



Direct Dial: 020-7901-7412  
11 December 2002

The National Grid Company, BSC Signatories and  
Other Interested Parties

Your Ref:  
Our Ref : MP No: P104

Dear Colleague,

**Modification to the Balancing and Settlement Code ("BSC") - Decision and Direction in relation to Modification Proposal P104: "Amendments to the Solution to P78 'Revised Definitions of System Buy Price and System Sell Price'"**

The Gas and Electricity Markets Authority (the "Authority")<sup>1</sup> has carefully considered the issues raised in the Urgent Modification Report<sup>2</sup> in respect of Modification Proposal P104, "Amendments to the Solution to P78 'Revised Definitions of System Buy Price and System Sell Price'".

The BSC Panel (the "Panel") recommended to the Authority that Proposed Modification P104 should be made with an Implementation Date of 25 February 2003 (consistent with the Implementation Date for Approved Modification P78), where an Authority decision is received by 13 December 2002.

The Authority has decided to direct a Modification to the BSC.

This letter explains the background and sets out the Authority's reasons for its decision. In addition, the letter contains a direction to The National Grid Company plc ("NGC") to modify the BSC in line with Modification Proposal P104, as set out in the Urgent Modification Report. This letter constitutes the notice by the Authority under section 49A Electricity Act 1989 in relation to the direction.

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<sup>1</sup> Ofgem is the office of the Authority. The terms "Ofgem" and "the Authority" are used interchangeably in this letter.

<sup>2</sup> ELEXON document reference P104UR, Version No. 1, dated 18 November 2002.

## Background

On 9 September 2002 the Authority approved Proposed Modification P78 with an Implementation Date of 25 February 2003. Approved Modification P78 changes the derivation of Energy Imbalance Prices such that there will be a main and reverse price. The reverse price will be derived from a market price based on short-term energy trades on the forwards and spot markets. The main price will be derived from NGC's Electricity Balancing actions to alleviate the Net Imbalance Volume ("NIV"). The NIV is calculated by netting off all System and Electricity Balancing purchase actions against all sell actions to give the imbalance of the overall transmission system. The main price is applied to imbalances in the same direction as the imbalance of the transmission system and the reverse price is applied to imbalances in the opposite direction.

Following the Authority's approval of Proposed Modification P78, it came to the attention of the Panel that two issues with the legal drafting to give effect to Approved Modification P78 exist with the potential to result in material errors in the calculation of Energy Imbalance Prices.

The first issue concerned the calculation of NIV. It was intended that the NIV be calculated following the application of De Minimis, Arbitrage and Continuous Acceptance Duration Limit ("CADL")<sup>3</sup> tagging (and following the re-inclusion of CADL volumes). However the legal text for the Approved Modification P78 did not reflect this intention and included De Minimis Acceptances and Arbitrage Acceptances in the calculation of NIV.

De Minimis Acceptances are generally spurious and arise because the Bid Offer Acceptance ("BOA") data passed by NGC to NETA Central Systems can only be specified to a finite level of accuracy. There is a complex interaction between BOA's and the way in which they are interpreted by the NETA Central Systems as a result of NGC instructions specifying to whole number of minutes or an integer volume of MW. Complex interaction between instructions from NGC and the NETA Central Systems can create spurious BOA's for small volumes. The De Minimis Acceptance Threshold is currently set at 1 MWh and Accepted Bids or Offers smaller in volume than this threshold are removed from the Energy Imbalance Price calculation.

Arbitrage Acceptances occur if the lowest priced Accepted Offer is lower than the highest priced Accepted Bid. These Arbitrage Acceptances are paired together and the matched equal MWh volumes are removed from the Energy Imbalance Price calculation. If any MWh volume of the matched Arbitrage Acceptances remain the matching process continues with the remaining quantities. This Arbitrage process continues until there remains no unmatched Accepted Offers that have an Offer Price that is lower than the highest priced unmatched Accepted Bid.

The second issue concerned the default Energy Imbalance Price rules. Where the default Energy Imbalance Price rules for Approved Modification P78 are invoked, they can be summarised as follows:

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<sup>3</sup> CADL is used to remove short duration BOAs associated with System Balancing actions from the Energy Imbalance Price calculation. BOA's are excluded from the calculation if they have a Continuous Acceptance Duration ("CAD") of less than the value of CADL, which is currently set at 15 minutes.

- if there is no Market Index Data available then the reverse price defaults to the main price (derived from the NIV);
- where there is a negative spread between the main and the reverse Energy Imbalance Prices (i.e. the System Sell Price is greater than the System Buy Price) then both the System Sell Price and the System Buy Price default to the main price;
- where the NIV is zero, then both the System Buy Price and the System Sell Price default to the reverse price calculated from Market Index Data; and
- where the NIV is zero and there is no Market Index Data available then both the System Buy Price and the System Sell Price will be zero.

Approved Modification P78 is silent on those circumstances where NIV is not zero but only contains System Balancing actions which have no price attached and so are ineligible for use to derive the main price.

Modification Proposal P104, "Amendments to the Solution to P78 'Revised Definitions of System Buy Price and System Sell Price'", was submitted on 17 October 2002 by the Panel. The justification for the Modification Proposal was the better facilitation of the achievement of Applicable BSC Objective<sup>4</sup> (d) 'Promoting efficiency in the implementation and administration of the balancing and settlement arrangements'.

The Proposer considers that at present, Approved Modification P78 contains an inconsistency in the calculation of the NIV and in the default Energy Imbalance Price rules. The Proposer considers that Modification Proposal P104 resolves these inconsistencies and prevents further expenditure in the implementation of Approved Modification P78, as the solution can be incorporated with little additional cost at this stage of development.

ELEXON recommended that Modification Proposal P104 should be treated as an Urgent Modification Proposal for the purposes of section F2.9 of the BSC. The Authority granted the Modification Proposal Urgent status and agreed the process and the time scale in accordance with Section F2.9 of the BSC on 21 October 2002.

## The Modification Proposal

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<sup>4</sup> The applicable BSC Objectives are contained in Condition C3.3 of NGC's Transmission Licence and are:

- (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) promoting efficiency in the implementation and administration of the balancing and settlement arrangements;
- (e) without prejudice to the foregoing objectives and subject to paragraph 3A, the undertaking of work by BSCCo (as defined in the BSC) which is:
  - (i) necessary for the timely and effective implementation of the proposed British Electricity Trading and Transmission Arrangements (BETTA); and
  - (ii) relevant to the proposed GB wide balancing and settlement code;
 and does not prevent BSCCo performing its other functions under the BSC in accordance with its objectives.

Modification Proposal P104 seeks to modify the BSC to amend two inconsistencies within the legal drafting of Approved Modification P78.

To address the inconsistency where the legal text for Approved Modification P78 erroneously included De Minimis and Arbitrage Acceptances in the NIV calculation, Modification Proposal P104 proposes removing De Minimis and Arbitrage Acceptances from this calculation.

To address the inconsistency with the default Energy Imbalance Price rules where NIV is not zero but only contains System Balancing actions, Modification Proposal P104 proposes that in this circumstance the main price would default to the reverse price.

Following the Authority's agreement that Modification Proposal P104 should be treated as Urgent, the final legal drafting for Modification Proposal P104 was completed. The Modification Group (the "Group") which undertook the Assessment Procedure for Approved Modification P78 considered the legal drafting by correspondence and at a meeting on Thursday 24 October 2002. The Group agreed the legal drafting.

The Proposed Modification does introduce some amendments to the NETA Central Systems, however as Approved Modification P78 is currently being developed and implemented, it is expected that the amendments for Modification Proposal P104 could be incorporated into the solution currently under development. Therefore, it is expected that there would be little additional development and implementation required.

ELEXON published an Urgent Draft Modification Report on 25 October 2002, which invited respondents' views by 5 November 2002.

### **Respondents' views**

In total, ELEXON received seven responses to the consultation on the Urgent Draft Modification Report. Of the responses all seven expressed support for the Proposed Modification.

In general respondents that supported the Proposed Modification considered that whilst the inconsistencies identified are minor, if not removed they may lead to material errors in the implementation of Approved Modification P78 and therefore the Proposed Modification promotes efficiency.

One respondent suggested that all of the possible scenarios with respect to the defaulting Energy Imbalance Price rules have still not been addressed. The respondent suggested that circumstances could arise where the NIV is not zero but only consists of System Balancing actions and there is no available market data to calculate the reverse price and that this scenario has not been addressed.

### **Panel's Recommendation**

The Panel met on 14 November 2002 and considered Modification Proposal P104, the draft Urgent Modification Report and the consultation responses received.

The Panel recommended that the Authority should approve the Proposed Modification and that, if approved, the Proposed Modification should be implemented on 25 February 2003 (consistent with the Implementation Date for Approved Modification P78), where an Authority decision is received by 13 December 2002.

The Panel considered the concern of one respondent that all of the possible scenarios with respect to the defaulting Energy Imbalance Price rules are still not addressed. The Panel noted that in the event the NIV is not zero but only consists of System Balancing actions and there is no available market data to calculate the reverse price both Energy Imbalance Prices would be set to zero. The Panel noted the expected rarity of these circumstances occurring and that the materiality of Energy Imbalance Prices being set to zero was considered to be low. Therefore the Panel unanimously agreed that no further action was required.

### **Ofgem's view**

Ofgem considers, having had regard to its statutory duties, that Modification Proposal P104 will better facilitate achievement of the Applicable BSC Objectives.

Ofgem considers that De Minimis Acceptances should be excluded from all aspects of the price setting calculation including the calculation of NIV because they are generally spurious. Ofgem also considers that Arbitrage Acceptances should not be included in the NIV calculation. The Arbitrage process involves matching the equal MWh volumes of Arbitrage Accepted Bids and Offers. As Arbitrage Accepted Bids and Offers are netted off against each other, including them in the NIV calculation, which nets off all System and Electricity Balancing purchase actions against all sell actions is therefore not necessary.

Ofgem considers that the proposed solution to address the inconsistency with the default Energy Imbalance Price rules where NIV is not zero but only consists of System Balancing actions is appropriate. Ofgem considers that in this circumstance the main price should default to the reverse price and that this is consistent with the intent of the default Energy Imbalance Price rules under Approved Modification P78.

Ofgem considers that Modification Proposal P104 appropriately addresses the inconsistencies in the legal drafting designed to give effect to Approved Modification P78. Ofgem agrees with the recommendation of the Panel that Modification Proposal P104 ensures efficiency in the implementation of Approved Modification P78 and therefore better facilitates achievement of the Applicable BSC Objective 3(d) 'Promoting efficiency in the implementation and administration of the balancing and settlement arrangements'.

Ofgem notes a respondent's view that not all of the possible scenarios with respect to the defaulting rules are addressed. Ofgem agrees with the Panel that the circumstances that could lead to both Energy Imbalance Prices being set to zero are rare. Ofgem notes that following the implementation of Approved Modification P78 and Modification Proposal P104 the Energy Imbalance Prices will be monitored by ELEXON.

### **The Authority's decision**

The Authority has therefore decided to direct that Modification Proposal P104, as set out in the Urgent Modification Report, should be made and implemented.

### **Direction under Condition C3 (5) (a) of NGC's Transmission Licence**

Having regard to the above, the Authority, in accordance with Condition C3 (5) (a) of the licence to transmit electricity granted to NGC under Section 6 of the Electricity Act 1989 as amended (the "Transmission Licence"), hereby directs NGC to modify the BSC as set out in the Urgent Modification Report.

The Implementation Date for Modification Proposal P104 is the 25 February 2003.

In accordance with Condition C3 (5) (b) of NGC's Transmission Licence, NGC shall modify the BSC in accordance with this direction of the Authority.

If you have any queries in relation to the issues raised in this letter, please feel free to contact me on the above number or contact Adam Higginson on 020 7901 7410.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Sonia".

**Sonia Brown**

**Director, Electricity Trading Arrangements**

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