

Direct Dial: 0171-901-

14 May 2001

The National Grid Company, BSC Signatories and
Other Interested Parties

Your Ref:
Our Ref : MP No: P10

Dear Colleague,

Modification Proposal P10: Eliminating Imbalance Price Spikes Caused By Truncating Effects

Ofgem has carefully considered the issues raised in modification proposal P10 'Eliminating Imbalance Price Spikes Caused By Truncating Effects' to the Balancing and Settlement Code (BSC). The panel recommended to the Authority that an alternative form of this modification (option 2A) should be implemented. The Authority agrees with the Panels recommendation and is directing National Grid Company plc (NGC) to make the modification, as we consider that the proposal will better facilitate the relevant objectives of the BSC. The modification will be made and implemented today (11 May 2001).

In this letter, we explain the background to the modification proposal and give our reasons for making our decision.

Background to the proposal

On 2 May 2001 NGC proposed a modification P10 to the BSC to modify the rules for the calculation of the system sell price (SSP) and the system buy price (SBP) to prevent spurious bid/offer acceptances (BOA's) from causing price spikes. NGC can instruct plant on a less than whole second and megawatt basis whereas the data passed to settlement can only be specified to the nearest minute and as a whole number of megawatts. NGC identified that price spikes had occurred by spurious BOA's registered by the settlement software as a result of truncating instructions to a whole number of minutes or an integer number of megawatts. On one occasion this resulted in a spurious acceptance in excess of £300.

NGC recommended that the modification proposal was treated as urgent. The Chairman of the Panel agreed with this recommendation. The Authority granted the modification urgent status for the purposes of Section F2.9 of the BSC on the 04 May 2001. The Authority also agreed the process and timetable for the modification.

The modification proposal

Modification P10 detailed two possible options for amending the BSC:

1. Option 1 was to amend the settlement rules to calculate the length of time corresponding to each accepted Bids/Offer pair, and exclude from the price setting calculation those with a duration of less than one minute; and
2. Option 2 was to invoke the default price calculation if the total volume of BOA's in a settlement period was less than 1MWh (for SBP) or greater than -1MWh (for SSP).

In Modification Proposal P10, NGC stated that option 1 would be marginally more effective (in the sense of excluding spurious acceptances, and not excluding genuine acceptances) however it was also recognised that this option would be more complex to implement, and therefore recommended option 2.

Having obtained the necessary confirmations that the Modification Proposal should be treated as urgent, an initial assessment was prepared for consideration by the Modifications Group (the Group). The initial assessment was considered by the Group on 9 May 2001. The Group agreed with NGC's preference for option 2. The Group did however identify that there was a problem with option 2 as a spurious BOA could still impact upon the price if the total volume of Acceptances exceeded 1 MWh, or if the spurious BOA was tagged for arbitrage and then set the level of a default price.

The Group therefore considered the two following variants on Option 2:

2A. To remove from the system price calculation individual BOA's whose volume was less than 1 MWh (for an Offer), or greater than -1 MWh (for a Bid).

2B. Disregard total acceptance volumes less than 1MWh in setting imbalance price as in option 2 but also change the logic for setting the default price so that BOA less than 1MWh will not drive the default price.

The Group (including the Proposer) considered that Option 2A was the preferred of the four options, in that it removed fully the price distortions caused by spurious Acceptances.

The Group further considered that:

- The "1 MWh" level should be a parameter set from time to time by the BSC Panel (initially set to 1MWh), rather than a value 'hard-coded' into the BSC (initially set to '1MWh'). This would allow the threshold to be "fine-tuned" based on market experience;
- Prices that are below the threshold should be removed from all aspects of the price-setting calculation. In particular, they should not be treated as arbitrage tagged for purposes of calculating default prices.

The Group recommended that the change be implemented on a Settlement Day basis, rather than a Calendar Day basis, such that it did not apply to Reconciliation runs for settlement dates prior to the change coming into effect. The Group recommended that the change should be made effective on the earliest Settlement Date that is possible and that the effective date should be the settlement date on which the Modification Proposal was raised i.e. 02 May 2001.

The Group noted that NGC's System Operator (SO) incentive scheme references system prices calculated in accordance with the BSC in effect at the start of the year. Any change to the price rules, such as P10, therefore raises possible questions in relation to this scheme. The view of the Group was that this issue was outside their terms of reference. They did however recommend that this potential issue should not cause the implementation of P10 in the BSC to be delayed.

The Group considerations were issued for consultation on 9 May 2001 with responses due back on 11 May 2001.

Respondents' views

In total Elexon received twelve response to the consultation on modification proposal P10. Of the respondents nine supported Option 2A and two opposed modification P10. Those who were opposed felt that further analysis was necessary and were concerned that genuine BOA's would be removed.

Panel Recommendation

The Panel met (by telephone conference) on 11th May 2001 (in accordance with Section B4.6 of the BSC) and considered the modification report, the views of the modification group and the consultation responses received. The Panel recommends to the Authority that Option 2A (removal of any accepted bids and offers with an accepted volume below a threshold level) should be implemented as soon as possible, as it better met the BSC objective of promoting efficiency in the implementation and administration of the balancing and settlements agreement (Condition 7A (3) (d) of the Transmission Licence).

The alternative modification recommended by the panel provides that the initial threshold level should initially be set to 1MWh and that the Panel should recommend to the Authority any change to the level giving notice to all interested parties of the change of 20 business days. It also provides that all such bids and offers should be excluded regardless of the number of the offer pair and that such bids and offers should be excluded from all aspects of prices setting including, inter alia, being included as arbitrage bids and offers.

The Panel recommended that the modification should be given effect from the start of the settlement day 11 May 2001. This would be the implementation date for the modification but systems implementation of the modification would follow and should proceed as quickly as is possible consistent with the need to ensure that software is adequately tested. The effect is that there would be a number of settlement days prior to implementation of the software change in which prices reported on BMRA, the Interim Information (and potentially Initial Settlement Runs) would not include the P10 changes (these would be correct by the first reconciliation). This is consistent with the implementation approach for Modification Proposal P3.

Furthermore, the Panel suggested that (in accordance with the BSC section F2.9.7), the Modification Proposal be submitted to review by a Modification Group to see if an alternative modification could better facilitate the achievement of the BSC objectives. The Panel also noted the Group's comment on the interaction of the modification Proposal with the NGC incentive scheme.

Ofgem's view

Ofgem is concerned that complex interaction between instructions from NGC and the settlement system can create spurious BOA's for small volumes and result in price spikes that do not reflect the costs incurred by NGC in achieving energy balance. Ofgem therefore considers that it is appropriate to modify the BSC, as we consider that it better facilitates the relevant objectives of BSC as set out in condition 7A of NGC's Transmission Licence.

The ideal solution to ensure that the anomalous prices identified do not occur is that settlement and operational systems are consistent. Ofgem does however recognise that this solution may take time to implement, would be significantly more complex to implement in the systems operated by the Central Service Providers and additionally substantially more expensive. Ofgem therefore agrees with the panel that option 1 is not appropriate in the short term.

Ofgem agrees with the concern that was identified by the Group that option 2 would leave the possibility that anomalous price spikes could still influence the default price if the modification was not extended to include arbitrage tagged trades. Ofgem therefore believes that option 2a better facilitates the relevant objective of the BSC of promoting effective competition by ensuring that all of the potential distortions on prices are removed. The result of this modification will be energy imbalance prices that are consistent with a properly functioning market and better reflecting the cost of keeping the system in energy balance.

Ofgem agrees with the panels recommendation that the initial threshold level should be set to 1MWh but that the Panel should keep this under review and may seek the Authorities approval to change the level (following consultation) giving notice to all interested parties of the change of 20 business days.

Ofgem recognises that option 2a is not ideal as it may result in genuine BOA's being excluded from the imbalance price setting calculation although this is extremely unlikely. Ofgem accepts the argument raised by one respondent that a BOA less than 1MWh is extremely unlikely to be representative of actions to counteract energy imbalances, as these can not be measured on NGC's systems and therefore would be treated as system balancing actions.

Ofgem recognises that in time a fuller solution to this problem may be identified however in the circumstances we believe that a more immediate solution to the anomalous price spikes is necessary. Ofgem therefore, welcomes the decision of the panel to submit the Modification Proposal to the Group to review and determine whether alternatives better facilitate the relevant objectives of the BSC.

Ofgem notes the concerns of both the Group and the Panel of the possible interaction between this modification and the NGC SO incentive scheme. The Utilities Act 2000 provides for the licencing of supply, generation and transmission of electricity. The Transmission Licence in condition 4F details the system operator incentives. These incentive arrangements are a matter for the Authority and not the BSC panel although the Authority takes very seriously and will consider the views expressed. Ofgem does however continue to keep these arrangements under review and would seek to alter the arrangements (through appropriate amendments to NGC's licence) if the Authority felt that this was appropriate in light of market developments including changes to the market rules. Ofgem would not however wish to introduce a retrospective change to the incentive arrangements or to make a judgement which is based on hindsight and factors which were not known at the time the incentives were set.

Ofgem's decision

Ofgem agrees with the panels recommendation that option 2A of Modification Proposal P10 should be made and implemented on 11 May 2001.

If you have any queries in relation to the issues raised in this letter, please feel free to contact me on the above number.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Stephen Smith', with several loops and flourishes.

Stephen Smith

Director, Trading Arrangements

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