
Meeting name	BSC Panel
Date of meeting	9 April 2009
Paper title	Standing Issue 35 Report
Purpose of paper	For Information
Synopsis	Utilita raised Standing Issue 35 'Timing of Gate Closure and Related Matters' to consider whether advancing either Gate Closure or the deadline for submission of contract notifications could reduce imbalance risk for Parties. In this paper we summarise the Group's conclusions, and provide its full discussions in Attachment A. The Group invites you to note its conclusions, and that Issue 35 has now been closed.

1 Objectives

- 1.1 Gate Closure currently occurs one hour before the start of the Settlement Period (T-60). Utilita asked the Issue 35 Group to examine the feasibility and implications of allowing Parties to submit their physical and/or contract notifications closer to real-time. In particular, Utilita requested that the Group consider whether this could reduce Parties' risk of imbalance exposure.
- 1.2 The Group met three times to consider these questions.

2 Summary of discussion

2.1 The Group identified three potential Modification Proposals which could be raised:

- **Potential Modification 1:** Make Gate Closure for both physical and contract notifications closer to the start of the Settlement Period.

The same Gate Closure would apply equally to all Parties. The Group agreed that any Modification Proposal in this area should allow a Modification Group to analyse the effects of different, shorter Gate Closure timings (e.g. T-45, T-30 or T-15).

- **Potential Modification 2:** Keep Gate Closure at T-60 for physical notifications from 'large' generators (e.g. >100MW), but move Gate Closure to T-30 for physical notifications from other types of Party whose notifications are deemed to be less critical to the Transmission Company (e.g. small intermittent generators and Suppliers).

Allow all Parties to submit contract notifications up to T-30.

- **Potential Modification 3:** Retain the existing T-60 Gate Closure for both physical and contract notifications, but make it easier for Parties to submit contract notifications as close to this Gate Closure as possible.¹

The Group agreed that any Modification Proposal in this area should include the following two options, so that their relative costs and benefits could be assessed further by a Modification Group:

¹ The Energy Contract Volume Aggregation Agent (ECVAA) can currently take 20 minutes to validate a contract notification. The Code allows Parties to notify their contracts right up to Gate Closure. However, many Parties choose to do so 30 minutes before Gate Closure (T-90), so that they have time to re-notify any which fail validation and thereby avoid the risk of imbalance exposure.

- **Option A:** Reduce the time taken by the ECVAA to validate contract notifications, so that validation is as near-instantaneous as possible (this was the Group's preferred option); and
- **Option B:** If Option A is not feasible (e.g. due to cost), allow Parties to submit contract notifications after Gate Closure providing they can prove that the relevant contracts were struck before Gate Closure (e.g. through time-stamping).

2.2 The Group identified possible benefits and disadvantages for each potential Modification Proposal. It also agreed areas of further analysis which should be undertaken during the Modification Process to more fully establish the extent of any impacts, costs and benefits.

2.3 Attachment A contains the Group's full discussions.

3 Conclusions

3.1 The Group:

- Remained unconvinced of the benefits of Potential Modifications 1 and 2, but agreed that it had provided enough information for a Party to take these forward if desired;
- Agreed that Potential Modification 3 was its preferred solution, and that it would support a Party raising a Modification Proposal to progress this;
- Agreed further areas of analysis that should be undertaken during the progression of any Modification Proposal (the Group agreed that it was not the role of the Issue process to undertake detailed analysis of impacts, costs or benefits);
- Noted that such analysis would fall outside ELEXON's expertise and agreed that it would therefore be appropriate to commission external consultant analysis as part of the Modification Process; and
- Agreed to close Issue 35.

4 Recommendations

4.1 The Group invites the Panel to:

- a) **NOTE** its discussions and conclusions;
- b) **NOTE** its support for commissioning external consultant analysis as part of the assessment of any resulting Modification Proposal; and
- c) **NOTE** that Issue 35 is now closed.

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List of attachments

Attachment A – Issue 35 Group's detailed discussions

Issue 35 Group's detailed discussions

1. Background

Each Settlement Period has a **Gate Closure** which serves two purposes:

1) Finalising Parties' expected physical positions

The Grid Code requires certain generators and Suppliers to submit **Physical Notifications (PNs)** to the Transmission Company for each Settlement Period, containing details of their expected physical positions (i.e. their expected level of generation/consumption).

At Gate Closure, the prevailing PNs from these Parties become 'firm' and are referred to as **Final Physical Notifications (FPNs)**. The Transmission Company uses these FPNs to gain a final view of the expected levels of supply and demand across the Transmission System for the Settlement Period.

The more accurate FPNs are, the more efficiently and economically the Transmission Company will be able to balance the System – providing that FPNs are established far enough in advance of the Settlement Period for it to be able to take the most efficient/economical actions.

2) Finalising Parties' contracted positions

The BSC requires generators and Suppliers to notify the Energy Contract Volume Aggregation Agent (ECVAA) of any **contracted positions** for each Settlement Period (i.e. any amounts of energy which they have contracted to buy from or sell to other Parties).

These **contract notifications** must be submitted by Parties' chosen notification agents before Gate Closure for the Settlement Period. They are used by the BSC Systems to calculate each Party's imbalance. The difference between a Party's contracted position and its actual Metered Volume for the Settlement Period is exposed to the relevant Imbalance Price.

The more accurately a Party is able to forecast its expected generation/consumption, and the more able it is to trade with other Parties to sell/buy this amount, the smaller its imbalance exposure will be.

Gate Closure for both physical and contract notifications currently occurs **one hour** before the start of the Settlement Period.

During the discussions for **Issue 30 'Cash-out review'**, it was suggested there might be benefits in moving Gate Closure for physical and/or contract notifications (see Appendix 5 of the [Issue 30 Report](#)).

Utilita raised [Issue 35](#) to consider this suggestion further.

2. Aim of Issue 35

Utilita asked the Group to consider whether advancing either Gate Closure or the deadline for submission of contract notifications could reduce **imbalance risk** for Parties.

In particular, the Proposer requested that the Group examine:

- The feasibility and implications of shortening the time between Gate Closure and the start of the Settlement Period (T) from its existing one hour (T-60) timing;
- The potential impacts of moving Gate Closure on:
 - Balancing and imbalance (including both central and participant systems);
 - Trading through the APX¹ and Settlement; and
 - System Operator actions and balancing efficiency;
- The most appropriate shortened Gate Closure timing (e.g. T-45, T-30 or T-15);
- Whether the deadline for contract notifications could be shortened on its own, and the implications of doing so; and
- Whether there would be any impact on the quality and spread of the Reverse Price.

3. Issue or defect to be addressed

The Group considered the above questions, as well as a further [note](#) which was submitted to the Group by the Proposer's representative.

The Group agreed that the main issue raised was the **higher imbalance risk experienced by small Parties** and that the key question appeared to be:

- **Could this risk be reduced by moving the timing of Gate Closure for physical and/or contract notifications nearer to the start of the Settlement Period?**

The Proposer's representative argued that, as a principle, Parties should be able to trade as near to the start of the Settlement Period as possible. They believed that the closer to real-time Parties are able to submit physical and contract notifications, the **more accurate FPNs and Supplier forecasting** will be, and the more able Parties will be to **trade out of imbalance** through their contracts.² However, they noted that there are practical reasons why a Gate Closure is needed (e.g. the Transmission Company needs time to make any necessary balancing instructions to Parties in advance of the Settlement Period). The Proposer's representative therefore considered that the question was how short the time between Gate Closure and the start of the Settlement Period could be made without either compromising the Transmission Company's ability to balance the System or reducing incentives on Parties to balance.

The Group noted that other areas (e.g. **liquidity** and **credit**) were also cited in the note from the Proposer's representative. The Group considered that changing the timings around Gate Closure would only form a small part of any solution to these wider, complex industry issues.

4. Potential Modification Proposals

The Group identified three potential Modification Proposals which could be raised. These are summarised below.

¹ APX Power UK is a power exchange offering a market place for integrated trading, clearing and notification for spot and prompt power contracts and a trading platform for cleared forwards contracts.

² A comparison of historic FPNs and Metered Volumes under the existing Gate Closure arrangements is available from ELEXON's [website](#).

Potential Modification 1 – Move Gate Closure for both physical and contract notifications

Scope of Modification: Make Gate Closure for both physical and contract notifications closer to the start of the Settlement Period. The same Gate Closure would apply equally to all Parties.

The Group agreed that any Modification Proposal in this area should allow a Modification Group to analyse the effects of different, shorter Gate Closure timings (e.g. T-45, T-30 or T-15).

Potential benefits	Potential disadvantages
<p>1) Allowing Parties to base their PNs on information which is closer to real-time could facilitate:</p> <ul style="list-style-type: none"> • More accurate Supplier forecasting; and • More accurate FPNs (some members suggested this would in turn deliver potential efficiency gains to the Transmission Company). <p>2) Shortening Gate Closure for contract notifications could reduce small Parties' imbalance exposure by giving them more time to trade.</p> <p>3) Extra trading time could also help increase market liquidity if it results in higher volumes of trades.</p>	<p>1) Shortening Gate Closure for PNs could reduce the Transmission Company's ability to balance the Transmission System efficiently and economically, leading to increased balancing costs.</p> <p>This is because:</p> <ul style="list-style-type: none"> • A one-hour Gate Closure allows the Transmission Company to take a final view of the System based on FPNs, and then issue plant instructions for the Settlement Period.³ A shorter Gate Closure would reduce its ability to use such 'reactive' balancing actions and would require it to take more 'pre-emptive' actions before Gate Closure and outside the Balancing Mechanism (BM).⁴ • These actions could be less transparent to the industry, less accurate/flexible (as they are fixed further in advance) and therefore less efficient and/or economical. • A shortened Gate Closure would require the Transmission Company to develop new business/operational processes and make system changes. These could have considerable cost implications. <p>2) If a shorter Gate Closure requires the Transmission Company to contract forward for more volume, then this could reduce liquidity as this volume would then not be available for the rest of the market.</p> <p>3) A shorter Gate Closure could have security and safety implications for the Transmission System because:</p> <ul style="list-style-type: none"> • The Transmission Company does not have a certain view of the System until it establishes FPNs at Gate Closure; • A shorter Gate Closure would leave less time for the Transmission Company's Control Room to optimise the System (e.g. to take actions to resolve constraints); • The current BM Systems require some manual intervention, which becomes more difficult in shortened timescales. Although more automated systems are being considered as part of National Grid's BM Systems Replacement project, any new systems will not be delivered until 2012.

³ Conventional plant takes between 60-90 minutes to come on the System. A one-hour Gate Closure therefore allows the Transmission Company enough time to instruct a plant to begin generating in the Settlement Period. Similarly, it takes time for plant to stop generating.

⁴ These could include Pre-Gate Closure Balancing Mechanism Transactions (PGBTs) and/or BM Start-Up contracts.

Potential benefits	Potential disadvantages
	<p>4) It is not certain that a longer trading time will actually result in more trades being made (see Section 5).</p> <p>5) The Code allows the ECVAA 20 minutes to validate contract notifications. Many Parties may therefore still choose to notify their contracts 30 minutes before whatever Gate Closure time is set, reducing the benefits (see Proposed Modification 3).</p>

Further information on the potential effects for the Transmission Company can be found in National Grid's [presentation](#) to the Group.

Conclusion: The Group was unconvinced of the merits of moving Gate Closure for all physical notifications, given the possible implications for System-balancing. However, the Group did develop a list of areas for further analysis which it agreed should be undertaken were a Party to raise a Modification Proposal (see Section 5). Some members also suggested that the potential for moving Gate Closure could be re-examined after 2012 once new, and potentially more-automated, BM Systems are in place.

Potential Modification 2 – Move Gate Closure for some physical notifications and all contract notifications

Scope of Modification: Keep Gate Closure at T-60 for PNs from 'large' generators (e.g. >100MW), but move PN Gate Closure to T-30 for other types of Party whose FPNs are deemed to be less critical to the Transmission Company (e.g. small intermittent generators and Suppliers). Allow all Parties to submit contract notifications up to T-30.

In effect, this solution would put in place three Gate Closures.

The Group agreed that there would be no benefit in shortening Gate Closure purely for physical notifications, as this would have no financial effect unless the deadline for contract notifications was also moved.

Potential benefits	Potential disadvantages
<p>1) The Transmission Company relies more on its own demand forecasting than Supplier FPNs. Allowing Suppliers an extra 30 minutes to submit their PNs could therefore facilitate more accurate Supplier forecasting, without adversely impacting the Transmission Company's ability to balance the System.</p> <p>2) FPNs from intermittent generators are known to be inaccurate due to the unpredictable nature of their fuel source. It is therefore questionable how useful these FPNs are to the Transmission Company at present. Allowing an extra 30 minutes for these generators could increase the accuracy of their FPNs. Given that their actual output depends on the availability of their fuel source (e.g. wind), it must be an advantage to provide their best estimate to the Transmission Company.</p>	<p>1) If the amount of intermittent generation increases, would a shorter Gate Closure for these generators cause problems for the Transmission Company in balancing the System?</p> <ul style="list-style-type: none"> The Transmission Company still needs to account for expected volumes of intermittent generation in its decision-making (e.g. when taking actions to resolve constraints). A shorter Gate Closure for intermittent generators would mean that these participants would be changing their positions while the Transmission Company is trying to balance. The Grid Code Review Panel is currently considering whether more intermittent generators should be required to submit PNs – this suggests that PNs from these generators are becoming more important.

Potential benefits	Potential disadvantages
<p>3) Allowing all Parties to submit their contract notifications up to T-30 could help reduce their imbalance risk and could increase liquidity if it results in more trades. Small Suppliers and intermittent generators would be able to submit their PNs and contracts together at T-30 – giving them more time to accurately predict their position and trade out of imbalance.</p> <p>4) Introducing a different Gate Closure for a subset of Parties would not be unduly discriminatory, as there are already different PN rules for different sizes of Party (e.g. the Grid Code does not require very small generators to submit PNs).</p>	<p>2) Introducing a shorter Gate Closure for only some Parties could be viewed as discriminatory.</p> <p>3) Having three different Gate Closures could increase complexity and have cost implications for the Transmission Company and the BSC Systems.</p> <p>4) Allowing some Parties to submit their contract notifications later than their PNs could create incentives for a Party to deviate from its FPN – causing issues for the Transmission Company.⁵</p> <p>5) It is not certain that a longer trading time would in practice result in more trades being made by small Suppliers and intermittent generators (see Section 5).</p> <p>6) The Code allows the ECVA 20 minutes to validate contract notifications. If the deadline for submissions is set at T-30, many Parties may choose to notify their contracts at T-60 – reducing the benefits (see Proposed Modification 3).</p> <p>7) Having different Gate Closures could make it more complex for larger company groups to trade between their different Parties (e.g. if a large Supplier wished to offset some of its demand with the generation from a small wind farm which it also owned).</p>

Conclusion: The Group was unconvinced of the merits of this solution, due to its complexity and the potential for it to be viewed as discriminatory. However, the Group did develop a list of areas for further analysis which it agreed should be undertaken were a Party to raise a Modification Proposal (see Section 5).

Potential Modification 3 – Facilitate the ability to trade as close to Gate Closure as possible

Scope of Modification: Retain the existing T-60 Gate Closure for both physical and contract notifications, but make it easier for Parties to submit contract notifications as close to this Gate Closure as possible.

The Group identified two potential options for this solution:

- **Option A:** Make the ECVA's validation of contract notifications (i.e. the issuing of ACKs and NACKs⁶) as near-instantaneous as possible; or
- **Option B:** Allow Parties to submit contact notifications after Gate Closure, providing they can prove that the relevant contracts were struck before Gate Closure (e.g. through time-stamping⁷).

⁵ The Group noted that the Grid Code requires Parties to submit accurate PNs, but queried how strong an incentive this would be. Some members argued that these kind of issues were behind the original intention of NETA that PNs and contracts should be finalised in parallel. Other members suggested that different incentives could be introduced (e.g. by setting the Information Imbalance Price to a non-zero amount).

⁶ Acknowledgements and Negative Acknowledgements.

[Section P](#) of the Code and [BSCP71](#) currently give the ECVAAs 20 minutes to validate a contract notification and return an ACK or NACK. The Group noted that the consequences of failing validation can be severe for a Party since, if it does not have time to resubmit the notification, the energy volume concerned will become exposed to the relevant Imbalance Price. The Group noted that, while the Code allows Parties to submit contract notifications right up to Gate Closure (T-60), many Parties in practice submit their notifications 30 minutes earlier (T-90) in order to avoid this risk. Trading over the APX closes at T-90 for the same reason.

Option A was the Group's preferred option. However it agreed that, if this option subsequently proved not to be feasible (e.g. due to cost), there would be merit in considering Option B. The Group therefore agreed both options should be included in any Modification Proposal, so that their relative costs and benefits could be assessed further by a Modification Group.

The Group's discussions focused on Energy Contract Volume Notifications (**ECVNs**) rather than Metered Volume Reallocation Notifications (**MVRNs**). However, any Modification Proposal should consider whether the same rules should apply to both types of notification, as the Code currently treats them consistently.

Potential benefits	Potential disadvantages
<p>1) Option A would facilitate the Code's original intention for Parties to submit physical and contract notifications simultaneously.</p> <p>2) Options A and B would give extra trading time to those Parties who currently submit contract notifications at T-90. If they are able to make more trades as a result, this could reduce their imbalance exposure and have potential liquidity benefits.</p>	<p>1) Making ACKs and NACKs near-instantaneous would not necessarily mean that all contracts would be notified just before T-60. Parties would still need time to resubmit any notifications which fail validation, and might therefore continue to notify their contracts further in advance of Gate Closure.⁸</p> <p>2) If Option B is progressed, the Modification Group would need to consider any potential for gaming (e.g. the possibility that false time-stamps could be used).</p> <p>3) It is not certain that a longer trading time would in practice change existing trading patterns (see Section 5).</p>

Conclusion: The Group agreed that it would support a Party raising a Modification Proposal to progress this solution. The Group also developed a list of areas for further analysis which it agreed should be undertaken during the assessment of the Modification Proposal (see below).

5. Suggested further analysis if a Modification Proposal is progressed

The Group agreed that to prove the benefits of any of the three potential Modification Proposals it would be necessary to undertake analysis of:

- **Whether** the change would result in an increased amount of trading volumes prior to Gate Closure;
- **What** the volume of additional energy might be; and
- **Where** this energy would come from.

⁷ Trades made through the APX are electronically date/time-stamped. If this solution option is progressed, a Modification Group would need to consider whether only these trades would be eligible for notification after Gate Closure, or whether another way of time-stamping contracts should be introduced (e.g. by changing the role of notification agents).

⁸ However, the Group agreed that these notifications were still likely to be closer to Gate Closure than the current T-90 submissions – for example, it was suggested that the APX would be able to close at T-30. It agreed that the exact timing of each Party's notifications would depend on how short the ECVAAs validation process could be made, how much risk the Party (and its counter-party) was prepared to take, and the volume being traded.

The Group agreed that the key question would be whether the change would reduce imbalance risk, increase liquidity, and/or increase the accuracy of Parties' demand/generation forecasts.

The Group was uncertain whether any significant benefits in these areas would be achieved, and considered that allowing longer to trade might simply shift the timing of existing trading patterns/volumes.

Some members argued that:

- Extra trading time may not make it easier for small Parties to find counter-Parties to trade with (although it may help large company groups offset generation and demand between their different Parties);⁹
- There may be other factors which prevent small intermittent generators from trading in the Balancing Mechanism and which instead act as incentives for them to 'spill' – for example:
 - The unpredictability of their output;
 - Lack of 24-hour resource;
 - The 'protection' afforded by Renewable Obligation Certificates; and
 - The fact that they have no fuel costs and will always be paid System Sell Price for any spill;
- If the current incentives to balance are not right, allowing more trading time may not reduce existing levels of imbalance – it will depend on whether the Parties concerned believe that they can get a better price through trading than by taking no action and paying the resulting Imbalance Price;
- Ultimately, a small Party will never have the benefits of scale that a large company structure gives, and will always therefore have a higher imbalance risk unless it consolidates with other small players to share this risk (see Section 6).

The Group agreed that any benefits might therefore be marginal and difficult to prove definitively even with analysis. It agreed that the benefits would also need to be weighed against any costs to the Transmission Company and Logica (these would include both implementation costs and any ongoing costs/inefficiencies to the Transmission Company in balancing the system). The impacts on Party and/or notification agent systems would also need to be considered during the progression of any Modification Proposal.

The Group noted that the level of analysis needed would be fairly extensive. It also noted that predicting future trading behaviour was likely to fall outside ELEXON's immediate expertise as it would not use central BSC data. **The Group agreed that it would be appropriate to use external consultants to undertake the analysis.**

However, the Group noted that there would be a cost associated with this work, and agreed that it should therefore only be commissioned after a Modification Proposal had been raised. The Group agreed that it was not the role of the Issue process to undertake detailed analysis of impacts, costs or benefits.

The Group considered the suggestion of the Issue 30 report that moving Gate Closure could help reduce **Reverse Price** spread by increasing trading closer to real-time and making the price more cost-reflective. The Group noted that the Market Index Definition Statement takes into account a wide time-period of trades, and not just the last hour of trading. It reflects a varying expectation over time of individual and system imbalance risk and its cost. The Group therefore considered that changing the submission timing for physical and/or contract notifications might therefore not have a significant impact on the Reverse Price.

⁹ Other members considered that it might enable smaller Parties to make more trades through the APX.

However, the Group agreed that this area could be examined in more detail during the progression of any Modification Proposal.

6. Other ideas/suggestions not developed further

The Group also discussed, but did not develop, the following other potential solutions:

- i) Allowing **ex-post trading** (i.e. allowing Parties to make trades after Gate Closure).

The Group considered that this might not provide the correct incentives on Parties to manage their trading/imbalance and could have implications for the Transmission Company.

- ii) Establishing some kind of **central 'imbalance exchange forum'** where Parties would submit volumes and prices before Gate Closure but the resulting imbalances would only be 'matched up' post-event.

The Group noted that this would be a significant change, and was unconvinced of the benefits.

- iii) **Enabling small Parties to consolidate** and pool/net their imbalance risk, and/or to transfer their volumes to another Party who would manage the risk on their behalf.

The Group noted that the BSC rules do not prevent the establishment of such 'consolidator' roles, and therefore noted that small Parties could take this option forward without a Modification Proposal. Members suggested that a consolidation approach might be an effective way for smaller players to share and manage risk.

Appendix 1 – Group membership

Member	Organisation	30/09/08	04/11/08	25/02/09
David Jones	ELEXON (Chair)	Y	N	N
Adam Lattimore	ELEXON (Chair)	N	Y	Y
Andrew Wright	ELEXON (Lead Analyst)	Y	Y	N
Kathryn Coffin	ELEXON (Lead Analyst)	N	N	Y
John Lucas	ELEXON (Technical Support)	Y	N	Y
Nigel Cornwall	Proposer's representative	Y	Y	N
Robert Smith	National Grid	Y	Y	N
Alex Kyriakopoulos	National Grid	Y	N	N
Neil Rowley	National Grid	N	N	Y
Ian Moss	APX Group	Y	Y	Y
Bill Reed	RWE	Y	N	Y
Alan Mcadam	RWE	N	Y	N
Andrew Russell	International Power	Y	N	N
Libby Glazebrook	International Power	N	Y	N
Emma Williams	International Power	N	N	Y
Chris Stewart	Centrica	Y	Y	N
Dave Wilkerson	Centrica	N	N	Y
Eric Graham	TMA Data Management	Y	N	N
Gary Henderson	SAIC	Y	N	Y
Martin McDonald	SAIC	Y	N	N
Martin Mate	British Energy	Y	N	Y
Janice Tanner	Thames Power	Y	N	N
Andy Colley	SSE	N	Y	N
Esther Sutton	E.ON	N	N	Y
Ben Woodside	Ofgem	Y	Y	Y