

Issue 61 'Changes to Gate Closure for Energy Contract Volume Notifications'



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About This Document

This document is the Issue 61 Group's Report to the Balancing Settlement Code (BSC) Panel. It provides details of the Issue Group's discussions and proposed solutions to the highlighted issue and contains details of the Workgroup's membership. ELEXON will table this report at the Panel's meeting on 10 March 2016.

Background

[Issue 61 'Changes to Gate Closure for Energy Contract Volume Notifications'](#) was raised to look at amending the time of Gate Closure for Energy Contract Volume Notifications (ECVNs), in order to increase the liquidity in the market and promoting competition. The deadline for all other notifications, such as Physical Notifications (PN) and Bid and Offer submissions, would not be affected and would remain at one hour before the start of the Settlement Period. The Proposer initially suggested a new submission deadline for ECVNs of 30 minutes after the end of the Settlement Period.

Conclusions

The proposed solution would be to introduce the concept of a 'Final ECVN Submission Time'. This time would be decoupled from the current Gate Closure time and would be set to 30 minutes after the end of the relevant Settlement Period. This would permit energy trading to continue until the indicative imbalance price had been set. Subsequent to this, any references to Gate Closure across Core Industry Documents may be required to be amended to refer to 'Final ECVN Submission Time' if relevant to ECVNs as opposed to physical dispatch of plant. The Issue Group concluded by majority that these changes should be progressed.

What is Gate Closure?

Gate Closure is the point of time prior to a Settlement Period by which all notifications relating to that Settlement Period must be submitted. The reason for having this deadline at Gate Closure, one hour before real-time delivery, is so that Generators can finalise their physical outputs and notify their expected output for that Settlement Period to National Grid, acting as the System Operator. The Parties will send this information via PNs for each Balancing Mechanism (BM) Unit¹, with the final expected operating level for the Settlement Period for each BM Unit needing to be submitted by Gate Closure.

The post-Gate Closure period is designed to allow the System Operator sufficient time to carry out its balancing function through the BM. The System Operator has its forecast of demand for the Settlement Period, which it compares against the physical data submitted by the Generators. This data is used to determine whether there is likely to be a surplus or deficit of electricity in the Settlement Period. The System Operator will then accept Bids and Offers to ensure that generation matches demand throughout the Settlement Period.

After Gate Closure, Parties are expected to adhere to the physical data submitted to the System Operator, in line with the Grid Code obligations. They should only deviate from this position at the instruction of the System Operator.

Volume contract notifications

Contract notifications are submitted by all Parties to the Energy Contract Volume Allocation Agent (ECVAA). ECVNs are used to notify the ECVAA of bilateral trades between two Parties, while Metered Volume Reallocation Notifications (MVRNs) notify that the output of a given BM Unit should be reallocated to another Party's Energy Account. At the moment of Gate Closure, all ECVN and MVRN submissions become final. This was reduced from 3.5 hours at NETA go-live to 1 hour in 2002, in order to permit bilateral contracting to continue as close to real time as possible.

What is the Issue?

The Proposer believed the explicit coupling of the time at which PNs and other parameters relating to the dispatch of plant are locked in and the time at which ECVNs and MVRNs are locked in is unnecessary, and stifles competition.

[P305 'Electricity Balancing Significant Code Review Developments'](#) introduced a single, marginal imbalance price with the potential to rise to very high values in the event of scarcity of supply and the potential to fall to low or negative values in the event of extreme oversupply. In light of this, the Proposer believes there is a need to be able to transfer risk between Parties, from willing buyers to willing sellers, at a fair market price. They believe that if trading could continue past the current definition of Gate Closure up until a point where an indicative imbalance price has been published, this would allow efficient and effective transfer of risk, promoting competition in the sale and purchase of electricity.

¹ BM Units are used as units of trade within the Balancing Mechanism. Each BM Unit accounts for a collection of plant and/or apparatus, and is considered the smallest grouping that can be independently controlled. As a result, most BM Units contain either a generating unit or a collection of consumption meters. Any energy produced or consumed by the contents of a BM Unit is accredited to that BM Unit.

The P305 reforms will, in the Proposer's view, increase the need to accurately predict the Net Imbalance Volume (NIV) and the marginal actions taken by the System Operator. The uncertainties associated with early hedging will likely result in wider spreads between Bids and Offers and lower liquidity. As delivery approaches, greater certainty can be gained over the likely imbalance price. This should result in a concentration of liquidity in the run up to market closure. A later final time for ECVN submission would improve this liquidity.

Furthermore, the single imbalance price allows Parties to simulate trading post-Gate Closure via another route. A financial deal could be struck between two Parties where the difference between the strike price and the imbalance price is passed between the 'buyer' and the 'seller'. However, these deals would potentially be subject to more onerous regulation as a financial product, and more onerous BSC credit requirements due to increases in imbalance cash flows.

[Issue 35 'Timing of Gate Closure and Related Matters'](#), raised in 2008, touched upon this area. The Issue 35 Group was, however, primarily focussed on modifying the timing of Gate Closure for PNs as well as ECVNs and MVRNs. While the Issue 35 Group expressed concern that ex-post trading might not provide the correct incentives on Parties to manage their trading/imbalance, the Proposer notes that the subsequent implementation of P305 raises this possibility without a requirement to submit the relevant ECVNs.

What solution options were considered?

The Issue Group noted that the Proposer had put forward the option of an ECVN deadline of 30 minutes after the Settlement Period ended, but that they were open to further discussions and alternative options.

A Group member suggested that the Issue Group should explore other solutions. He raised four possible scenarios:

- Notify the volume at the same time as PNs, so leaving the situation as it is now;
- Move the deadline for ECVNs to the start of the Settlement Period;
- Move the deadline for ECVNs to 15 or 30 minutes after the end of the Settlement Period; and
- Allow ECVNs to be submitted later still.

One member also considered whether the deadline for the actual trade between two participants should be left as it is now - at Gate Closure – but with a window of time of perhaps 15 to 20 minutes then be allowed to submit the corresponding ECVNs. This would likely require some form of timestamp on the trade itself. However, the trade itself is made bilaterally between Parties, so it was unclear how this could be monitored or enforced. Also, the ECVN submission deadline does not contain the time of the trade, only the time the ECVN was submitted. Therefore, the Group did not progress this option further.

Would this impact National Grid's ability to balance the system?

The Issue Group noted that currently National Grid needs the existing 60-90 minutes following Gate Closure to balance the system. If the existing Gate Closure is left in place for Grid Code notifications (such as PNs or Bids and Offers) and only ECVNs were allowed to be submitted later, this should not cause any issues for National Grid in balancing the system.

The Issue Group flagged that National Grid does not use ECVNs in balancing the system, but uses FPNs to assess the base position and takes Bids and Offers to manage imbalance. National Grid's processes are based on FPN and Maximum Export Limit (MEL) information rather than contract notifications. The concern would be more on the impact of Issue 61 on the FPN accuracy and adherence. This issue has been already discussed in P305 when it considered the need to monitor FPN adherence following the move to a single imbalance price.

Furthermore, the Issue Group asked for confirmation that Issue 61 will not impact the cost of the energy and system actions required on both the supply and demand side. National Grid confirmed that this would not.

In addition, as an active participant in the wholesale market, some of the general benefits quoted may also apply to National Grid. However, as National Grid's trading activities are purely for the purposes of balancing the system and its imbalance exposure is treated differently to other BSC Parties, these benefits are likely to be negligible.

One member considered that the Final PNs (FPNs) submitted by Parties often provides a good proxy to the NIV for that Settlement Period, as the two values have a good

correlation. They were concerned that if participants were able to continue submitting ECVNs after Gate Closure, this could affect the NIV and reduce this correlation. They believed that contracts should all be set at Gate Closure and imbalance positions measured off of this position. The difference can then be resolved through Bids and Offers accepted by National Grid.

The Issue Group noted that a large volume of embedded generation is expected to come online. Such plant is not always required to be registered as a specific BM Unit and participate in the BM, but instead can elect to be aggregated within a Supplier BM Unit. This would mean there will be more generation without the obligation to submit FPNs. Issue 61 will not be able to solve this problem but the Group members believed this issue needed to be flagged for wider consideration.

How could this change affect the credit calculations and Parties' Credit Cover?

The Issue Group asked when it is appropriate to begin including a Settlement Period in the credit calculation and Parties' Credit Cover. This currently happens at Gate Closure for each Settlement Period and is based on the Credit Assessment Price (CAP). However, this could happen late enough to allow the indicative imbalance prices published on the Balancing Mechanism Reporting Service (BMRS) to be used instead. The Group believed that moving the ECVN submission deadline would also require the start of the Credit Cover calculation to be moved up to this point. However, this point should not be too late after the Settlement Period, to ensure that Parties lodge enough collateral. The Issue Group agreed that the calculations should start at either the ECVN submission deadline or at 30 minutes after the end of the Settlement Period, whichever is earlier.

The Issue Group believed Issue 61 will allow Parties to mitigate their imbalance position up to real time, which positively affects their Credit Cover requirements. The use of the indicative imbalance prices in the calculation should also give a better view of Parties' exposure risk.

What impact may there be on different types of participant?

A large part of the discussion has been focused on understanding the costs and benefits this change would have for Parties. The Issue Group noted there should be a method to quantify the benefits of this change, for instance by a cost-benefits analysis or by developing a model. However, the Proposer did not believe it will be possible to perform a quantitative analysis but just qualitative because it might be impossible to collect all the necessary and accurate data. Nevertheless, the Issue Group believed this should be explored if a subsequent Modification was raised.

The Issue Group considered that if trading was to continue after the current Gate Closure, more participants might be willing to sell any surplus electricity and carrying on trading closer to real time. This could allow participants to reduce their exposure to the imbalance price by trading any surplus energy that would otherwise have been spilt. In particular, it was considered that smaller participants may prefer greater certainty in prices, and may prefer the certainty of a traded price to taking a risk on the imbalance price. Allowing trading closer to real time would also benefit Parties who were less able to forecast their positions, enabling them to react to more accurate information on their position. It was also considered whether smaller players may benefit from this, but members felt that such

benefits may only be realised once Half Hourly (HH) Settlement was in place and real-time Meter reads could be obtained.

In addition, the obligation to submit and adhere to an FPN is limited to BM Units that submit these. There may be a number of other Parties (e.g. smaller generators or demand side participants) who operate within a Supplier portfolio and who are able to change their output in the period between Gate Closure and real time, which might advantage small Parties. However, this is the case irrespective of the proposed change under Issue 61 and, as these Parties do not currently have an obligation to submit FPNs in any case, there is effectively nothing for them to deviate from.

The Issue Group felt that this change would be neutral across different types of parties, but with a caveat regarding Parties with large embedded generation portfolios within their Supplier BM Units. These are largely invisible to National Grid as they are not required to submit FPNs, but the Issue Group didn't feel it could predict how such Parties would respond to the change.

How may the price changing after the event impact this change?

The Issue Members noted that if the ECVNs submission deadline was moved, new information may become available which could be useful for the next Settlement Period. However, it is difficult to define the impact on imbalance price.

The Issue Group flagged that this impact will depend on the result of [P333 'Inclusion of DSBR volumes into the cashout price in time for publication after the end of the Settlement Period'](#). Demand Side Balancing Reserve (DSBR) is a new service designed to support National Grid in balancing the system in the unlikely event that there is insufficient capacity in the market to meet demand. However, it is possible that information relating to DSBR is not received in time to be included in the indicative BMRS prices, meaning the prices could change between then and the Interim Information (II) Settlement Run. Some members felt that in order to mitigate the risk of incurring a high imbalance price, Parties might want to trade at a higher price than the indicative price.

The Issue Group discussed National Grid's DSBR instructions to Parties, which are sent two hours before the Settlement Period. This information does not include the prices themselves, but the notification that a DSBR action was required might imply that the system was tight and so Parties may execute trades on this assumption.

The Issue Group noted the market in Germany, where Parties continue to trade after their equivalent of Gate Closure. Parties agree a fixed price in their contracts ahead of real time, but the volume traded is not known until afterwards. However, the market in Germany is not run on a 24/7 basis and, consequently, this practice might not be relevant to Great Britain.

How may this change impact on Settlement?

The Issue Group believed that Issue 61 should not affect the Balancing Services Use of System (BSUoS) or RCRC charges. BSUoS is based on National Grid's balancing actions, and these are based on FPNs and not on ECVNs. As a consequence, there would be no change if the ECVN submission deadline was postponed.

RCRC is distributed based on Parties actual metered volumes, adjusted for any Bids or Offers accepted; again, it is not affected by ECVNs. The Issue Group considered whether

Issue 61 would reduce the amount of Residual Cashflow Reallocation Cashflow (RCRC). It agreed there will not be any changes to the total RCRC pot under the single imbalance price arrangements, as the net position will be unchanged. However, the individual allocations for any Parties that traded would be affected on an 'equal and opposite' basis.

How may this impact liquidity in the market?

This discussion was largely dominated by two opposite views: some members believed there would be an increase in liquidity through postponing ECVNs deadline submission while others believed there would be no impact.

The Proposer noted that, through the proposed deadline extension, there is a chance for Parties to obtain more information on their position (e.g. more accurate forecasts), and this can help to reduce their balancing exposure. The Issue Group discussed whether HH metering could provide benefit further down the line if Parties were able to obtain real-time Meter reads. This could allow Parties to monitor their positions in real time and better enable them to act accordingly. In this way, the proposed change might encourage innovation and improve liquidity.

Other members expressed doubts on the effects Issue 61 would actually have, especially on the actual increase in liquidity and on how much this increase might be. Members felt it was more likely that the liquidity would simply move forward closer (or into) real time in response to the later deadline.

A suggested method to measure the potential increase in liquidity was to study how the volume has changed after Gate Closure has been moved from three-and-a-half hours to one hour ahead of real time in 2002. Some similar changes have also been made in other countries and these could be examined to produce some quantitative evidence. However, the experience of other countries might not apply in Great Britain due to different conditions and contexts, so members cautioned how relevant such analysis might be to Issue 61.

Could there be any unintended consequences when the system is tight?

The Issue Group noted that Supplemental Balancing Reserve (SBR) and DSBR instruction or any big price changes might not be captured in the indicative price published on the BMRS. However, this wouldn't impact on Issue 61. Members were unable to identify any other potential impacts, and so concluded that this should not be an issue.

Will Issue 61 impact other industry Codes?

The Issue Group discussed whether Issue 61 would have any impacts on the [Connection and Use of System Code \(CUSC\)](#) or on any other Codes or agreements. It noted that this will be known once a firm solution has been agreed, but any agreements that make reference to the submission of ECVNs may need to be amended to reference the revised submission deadline.

The Issue Group debated whether the proposals could allow for more Contracts for Difference (CfD) style contracts between participants. This would allow participants to put in place a CfD between them using the imbalance price as a reference price. Two Parties could elect to enter into such a contract bilaterally, and no changes to the BSC would be

required to facilitate this. The Issue Group considered that this would be worth exploring separately, but it was agreed that it was not a part of Issue 61. They felt the CfD-type route needs to be further explored to understand the implications which are still unclear.

Are these changes compatible with the draft European Network codes?

[The Agency for the Co-operation of Energy Regulators \(ACER\) recommendation](#) on the Network Code on Energy Balancing of July 2015 states that 'The intraday market and balancing market should not take place at the same time in order to avoid a reduction of liquidity in the intraday market'. The Issue Group discussed whether the Issue 61 proposal might be precluded by this recommendation. However, the purpose of extending trading beyond the current transition into the balancing market is to encourage liquidity in the intraday market. The risks from not proceeding with this line of enquiry are that a potential source of within-day liquidity may remain untapped, reducing the ability of Parties to manage their exposure to imbalance; or that liquidity may be shifted from open and transparent power exchanges to bilateral CfDs. The Issue Group asked ELEXON for a legal view on this recommendation and on how the forthcoming [Capacity Allocation and Congestion Management \(CACM\)](#) arrangements might also interact with Issue 61. ELEXON concluded that European Network code changes should not have any impact on Issue 61 as the changes were still being drafted.

The Issue Group considered the Cross Border IntraDay (XBID) Project, associated with CACM. National Grid is currently exploring the impacts of this on its existing operations and also the interactions with future changes as a result of the Balancing Code. However, XBID is expected to require some changes to when ECVNs can be submitted. Under the current proposals, XBID trading would cease one hour ahead of real time. There would then be a five minute window to validate all the trades submitted through XBID, then a 15 minute window to submit the relevant notifications. This would imply that the ECVN submission deadline would need to be at least 20 minutes later than currently to facilitate this. National Grid's initial view was that the proposed change under Issue 61 may align well with the XBID changes as it would remove a problem it would otherwise have encountered, in particular that Parties would struggle to take full advantage of the increased trading window as the time available to them to notify their trades would be compressed.

The Group also noted the discussions on the Trans-European Replacement Reserves Exchange (TERRE) Project under [Issue 60 'Interfaces between the European Balancing Project TERRE and the current GB market arrangements'](#). National Grid flagged potential interactions between Issue 61 and Issue 60 in relation to Gate Closure and associated timings available for Parties to deliver and fulfil their tasks. Under the TERRE arrangements, the time available from when XBID results are published to carry out all of the TERRE activities is constrained. For instance, Parties submit capacity into a central auction, the results of which would not be known until 30 minutes prior to the Settlement Period beginning so a lot of tasks must be completed prior to this time. However, Issue 60 is still in the development phase, and so is not at a stage where Issue 61 can reasonably consider it. It is expected that the Issue 60 solution would be more developed by the time any Modification arising from Issue 61 was progressed, and so it would be more appropriate to leave the impacts arising from Project TERRE for the Modification Workgroup to assess. However, the Issue Group requested ELEXON circulate information between the two Issue Groups to ensure each was aware of the other's developments.

Overall, the Issue Group agreed that, because the European Network codes are still in draft form, it cannot clearly understand the compatibility between them and this change.

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Issue Group's conclusions

By majority, the Group concluded that the ECVN submission deadline should be extended from its current time of one hour before the Settlement Period begins. However, they did not agree on by how much the ECVNs submission deadline should be extended.

Some Group Members, including the Proposer, believed that the ECVNs submission deadline should be set to 30 minutes after the end of the Settlement Period, in line with the original suggestion. These members did not believe that the deadline needed to be any longer than around the time the indicative imbalance prices became available, and that allowing longer could have adverse impacts on other areas, for example on the Credit Cover calculations.

A roughly equal number of other Group Members believed that the deadline should be delayed as long as possible, in order to allow more information to be available to Parties. They believed that it would be beneficial to allow participants to continue trading for longer still.

Two Group Members believed that the ECVNs submission deadline should be left unchanged from now. They believed this is not the right time to raise the proposed change, due to the development of the European Network codes and the impact this might have on Gate Closure more generally. They flagged that this process should be fully understood before making any changes.

The Group agreed there would not be any need to amend the deadline for submitting MVRNs. Members noted that MVRNs tend to be submitted once on an 'evergreen' basis, and only updated should the relevant BM Unit change ownership. As such, it is not necessary to extend the deadline for these.

Appendix 1: Issue Group Membership

Issue Group membership and attendance

Issue 61 Group Membership and Attendance			
Name	Organisation	04/12/15	05/02/16
David Kemp	ELEXON (<i>Chair</i>)	✓	✓
Giulia Barranu	ELEXON (<i>Lead Analyst</i>)	✓	✓
Matt McKeon	ELEXON (<i>Design Authority</i>)	✓	✓
Richard Devenport	EDF (<i>Proposer</i>)	✓	✓
Alex Haffner	National Grid	✓	✓
Helen Stack	Centrica	✓	✗
Andy Colley	SSE	✓	✗
Tom Edwards	Cornwall Energy	✓	✗
Bill Reed	RWE	✓	✓
Gary Henderson	Everis	✓	☎
Olaf Islei	APX	✓	✗
Howard Wright	APX	✗	✓
Jeremy Guard	First Utility	✓	☎
Lin Gao	E.ON UK	✓	✗
Guy Phillips	E.ON UK	✗	✓
Mauricio Cepeda	Gazprom	✓	✓
Kenneth Skou	NEAS Energy	✓	✓
Colin Prestwich	SmartestEnergy	✓	☎
Andy Paton	National Grid Interconnectors	✗	✓
Espen Døvre	Nord Pool	✗	✓

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Acronyms

Acronyms used in this document are listed in the table below.

Acronyms	
Acronym	Definition
ACER	Agency for the Co-operation of Energy Regulators
BM	Balancing Mechanism
BMRS	Balancing Mechanism Reporting System
BSC	Balancing Settlement Code
BSUoS	Balancing Services Use of System
CACM	Capacity Allocation and Congestion Management
CAP	Credit Assessment Price
CfDs	Contracts for Differences
CUSC	Connection and Use of System Code
DSBR	Demand Side Balancing Reserve
ECVAA	Energy Contract Volume Allocation Agent
ECVNs	Energy Contract Volume Notifications
FPN	Final Physical Notification
HH	Half Hourly
II	Interim Information
MEL	Maximum Export Limit
MVRNs	Metered Volume Reallocation Notifications
NIV	Net Imbalance Volume
PN	Physical notification
RCRC	Residual Cashflow Reallocation Cashflow
TERRE	Project Trans-European Replacement Reserves Exchange
XBID	Cross Border IntraDay

External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

External Links		
Page(s)	Description	URL
2	Issue 61 page on the ELEXON website	https://www.elexon.co.uk/smg-issue/issue-61/
3	P305 page on the ELEXON website	https://www.elexon.co.uk/mod-proposal/p305/
4	Issue 35 page on the ELEXON website	https://www.elexon.co.uk/smg-issue/issue-35-timing-of-gate-closure-and-related-matters/
7	P333 page on the ELEXON website	https://www.elexon.co.uk/mod-proposal/p333/
8	CUSC page on the National Grid website	http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Connection-and-Use-of-System-Code/
9	ACER recommendations No 03/2015 on the ACER website	http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Pages/Recommendations.aspx
9	CACM page on the ACER website	http://www.acer.europa.eu/electricity/fg_and_network_codes/pages/capacity-allocation-and-congestion-management.aspx
9	Issue 60 page on the ELEXON website	https://www.elexon.co.uk/smg-issue/issue-60/