

Stage 02: Workgroup Consultation

Grid Code

GC0099:

Modification Title: Establishing a common approach to interconnector scheduling consistent with the single intraday market coupling processes set out within Regulation (EU) 2015/1222 (CACM).

Purpose of Modification: This Modification seeks to introduce the interconnector scheduled transfer process to the Grid Code in order to establish common timings which are compatible with both the EU single intraday market coupling processes, and GB and EU balancing processes. CACM aims to promote effective competition in the generation, trading and supply of electricity and foresees the development of more liquid intraday markets which give parties the ability to balance their positions closer to real time and should help to integrate renewable energy sources into the Union electricity market.

Published on: 09 October 2017
Length of Consultation: 15 working days
Responses by: 30 October 2017



High Impact: Transmission system owners and operators most notably interconnector owners. This Modification is linked to TSO compliance with EU Regulation 2015/1222 (CACM).



Medium Impact: None



Low Impact: None

What stage is this document at?

01	Modification Proposal
02	Workgroup Consultation
03	Code Admin Consultation
04	Report to the Authority

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Timetable

The following timetable is subject to Panel approval:

Workgroup meeting 1	07 June 2017
Workgroup meeting 2	25 July 2017
Workgroup Consultation (15 working days)	09 October 2017
Workgroup meeting 3	TBC
Workgroup Report presented to Panel	7 November 2017
Code Admin Consultation issued to industry (15 working days)	15 November 2017
Draft Final Modification Report presented to Panel	9 January 2018
Panel Determination Vote	17 January 2018
Final Modification Report published	19 January 2018
Authority Decision	23 February 2018
Implementation	09 March 2018



Any Questions?

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About this document

The purpose of this document is to consult on the GC0099 Modification with Grid Code Materially Affected Parties and other interested industry members. Representations received in response to this Consultation document will be included in the Code Administrator's draft Grid Code Modification Report that will be furnished to the Grid Code Review Panel for their recommendation to the Authority. Parties are requested to respond by **17:00** on **30 October 2017** to grid.code@nationalgrid.com using the joint Grid Code/BSC Workgroup Consultation Response Pro-forma which can be found via the following link:

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0099/>

Document Control

Version	Date	Author	Change Reference
0.1	30/08/2017	Workgroup	Draft Workgroup Consultation
0.2	09/10/2017	Workgroup	Workgroup Consultation

1 Summary

This Modification was proposed by National Grid Electricity Transmission and originally submitted to the Grid Code Review Panel for their consideration on 30 May 2017. The Panel decided to send the Proposal to Workgroup and then later approved a request for a Workgroup Consultation on 21 June 2017. The Panel stated that it would be beneficial for the Workgroup Consultation to specify that the Modification is for minimum necessary change only.

Background

An Interconnector Scheduled Transfer (IST) gives notice to the Interconnector Administrator (IA) of a scheduled transfer in MW values (at the Transmission System Boundary) at the start and end (spot times) of that Settlement Period as well as various other spot times within the Settlement Period for the Interconnector for which they are the IA i.e. each interconnector will have its own IST. A Physical Notification (PN) is a notification from a generator or a supplier of the amount of electricity that it intends to produce or consume in a given Settlement Period. PNs are submitted to NGET and can be updated at any point prior to Gate Closure. The prevailing PN at Gate Closure is the Final PN (FPN). It can be broken down for various points in the half-hour called a spot time. The values for the spot time show the actual amount that will be taken at that spot time. This allows NGET to be able to see how volumes will fluctuate within the Settlement Period.

What

This Modification seeks to establish a common approach within the Grid Code to scheduling across all GB interconnectors. Currently the IST process is not clearly set out within the GB Grid Code; however related processes such as PN submissions are included. This often causes confusion for interconnectors. The interconnector scheduling process is established within the relevant Interconnection Agreements, Operating protocols, and details are given within the BSC methodology statements for Determination of System-to-System Flow. As a result the arrangements are bespoke for each interconnector.

Why

The implementation of single intraday coupling as described in CACM will move the intraday cross zonal gate closure to at most one hour before the start of the relevant market time unit from the current 2-8 hours. This means that existing interconnector scheduling processes will need to be updated. Updating these arrangements requires careful consideration as the timings could impact the existing GB balancing arrangements, and/or increase the complexity of the implementation of the EU network guideline on balancing and have the potential to commercially affect interconnector parties.

How

This Modification proposes to include the BSC definition of the Interconnector Scheduled Transfer within the Grid Code, along with common timings to be applied on all GB interconnectors. This approach has been discussed through consultation with GB interconnector owners.

2 Panel Recommendation

The Proposer presented this Modification to the Panel on 30 May 2017 with a suggestion that this Modification should be considered for Self-Governance procedures. However, the Grid Code Review Panel concluded that this Modification did not meet the Self-Governance criteria and required an Authority decision.

The Panel also recommended that the following items should be within the Workgroup's Terms of Reference:

- Clarify the cross code implications, in particular the BSC
- Consultation with interconnectors to be shared and discussed
- Clarify the implication on GB and EU balancing processes
- Clarify the implementation timescale
- PNs impact outside interconnectors

The Workgroup reported back to the Panel on 21 June 2017 seeking Panel approval for a Workgroup Consultation to be included within the Modification timetable in order to engage with Industry whether there would be any wider impacts on PN's.

The Panel approved the request whilst stating that it would be beneficial for the Workgroup Consultation to specify that the Modification is for minimum necessary change.

3 Workgroup Discussions

First Workgroup meeting

The first Workgroup Meeting was held on 7 June 2017. The Workgroup met to discuss the questions raised by the Grid Code Review Panel in relation to the Modification Proposal as set out below.

Cross code impact

Following the Panel recommendation to consider cross code impacts the Workgroup determined that there was scope for a joint working arrangement with the BSC Modification to be raised and agreed the best way forward would be to co-ordinate joint Workgroup meetings and Consultations.

Consultation with interconnectors to be shared and discussed

The Workgroup addressed the question about whether the discussion with interconnectors was sufficiently adequate. As a result, the Workgroup Members took an action to write out to interconnectors individually and engage participation for a view on this Modification. In addition to this, the Workgroup put forward a recommendation to the Grid Code Review Panel that a Workgroup Consultation be issued in order to verify with Industry whether the assumption that changes to physical notifications (PN's) would not be required. The Grid Code Review Panel voted in favour and approved the recommendation.

Clarify the implication on GB and EU balancing process

The Workgroup discussed the impact of this Modification with the process set out by Project TERRE. The Interconnector parties highlighted that timescales would be critical to retrieving information and the current timescale would prove difficult.

Can we have a fallback process? If day ahead doesn't work there is an alternative timing/deadline?

The Workgroup supported the suggestion of a fall back process and specified that acknowledgement of gate closure would need to be made in both the Grid Code and the BSC. The Workgroup agreed to propose and approve wording for what the process should entail.

Implementation timescale

The implementation approach put forward by the Workgroup was to implement the obligations as a step change for interconnector parties to abide by. It was agreed that this approach would be set out within the legal text.

Second Workgroup meeting

The second Workgroup Meeting was held as a joint Workgroup for Grid Code Modification GC0099 ('Establishing a common approach to interconnector scheduling consistent with the single intraday market coupling processes set out within Regulation (EU) 2015/1222 (CACM)') and BSC Modification P356 ('Aligning the BSC with Grid Code Modification GC0099') at ELEXON's offices on Tuesday 25 July 2017.

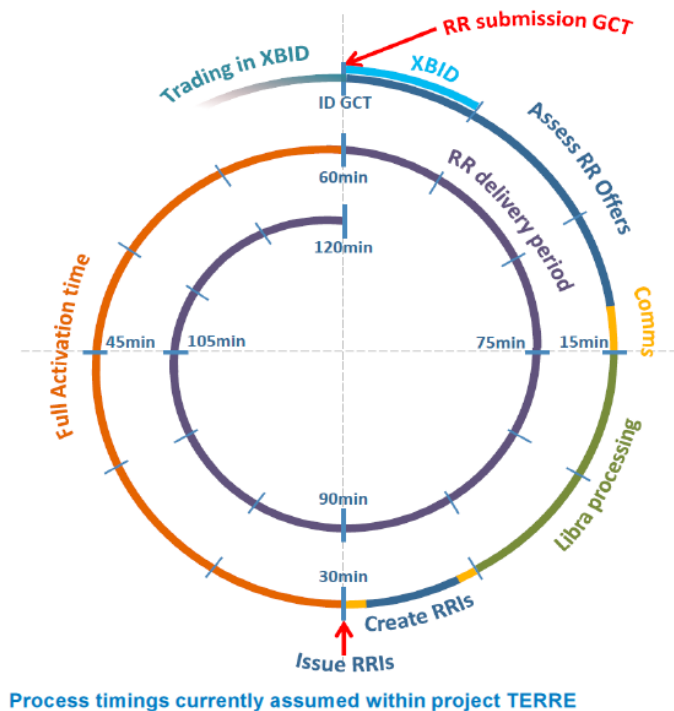


Figure 1

Gate closure times and follow on actions

The spiral diagram in figure 1 was talked through; the timings for which reflect the current proposal for the ongoing Modification Project TERRE. The timings being proposed have a little bit of flexibility (e.g. 4 minutes instead of 5) but the receipt of information by the central platform (15 mins after gate closure), activation time (30 minutes) and the delivery time (60 minutes) are set.

The European gate closure process has not yet been defined but work is being carried out to do so. An updated Intraday Cross Zonal Gate Time (IDCZGT) proposal in accordance with CACM Article 35 is due to be submitted to all National Regulatory Authorities in August 2018. The regulatory decision will be due 2 months later in October 2018. GB is looking for one hour gate closure with the TSOs that it shares an interconnector with. Anything less than a one hour gate closure could have potential impacts on the GB processes.

It was noted that 5 minutes after gate closure is a key time for submitting ISTs (Interconnector Scheduled Transfers) on XBID (Cross Border Intra Day). However, if PN forecasts are submitted earlier, then this could be stretched to 10 minutes if the data is just being updated, rather than new data being submitted.

Impact of P356

ELEXON noted that an initial conclusion is that P356 specifically does not impact most Parties, but will impact the interconnectors and the System Operator. At a high level this Modification is looking at how ISTs are updated and provided to the system Operator, P356 focuses on BSC Section R to include an additional circumstance for post-Gate Closure adjustments to ISTs and ETs. This will allow ISTs and therefore ETs and BMU Metered Volumes to be adjusted to reflect XBID trading.

Impact of different gate closure times for borders between GB and other interconnected countries?

The impact of having different gate closure times for different borders was discussed; the EU regulation CACM allows this. NGET shared the latest information from the TSO drafting group which have agreed to maintain a 1 hour gate closure time for all GB borders. Parties had no further comment and were comfortable with the existing Governance process in place for a 1 hour intra-day gate closure in accordance with CACM.

Amending Physical Notifications (PN) post gate closure

The FPN is a statement of a Party's contracted position at Gate closure but it is only intended to be an estimate and not definitive. Imbalance is the difference between contracted position and metered volumes. In theory the FPN from the IU should be equal to the most up to date IST and should also equal the ECVN at Gate Closure.

The Interconnector Administrators aim to deliver their FPN one minute prior to Gate Closure albeit this is not a requirement and so there may be a disparity as the IST can be amended after Gate Closure. Nonetheless both the Grid Code and BSC will agree the same timings and take into consideration that this may not be achievable in the future due to the XBID timelines. The final IST for each Settlement Period is the prevailing IST at the end of that Settlement Period.

There is a risk that if a trade is accepted after the FPN is submitted to NGET, then the interconnector Parties credit rating could be affected if there is a substantial difference, particularly if that trade had the effect of reversing the interconnector direction of flow, This may have the potential to affect the ability of interconnectors to trade in future Periods..

Post meeting note: ELEXON has investigated the credit calculation process and has looked at analysis undertaken as part of BSC Modification P342. From November 2017 it will be possible to submit the ECVN 60 minutes after Gate closure i.e. the start of the Settlement Period. In theory, this means that the final ECVN at Gate Closure +60 minutes will reflect the Final IST. The P342 workgroup concluded that there would be sufficient 'liquidity' in the market post gate closure to allow Parties to 'trade out' their imbalance. The P342 workgroup also concluded that there was no need to amend Credit calculations as part of their work and that it could, if need arose, be raised at a later stage.

The potential risk for the Interconnector operator was accepted as being valid; however, it would be useful to see some quantitative figures and an assessment of the risk of this occurring based on system process protocols and algorithms.

The merits of allowing FPNs to be updated post gate closure were discussed and whilst it was felt that it is good practice for 'final' to mean 'final' and not be updated post-Gate Closure; there is a reasonable argument to potentially consider changing the current requirements. It was agreed that this would form part of the consultation.

It was agreed that it would be useful to model the impact on the GB market as a whole if FPNs and ISTs are different. The basis for this is that if there is a

discrepancy for a relatively small amount of flow (relative to the whole GB market), will this impact on other Parties, traders and the like.

Cross code working

Each code (BSC and GC) will follow its own governance processes so far as practicable, including having their own Chair, consultations and Panel approval processes. Where joint meeting groups occur, the Code hosting the meeting will be lead Chair. Consultations will be issued at the same time but for each Code. The questions will be the same as will the messaging. Respondents will be able to reply to either BSC or GC, who will then share with each other the responses for consideration (unless unable to due to confidentiality). A slide pack will be shared with WG members explaining each code's governance applicable to these changes and where the cross overs lie.

Potential Alternate Solution

The possibility of raising an alternate solution was discussed. The alternate would be connected with allowing PNs to be updated post-gate closure, improving visibility of the SO to changes, clarity on credit calculations and final imbalance calculations. Given the complexity of implementing this, and potential system changes, it was agreed to consult on whether or not there is an appetite to allow PNs to be updated post-Gate Closure. Without feedback from the consultation, there is no appetite in the Workgroup meeting to raise this alternative.

The system changes for BSC systems could take some time to develop and implement following Authority approval. Given that changes need to be in place before the first participation in XBID (2018 Q3), it was agreed to assess consultation responses ahead of deciding whether or not to raise an alternative solution.

For an alternative proposal to be considered within the Grid Code process, a party (parties need to meet the criteria set within the Grid Code) can either respond to the Workgroup Consultation with a 'Workgroup Consultation Alternative Request' or Workgroup Members can raise an alternative proposal within the Workgroup process.

The Proposer of either a Workgroup alternative proposal or consultation alternative request will be required to have completed the Alternative Grid Code Modification documentation. Workgroup members should be mindful of efficiency and propose the fewest number of Alternative's as possible.

For Workgroup alternative proposals or consultation alternative requests to become formal alternative Grid Code Modifications they are required to be supported as better facilitating the Grid Code Objectives than the Grid Code Modification Proposal or the current version of the Grid Code by a majority of the Workgroup members or by the independent Workgroup Chair. Alternative Modification Proposals can only be raised during the Workgroup phase of the Modification development.

4 Solution

It is proposed that the BSC definition of the “Interconnector Scheduled Transfer” (IST) is included within the Grid Code, and new requirements are introduced on interconnector owners to send copies of the IST to NGET by specified deadlines. This will be achieved through three changes to the Grid Code;

1. Introduction of the Interconnector Scheduled Transfer, intraday cross-zonal gate closure time, and intraday cross-zonal gate opening time definitions within the glossary & definitions section.
2. It is proposed to outline the Pre Gate Closure IST process within section BC1 of the Grid Code. It is proposed that the IST is sent to NGET following the day ahead market coupling processes, and that this IST is updated to represent the latest market position at least every hour up until the cross zonal intraday gate closure. A fall-back solution is also specified.
3. It is proposed to outline an aspect of the Post Gate Closure IST process within section BC2 of the Grid Code. Following Gate Closure and until 10 minutes past the Gate Closure the Interconnector Owner shall update the IST to reflect those intraday trades which may have been matched shortly before the intraday cross zonal gate closure.

Post meeting note: A Workgroup Member highlighted that the proposal in point 3 above is currently not possible and that further analysis as well as discussion with RTE is required for NGIC to be able to define a specific time for IST to be available. It has been identified that this is a valid point and will be discussed post consultation in the next Workgroup meeting.

For the avoidance of doubt, it is not proposed to allow any additional time for Interconnector Users or other Grid Code Parties to incorporate intraday trades into their Physical Notifications. As currently, any Physical Notifications received after Gate Closure will be rejected in accordance with section BC1.4.4, and BM Participants must follow the Physical Notifications in force at Gate Closure in accordance with section BC2.5.1.

5 Impacts and Other Considerations

Who

This impacts interconnector owners, interconnector users, Interconnector Administrator, Interconnector BM Units, NGET, BSC Section R and External System Operators.

As a minimum, changes will be required to BSC Section R to allow the Interconnector Scheduled Transfer to be amended after Gate Closure to reflect the results of the single intraday market coupling. Other changes may be desirable (e.g. to the timing of data submissions and calculations performed by the Interconnector Administrator), and this should be considered under BSC governance (in parallel with the progression of this Grid Code Modification).

Which

The IST processes in BSC section 7, including the BSC Methodology Statements for Determination of System-to-System Flow, and corresponding processes described in the relevant Interconnection Agreements.

Systems impacted

NGET BM system

NGET EBS system

NGIC, RTE, Nemo Link & BritNed Regional Nomination Platform (RNP) which will be used for the first implementation of XBID within GB

Other Interconnector Owner systems

Does this Modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

No

Consumer Impacts

This change should facilitate the implementation of both the EU single intraday market coupling processes and EU balancing processes. These changes are expected to deliver significant benefit to the end consumer by facilitating a more liquid pan-EU intraday and balancing market.

6 Workgroup Consultation Questions

The GC0099 Workgroup is seeking the views of Grid Code Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions highlighted in the report and summarised below:

Standard Workgroup Consultation questions:

1. Do you believe that the GC0099 original proposal better facilitates the Applicable Grid Code Objectives?
2. Do you support the proposed implementation approach?
3. Do you have any other comments?

Specific GC0099 Workgroup Consultations:

1. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?
2. Would you support an alternate solution to allow Physical Notifications to be updated post-gate closure?

Please send your response using the Response Pro-forma which can be found on the National Grid website via the following link:

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0099/>

In accordance with Governance Rules Section 8 of the Grid Code, Any Authorised Electricity Operator; the Citizens Advice or the Citizens Advice Scotland, NGET or a Materially Affected Party may (subject to GR.20.17) raise a Workgroup Consultation Alternative Request. If you wish to raise such a request, please use the relevant form available via the link below:

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/Forms-and-guidance/>

Views are invited upon the proposals outlined in this report, which should be received by **17:00 on 30 October 2017**. Your formal responses must be emailed to: grid.code@nationalgrid.com

If you wish to submit a confidential response, please note that information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response marked "Private & Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Grid Code Review Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.

Please note an automatic confidentiality disclaimer generated by your IT System will not in itself, mean that your response is treated as if it had been marked "Private and Confidential".

7 Relevant Objectives

Impact of the Modification on the Relevant Objectives:

Relevant Objective	Identified impact
To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	Positive
To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity)	Positive
Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole	Positive
To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and	Positive
To promote efficiency in the implementation and administration of the Grid Code arrangements	Neutral

8 Implementation

Implementation should be in line with the earliest implementation of a continuous cross border intraday market on each GB interconnector. NGETs current understanding is that IFA and BritNed planned XBID go-live is by Q3 2018.

The implementation approach put forward by the Workgroup was to implement the obligations as a step change for interconnector parties to abide by. It was agreed that this approach would be set out within the legal text.

GLOSSARY & DEFINITIONS

(GD)

GD.1 In the Grid Code the following words and expressions shall, unless the subject matter or context otherwise requires or is inconsistent therewith, bear the following meanings:

...

Interconnector Owner	Has the meaning given to the term in the Connection and Use of System Code .
Interconnector Scheduled Transfer	Has the meaning set out in the BSC .
Interconnector User	Has the meaning set out in the BSC .

...

intraday cross-zonal gate closure time	Has the meaning set out in the Regulation (EU) 2015/1222 .
intraday cross-zonal gate opening time	Has the meaning set out in the Regulation (EU) 2015/1222 .

....
BC1.4.7 Special Provisions Relating To Interconnector Owners

- (a) Calculate the Interconnector Scheduled Transfer (IST)
- i) Interconnector Owners shall deliver an IST to NGET by 1230 each day which reflects the results of the single day-ahead coupling. In the event of a delay to the single day-ahead coupling the IST should be submitted within one hour of the deadline. If the delay results in a decoupling event triggering day-ahead fallback arrangements on a border then the relevant ISTs should be submitted either within one hour of the deadline without day-ahead coupling results or within two hours of the deadline if the IST incorporates day-ahead fallback results.
- ii) Updates to the IST shall be delivered to NGET at least every hour between the intraday cross-zonal gate opening time and the intraday cross-zonal gate closure time.

...
BC2.13 LIAISON WITH INTERCONNECTOR OWNERS

(a) Calculate the Interconnector Scheduled Transfer (IST)
 Interconnector Owners shall deliver an updated IST to NGET by 10 minutes after each intraday cross-zonal gate closure time. The updated IST shall fully reflect the results of the single intraday coupling.

Comment [TH1]: Please refer to the Post Meeting Note within section 5 of the Report.

...
Text Commentary

The intention is that Interconnector Owners submit to NGET an Interconnector Scheduled Transfer representing the anticipated active energy flow across the interconnector that is updated from day ahead through until 10 minutes after the cross zonal intraday gate closure so as to fully represent the market results; including long term allocations, single day ahead and single intraday coupling.

Annex 2 – Attendance Register

A – Attended
 X – Absent
 D – Dial-in

Name	Organisation	Role	07/06/2017	25/07/2017		
Chrissie Brown	National Grid	Chair	X	X		
John Martin	National Grid	Chair	O	X		
Taran Heir	National Grid	Technical Secretary	A	A		
Robert Selbie	National Grid (Proposer)	NG Representative	A	A		
Elliott Hall	ELEXON	Chair	X	A		
Chris Wood	ELEXON	Lead Analyst	X	A		
Michael Carrington	Eirgrid	Workgroup Member	A	X		
Alastair Frew	Scottish Power	Workgroup Member	A	X		
Christopher Smith	National Grid Ventures	Workgroup Member	X	X		
Jennifer McCartney	National Grid Ventures	Workgroup Member	O	X		
Caroline Kluyster	National Grid Interconnectors	Workgroup Member	A	A		
Peter Bolitho	Waterswye	Workgroup Member	A	A		
Nicholas Rubin	ELEXON	Workgroup Member	A	A		
John Gleadow	North Connect	Workgroup	A	X		

	KS	Member				
Nick Pittarello	National Grid Interconnectors	Workgroup Member	N/A	A		
Paul Youngman	DRAX Power	Workgroup Member	X	A		
Thomas Jones	Ofgem	Authority Representative	N/A	A		
Jakub Pilecky	Britned	Observer	N/A	A		
Alex Roberts	Eleclink	Observer	N/A	A		