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19 August 2004

National Grid Company, BSC Signatories and
Other Interested Parties

Our Ref: MP No P138

Dear Colleague,

Modification to the Balancing and Settlement Code ("BSC") - Decision and Notice in relation to Modification Proposal P138 "Contingency arrangements in relation to the implementation of Demand Control measures pursuant to Grid Code OC6"

The Gas and Electricity Markets Authority (the "Authority")[1] has carefully considered the issues raised in the Modification Report[2] in respect of Modification Proposal P138 "Contingency arrangements in relation to the implementation of Demand Control measures pursuant to Grid Code OC6".

The BSC Panel (the "Panel") recommended to the Authority that Proposed Modification P138 should not be made, but in the event that the Authority determines that the Proposed Modification should be made, the Implementation Date should be 3 November 2004 where the Authority's decision is received on or by 30 April 2004. Where the Authority's decision is received after this date but on or by 20 August 2004, the Panel recommended that the Implementation Date should be 23 February 2005.

The Authority has carefully considered the Modification Report and the Panel's recommendation and had regard to the Applicable BSC Objectives[3] and the Authority's wider statutory duties,[4] in

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1 Ofgem is the office of the Authority. The terms "Ofgem" and "the Authority" are used interchangeably in this letter. '

2 ELEXON document reference P138MR, Version No 1.0, dated 21 January 2004.

3 The Applicable BSC Objectives, as contained in Standard Condition C3 (3) of NGC's Transmission Licence, 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) 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.

4 Ofgem's statutory duties are wider than the matters that the Panel must take into consideration and include amongst other things a duty to have regard to social and environmental guidance provided to Ofgem by the government.

its assessment of Proposed Modification P138. The Authority has determined that Modification Proposal P1 38 would not better facilitate the Applicable BSC Objectives.

This letter explains the background and sets out the Authority's reasons for its decision.

Background

The Balancing Mechanism ("BM") was designed to enable National Grid Company plc ("NGC"), as the System Operator ("SO"), to, amongst other things, keep the transmission system (the "System") in balance close to, and in, real time by adjusting levels of generation and demand via the Bids and Offers submitted to the BM. Under the rules of the BSC, a Party is in a position of imbalance if its notified contract volume does not match its metered volume, i.e. me Party is producing or consuming electricity which is not covered by contracts. Imbalance settlement, or 'cash out', is designed so that any electricity not covered by contracts is paid for (or charged at) a cost reflective price. This price targets the costs that NGC has incurred in undertaking actions to match generation and demand ("Electricity Balancing") onto those Parties who are in imbalance, i.e. those Parties on whose behalf the SO has taken Electricity Balancing actions.

A dual Imbalance cash out mechanism currently exists where there are two cash out prices: System Buy Price ("SBP") and System Sell Price ("SSP"). If the System is short (i.e. total demand on the System is greater than the total supply of generation), SBP is the main price and is derived from a volume weighted average of the eligible Electricity Balancing actions taken by the SO to alleviate the Net Imbalance Volume ("NIV"). SSP is the reverse price and is derived from a market price based on short-term energy trades made on the forward and spot markets. If the market is long (i.e. the total supply of generation exceeds the total demand on the System), this situation is reversed, with SBP being derived from a market price, and SSP being derived from a volume weighted average of the eligible actions taken by the SO to alleviate the NIV. Parties that are short (i.e. generators whose physical output is less than their contracted volume or suppliers whose customers' demand exceeds their contracted volume) are charged SBP for their imbalance volumes and Parties that are long (i.e. generators whose physical output exceeds their contracted volume or suppliers whose customers' demand is less than their contracted volume) receive the SSP for their imbalance volumes.

The operating procedures and principles governing NGC's relationship with Users of its Transmission System are set out in the Grid Code. The Grid Code specifies procedures for both planning and operational purposes and covers both normal and exceptional circumstances. Operating Code 6 ("OC6") of the Grid Code concerns the provisions that Local Distribution System Operators ("LDSOs") and NGC must make to permit a reduction in demand in the event of insufficient generation being available to meet demand, or in the event of breakdown or operating problems on any part of NGC's Transmission System ("Demand Control"). Demand Control can be Initiated directly by the LDSO or via an instruction to the LDSO by NGC.

NGC, in its role as SO, may instruct an LDSO to reduce the demand on its system (for instance through voltage reduction) under OC6 if NGC considers that insufficient generation will be available to meet demand in a particular Settlement Period(s). In the event of such an instruction, customers that are supplied via that LDSO's system will record a lower metered volume than would have been the case had Demand Control not been initiated.

The BSC contains no specific provisions for imbalance cash out in the event of Demand Control. Therefore a supply Party whose customers have been affected by Demand Control will be cashed-out at a longer position than if there had not been Demand Control since its customers' metered volumes (i.e. their actual offtake) will be lower than would otherwise have been the case, but its contracted position will remain the same. This could result in a supplier that would have been short prior to Demand Control becoming long as a result of it.

The Modification Proposal

Modification Proposal P138 was submitted on 8 August 2003 by Innogy plc. Modification Proposal P138 seeks to modify the BSC such that the volume of demand reduced via Demand Control be treated as an Offer acceptance priced at the marginal Offer Price taken by the SO in the first period in which Demand Control is instructed (this marginal Offer price would then persist throughout the duration of Demand Control period). For the purpose of imbalance cash out, the Modification Proposal seeks to treat the "Demand Control Offer" consistently with any other Offer taken in the BM. In addition, the Modification Proposal seeks to adjust Energy Account volumes to reflect lost demand (i.e. affected supply Parties would be cashed out at what their imbalance positions would have been if Demand Control had not occurred). A more detailed description of the proposed mechanism can be found in the Modification Report.

It was the view of the Proposer that Modification Proposal P138 would better facilitate achievement of the Applicable BSC Objectives for the following reasons:

- Remove inconsistency in cash out: supply Parties whose volumes are reduced by Demand Control would have their volumes corrected (unwound) to the position that each Party would have been in had Demand Control not occurred;
- Appropriate incentives on supply Parties: since the Demand Control volume would feed into the Offer stack at the marginal price it would tend to increase SBP and therefore sharpen the incentives on supply Parties to contract ahead in the forward and spot markets in order to avoid exposure to this higher SBP, which in turn would reduce the likelihood of Demand Control being instructed; and
- Incentives on NGC: under the current arrangements, Demand Control is, in the view of the Proposer, a "free option" for NGC. In putting a price on Demand Control (i.e. treating it as an Offer), NGC will be appropriately incentivised to contract ahead in order to avoid having to instruct Demand Control. This in turn should stimulate the demand side to come forward with commercial demand reduction services to sell to NGC.

The Proposer therefore considered that Modification Proposal P138 would better facilitate achievement of the Applicable BSC Objective C3(b) for the efficient, economic and co-ordinated operation by NGC of the Transmission System and Applicable BSC Objective C3(c) for the promotion of 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.

Pricing Issues Standing Modification Croup considerations

The Panel considered the Initial Written Assessment for Modification Proposal P138 at its meeting of 11 September 2003. The Panel agreed to submit the Proposed Modification to a three month Assessment Procedure with the assessment to be undertaken by the Pricing Issues Standing Modification Group ("PSMG"), supported by members of the Volume Allocation Standing Modification Group ("VASMG") and Licensed Distribution System Operators ("LDSOs").

Following its assessment of the Proposed Modification, the PSMG was unable to reach a consensus view as to whether the Proposed Modification would better facilitate achievement of the Applicable BSC Objectives. The views expressed by PSMG members both in support of and against the Proposed Modification can be found in full in the Modification Report. A summary of the substantive points raised follows here.

Applicable BSC Objective C3(b) for the efficient, economic and co-ordinated operation by NGC of the Transmission System

The views expressed at the PSMG in support of the Proposed Modification essentially reflected the view of the Proposer. The view was expressed that treating Demand Control as an Offer (i.e. an instruction by the SO issued to meet energy requirements) would place the appropriate incentives on NGC and supply Parties to ensure that the cost of Demand Control is appropriately targeted.

One view expressed at the PSMG against the Proposed Modification was that treating Demand Control as an Offer for the purpose of imbalance cash out would not send signals to the market in sufficient time for the market to react, since such a signal would only arise once Demand Control had been instructed. These members considered that, although it is possible for imbalance cash out prices to send signals to market participants when past imbalance prices alter expectations of likely future levels, the mechanism put forward by the Proposed Modification would be likely to be required so infrequently that market participants would have insufficient experience of the relevant prices for it to alter their future expectations.

Another view expressed against the Proposed Modification was that it would increase imbalance cash out prices only at the expense of the SO paying supply Parties what is effectively a "windfall payment" following Demand Control. It was argued that this "windfall payment" could reduce incentives on supply Parties to balance as, in the event of Demand Control, such a payment could reduce or negate any increase in imbalance exposure faced by supply Parties that are short.

In addition, the view was expressed that Demand Control is an operationally driven decision taken by the SO to ensure the overall System stability rather than an option available to the SO based upon economic rationale. As such, treating Demand Control as an Offer would not impact the level of reserve held by the SO and would do nothing to prevent insufficient generation being contracted by supply Parties, which is ultimately the cause of Demand Control.

A further view expressed against the Proposed Modification was that it would lead to increased uncertainty in the market in relation to imbalance cash out prices and Residual Cashflow Reallocation Cashflow ("RCRC") payments as the volume and price associated with the Demand Control Offer would not be known until after the event.

Applicable BSC Objective C3(c) for the promotion of 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

Again the views expressed at the PSMG in support of the Proposed Modification essentially reflected the view of the Proposer. The view was expressed that, by treating Demand Control as an Offer, it would reduce the potential financial risks to supply Parties associated with Demand Control measures. Further, the view was expressed that, since Parties affected by Demand Control would have their volumes unwound to the imbalance position they would have been in had Demand Control not occurred, the proposal would reduce the potential for inconsistent imbalance cash out. This in turn would remove the perverse incentive on supply Parties that are short to under contract and would reduce the potential for cross-subsidy between Parties in balance (or long) and Parties that are short (and potentially contributing to the requirement for Demand Control to be taken).

One view expressed at the PSMG against the Proposed Modification was that it would be inappropriate for supply Parties to be paid a "windfall payment" in the event of Demand Control since the choice of which LDSO area is to be subject to Demand Control is made by the SO, without any involvement of Suppliers, who take no action and therefore should not be rewarded.

In addition, the view was expressed that the Proposed Modification could introduce a perverse incentive on supply Parties to act so as to increase the likelihood of Demand Control (for instance to take an increasingly short position) since the possibility would exist for them to receive a "windfall payment" via the Demand Control Offer. This would represent a subsidy through the BSUoS'[1] charge from the market as a whole to those supply Parties affected by Demand Control.

Another view expressed against the Proposed Modification was that, in instances where Demand Control is implemented through the disconnection of specific loads, the Demand Control Offer payment would be spread across all supply Parties in the affected area rather than being targeted to the supply Party whose load was disconnected.

A further view was expressed that, on the basis of a simple model of the industry (which included the impact on Parties of the various cashflows such as Bid/Offer cashflows, RCRC and BSUoS cashflows) presented at the PSMG, the net impact upon market participants of the proposal would be arbitrary. In addition, it was argued that the range of different volumes,

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In order to keep the System in balance in real time, the SO procures a range of Balancing Services from service providers. Parties (both suppliers and generators) pay for the cost of these Balancing Services through Balancing Services Use of System ("BSUoS") charges. BSUoS charges are comprised of the following costs: the costs of the BM, i.e. Bid and Offers accepted by the SO: Balancing Services contract costs e.g. frequency response, black start, etc; NGC incentive payment (or receipt:; and internal costs of the SO function e.g. salaries, facilities, etc.

prices and imbalance positions that could be in place when Demand Control is initiated means that no single Party can be certain of being better or worse off, in particular, as Parties will not know beforehand whether they will be subject to Demand Control. As a result, the view was expressed that the Proposed Modification would be unlikely to change the behaviour of any Party.

Applicable BSC Objective 3(d) tor the promotion of efficiency in the implementation and administration of the balancing and settlement arrangements

One view expressed at the PSMG in support of the Proposed Modification was that it was appropriate to include contingency arrangements in the BSC associated with Demand Control and that as the costs associated with implementing a manual solution for Proposed Modification P138 were small, implementation of the proposal would have an overall positive impact on the efficiency in the implementation and administration of the balancing and settlement arrangements.

One view expressed at the PSMG against the Proposed Modification was that it would add significant complexity to the trading arrangements and that its over reliance on estimates to calculate the Demand Control volume and lack of prompt pricing in respect of cash out prices would not promote efficiency in the implementation and administration of the balancing and settlement arrangements.

ELEXON published a draft Modification Report on 1 7 December 2003 which invited respondents' views by 5 January 2004.

Respondents' views

ELEXON received eight responses (including that of the Proposer) to the consultation on the draft Modification Report in respect of Proposed Modification P138. Three respondents supported the Proposed Modification, four respondents did not support the Proposed Modification, and the remaining one respondent provided a "no comment" response. The original Proposer was amongst the respondents that considered that the Proposed Modification should be made.

No new substantive issues were raised during the consultation that had not already been raised during the Assessment Phase. The views expressed by consultation respondents can be found in full in the final Modification Report.

Panel's recommendation

At its meeting of 15 January 2004, the Panel noted the responses to the consultation on the draft Modification Report in respect of Proposed Modification P138 and confirmed its Provisional recommendation that Proposed Modification P138 would not better facilitate achievement of the Applicable BSC Objectives and recommended unanimously to the Authority that the Proposed Modification should not be made.

It was the view of the Panel that the SO should not have to pay for the market's inability to deliver sufficient generation to meet demand. The Panel noted that the response received from the SO to the Assessment Procedure consultation stated that 'charging National Grid for taking Demand Control will have no impact on its behaviour' and 'Demand Control will occur whether or not there is a cost associated with it'. However, the Panel believed that there should be contingency arrangements for Demand Control in the BSC but the solution put forward by Proposed Modification P138 was not the correct solution. It was the Panel's view that, it required, a BSC Party could raise this issue for consideration by a Standing Modification Group.

Ofgem's GB Consultation

On 22 January 2004, Ofgem issued a GB consultation in respect of Proposed Modification P1 38 inviting responses that identify additional implications for GB, by 6 February 2004. Ofgem received two responses to this consultation. Neither of the respondents raised any additional implications that would result from the implementation of Proposed Modification P1 38 on a GB basis compared to an England and Wales basis.

Ofgem's view

Having carefully considered the Modification Report, the views of the PSMG, the respondents' views and the Panel's recommendation, Ofgem, having regard to the Applicable BSC Objectives and its statutory duties, agrees with the majority of respondents and the Panel that Proposed Modification P1 38 would not better facilitate achievement of the Applicable BSC Objectives. In addition, Ofgem considers that this decision is consistent with its wider statutory duties.

The Proposer considered that Proposed Modification P1 38 would better facilitate achievement of Applicable BSC Objective (b) of the BSC in relation to the efficient, economic and co-ordinated operation by the licensee of the licensee's transmission system by ensuring that demand control periods wilt be utilised effectively under the BSC. Furthermore, the Proposer considered that the Proposed Modification would create the correct incentive for NGC to ensure that the cost of demand control is appropriately incurred. By treating demand control as a BM action and removing the potential financial risks associated with demand control measures, the Proposer considered the Proposed Modification would better facilitate achievement of Applicable BSC Objective (c) in relation to the promotion of effective competition in the generation and supply of electricity, and (so far as is consistent therewith) promoting such competition in the sale and purchase of electricity. Specifically, by removing the risk that parties are exposed to high and unpredictable imbalance charges and RCRC during a demand control period.

It is clearly important that Energy Imbalance prices create appropriate commercial incentives on generators and suppliers at all times. The current rules for calculating Energy Imbalance Prices were designed to do this by reflecting the costs that NGC incurs in buying and selling energy to keep the system in balance.

The Proposed Modification is based on the assumption that the current arrangements do not create appropriate commercial incentives either on market participants or on NGC as System Operator during periods of system stress when NGC has to instruct demand control. Specifically, the proposal assumes that under the current arrangements, SBP would be too low during periods where demand control would be initiated and that NGC is not exposed to any costs when demand control is initiated. The proposal seeks to sharpen the incentives on participants and NGC by using the marginal offer price from the balancing mechanism prior to demand control to value any demand control volumes when setting Energy Imbalance Prices.

Having carefully considered all of the arguments and evidence presented in the Final Modification Report, Ofgem is not satisfied that the assumed defect in the current arrangements would actually exist in the conditions identified.

It is not clear to Ofgem, on the basis of the analysis and evidence presented, that SBP would be too low under the existing arrangements during periods where demand control had been used. During periods of system stress, the margin between supply and demand would be very tight and Ofgem would expect prices in the short term exchanges and the balancing mechanism to reflect this scarcity. If the proposal was implemented, it could lead to situations where SBP was too high and did not reflect the costs that NGC incurred in balancing the system. This is because it would use the marginal offer price from the Balancing Mechanism and this offer price could be associated with a very small volume action that did not reflect the costs to NGC of balancing the system during the relevant period. The use of the marginal price could also increase the risk of gaming and/or manipulation.

Ofgem does not consider that demand control can be considered a "free option" for NGC under the current arrangements. NGC's actions, as System Operator, are carefully monitored by market participants and Ofgem. NGC must, at all times, comply with various statutory and licence obligations that relate to the operation of the transmission system. If NGC used demand control inappropriately, Ofgem has the power to investigate and, if appropriate, take enforcement action.

The proposal would also introduce a discontinuity into the arrangements as the rules used to calculate cash out prices would differ depending on whether or not demand control had been instructed. Ofgem is concerned that this discontinuity could give rise to unintended consequences and/or perverse incentives on market participants. If the system was under stress, a market participant who was long might, for example, seek to force NGC to instruct demand control if they thought that they would be better off under the cash out arrangements under demand control conditions.

It is Ofgem's view, therefore, that Proposed Modification P1 38 would not better facilitate achievement of Applicable BSC Objective (b) as it has not been demonstrated that the Proposed Modification would, compared with the current arrangements, improve the efficient, economic and co-ordinated operation by the licensee of the licensee's transmission system.

Furthermore, Ofgem does not consider that the proposal would better facilitate the achievement of Applicable BSC Objective (c). It has not been demonstrated that the current arrangements give rise to inappropriate commercial incentives and the proposal could, if implemented, give rise to imbalance prices that are too high during periods of demand control. It could also increase the risk that demand control was called by creating a discontinuity in the rules.

Future developments

On 1 March 2004, Ofgem published a letter setting out its intention to carry out a review of cash out arrangements in the electricity and gas markets. On 1 7 May 2004, Ofgem published a consultation document which initiated the review of the gas and electricity cash out arrangements." On 18 August 2004, Ofgem published an open letter,[7] establishing a working group to enable wider consideration of issues relating to both the gas and electricity cash out arrangements. This group is due to begin its assessment in September 2004.

This working group may provide the opportunity for further consideration of the issues raised during the Modification Process for Modification Proposal P138.

Please contact me on the above number if you have any queries in relation to the issues raised in this letter. Alternatively, contact Matthew Buffey on 020 7901 7088.

Yours sincerely

Kyran Hanks
Director, Wholesale Markets
Signed on behalf of the Authority and authorised for that purpose by the Authority

″ 'Electricity and gas cash nut review. A consultation document', Ofgem, May 2004.
'*GAS* and electricity cash out review: the way forward', Ofgem, August 2004.