

BSC Modification Proposal Form		At what stage is this document in the process?
<h1>P356</h1> <p>Mod Title: Aligning the BSC with 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)’.</p>		<div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid green; padding: 2px; margin-bottom: 2px;">01 Modification</div> <div style="border: 1px solid blue; padding: 2px; margin-bottom: 2px;">02 Workgroup Report</div> <div style="border: 1px solid purple; padding: 2px; margin-bottom: 2px;">03 Draft Modification Report</div> <div style="border: 1px solid orange; padding: 2px;">04 Final Modification Report</div> </div>
<p>Purpose of Modification: This Modification will align the BSC with Grid Code Modification GC0099, which seeks to introduce the interconnector scheduled transfer process to the Grid Code. This is in order to establish common, cross-code provisions which are compatible with both the EU single intraday market coupling processes, and GB and EU balancing processes.</p>		
	<p>The Proposer recommends that this Modification should:</p> <ul style="list-style-type: none"> not be a Self-Governance Modification Proposal; and be assessed by a (joint BSC and Grid Code) Workgroup and submitted into the Assessment Procedure. <p>This Modification will be presented by the Proposer to the BSC Panel on <i>13 July 2017</i>. The Panel will consider the Proposer’s recommendation and determine how best to progress the Modification.</p>	
	<p>High Impact: Transmission Company Interconnectors</p>	
	<p>Medium Impact: None</p>	
	<p>Low Impact: Suppliers Generators Non-physical traders</p>	

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Timetable		
The Proposer recommends the following timetable: <i>(amend as appropriate)</i>		
Initial consideration by Workgroup	W/B 24 July 2017	 giulia.barranu@elaxon.co.uk
Assessment Procedure Consultation	9 Oct 2017 – 27 Oct 2017	 020 7380 4330
Workgroup Report presented to Panel	14 December 2017	Proposer: Robert Selbie
Report Phase Consultation	15 December 2017 – 28 December 2017	 Robert.selbie@nationalgrid.com
Draft Modification Report presented to Panel	11 January 2018	 0118 936 3508
Final Modification Report submitted to Authority <i>[not Self-Governance]</i>	12 January 2018	Proposer's representative: Robert Selbie
Final Modification Report published <i>[Self-Governance]</i>	12 January 2018	 Robert.selbie@nationalgrid.com
		 0118 936 3508
		Other: N/A
		 N/A
		 [N/A]
		Other: N/A
		 N/A
		 N/A

1 Summary

What is the issue?

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 \(CACM\)'](#) has been raised to introduce an approach within the Grid Code to scheduling across all Great Britain (GB) interconnectors.

The implementation of single intraday coupling as described in the Capacity Allocation and Congestion Management Network Code (CACM), will set the intraday cross zonal gate closure to at most, one hour before the start of the relevant market time unit. The existing Interconnector Scheduled Transfer (IST) process is described in Section R of the BSC, and allows the IST to be changed up until Gate Closure (one hour before the start of each settlement period). After Gate Closure, changes to the IST are still permitted however only for a defined list of circumstances (see BSC section 7.1.3). The CACM timings mean that the IST which reflects the results of the single intraday coupling will not be known at Gate Closure. This means that existing interconnector scheduling processes will need to be updated to allow Interconnector Scheduled Transfers (ISTs) to be updated following the conclusion of cross-zonal capacity allocation in accordance with CACM. 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 European Union (EU) network guideline on balancing.

Modification GC0099 proposes to introduce the BSC definition of the Interconnector Scheduled Transfer (IST) within the Grid Code, along with common timings to be applied on all GB Interconnectors. It also proposes that Interconnector Owners shall deliver an updated IST to National Grid Electricity Transmission (NGET) by five minutes after each intraday cross-zonal gate closure time. The updated IST shall fully reflect the results of single intraday market coupling.

Consequently, this Grid Code change will, by itself, introduce an inconsistency between the Grid Code and the BSC (Section R7.1.3(b)), which currently only permits adjustments to the IST after gate closure for a defined list of events that does not include the results of single intraday market coupling.

What is the proposed solution?

This Modification proposes to modify the process described in BSC Section R 'Collection and Aggregation of Meter data from CVA Metering Systems' to include an additional circumstance for post-gate closure adjustments to ISTs. That is, such an adjustment should be allowed to ensure an IST fully reflects the results of the single intraday market coupling. Additionally, post gate closure timings will be made consistent with the timings proposed in GC0099.

2 Governance

Justification for proposed progression

The Proposer anticipates that this Modification will have a material effect on:

- a) the operation of the national electricity transmission system; and
- b) the management of the market (specifically the GB and EU balancing market).

The timings of the interconnector scheduling process will impact on the timings of the EU balancing market processes, which are currently being developed through projects such as Project TERRE. As such the effect is deemed material. As part of the EU balancing process, TSO will need to determine their requirement for each of the balancing products (RR and mFRR). NGET requires the IST in order to make this assessment. Therefore NGET cannot submit its requirement to central TSO balancing platforms until the IST has been received.

It is therefore proposed that this Modification should not be progressed as a Self-Governance Modification. This is consistent with the decision of the Grid Code Review Panel (GCRP) who concluded that Grid Code Modification GC0099 should not be progressed as a Self-Governance Modification.

Requested Next Steps

This Modification should be:

- assessed by a joint BSC and Grid Code Workgroup and submitted into the Assessment Procedure.

The Grid Code Review Panel has agreed that GC0099 should be sent to a working group. It is therefore suggested that GC0099 and this BSC Modification should progress through a combined cross-code workgroup.

The BSC Panel supports Cross-Code working and Consultation. At the first GC0099 workgroup meeting on 7th June 2017, it was highlighted by workgroup members that it may be more efficient if GC0099 and this Modification were to progress under a joint workgroup and consultation. ELEXON and National Grid have been liaising to agree an approach for joint working.

3 Why Change?

What is the issue?

This Proposal is one of a number of Proposals which seek to implement relevant provisions of a number of new EU Network Codes/Guidelines which have been introduced in order to enable progress towards a competitive and efficient internal market in electricity. Some EU Network Guidelines are still in development and these may in due course require a review of solutions developed for Codes that come into force beforehand.

This Modification relates to:

- *Regulation 2015/1222 – Capacity Allocation and Congestion Management (CACM) which entered into force on 14 August 2015*

The CACM guidelines aim to promote effective competition in the generation, trading and supply of electricity. In addition, CACM foresees the development of more liquid intraday markets, giving parties the

ability to balance their positions closer to real time, which should help to integrate renewable energy sources into the EU electricity market.

Article 2 of CACM states that ‘intraday cross-zonal gate closure time’ means the point in time where cross-zonal capacity allocation is no longer permitted for a given market time unit”. Article 59 of CACM requires that the intraday cross-zonal gate closure time “shall be at most one hour before the start of the relevant market time unit”.

In accordance with Article 59(1) of CACM, the all-TSO proposal on the intraday cross-zonal gate opening and intraday cross-zonal gate closure times was recently considered by all the EU national regulatory authorities. On 14 June 2017, the regulatory authorities determined that the intraday cross-zonal gate closure time shall be set on a bidding zone border by border basis and be set closer should be set closer than one hour to the start of the relevant market time unit where appropriate. This decision does not currently change the rationale for raising Grid Code Modification GC0099, and hence this BSC Modification. If at any point in the future the intraday cross-zonal gate closure time is set to be less than one hour on any interconnector with Britain, GC0099 and this BSC Modification will address that eventuality. The two Modifications are drafted flexibly (by referring to the intraday gate closure, rather than Gate Closure) so that ISTs can be updated within 5 minutes, irrespective of the actual intraday gate closure time.

The existing timings for the allocation of cross border capacity are defined in individual, bilateral interconnector access rules, with nomination gate closures typically two to eight hours before delivery.

In addition to the requirements set out in individual Interconnector’s access rules, BSC Section R7 specifies rules for the use of ISTs to determine Expected Transfers and therefore BM Unit Metered Volumes for Interconnector BMUs. ISTs are therefore essential for calculating volumes for Settlement purposes.

In general, the BSC rules use ISTs at Gate Closure to determine Expected Transfers at Gate Closure. However, BSC Section R 7.1.3 sets out specific circumstances in which ISTs may be adjusted after Gate Closure and Section R 7.3.1 sets out how Expected Transfers may be adjusted should an IST be changed post-Gate Closure.

Seeing as ISTs will need to reflect the outcome of intraday cross-zonal trading, existing scheduling processes on interconnectors will have to be modified to accommodate the intraday cross-zonal gate closure, the time, post-gate closure, needed to incorporate the outcome of intraday trading in ISTs and to notify NGET of amended ISTs. It is expected that intraday cross-zonal gate closure will be every hour, on the hour.

These changes will impact existing data transfers between NGET and interconnector owners, leading to GC0099 being raised. In addition, existing ‘Methodology Statements for Determination of System-to-System Flow’ will also have to be updated to reflect these changes. The existing Interconnection Agreements and Operating protocols will also have to be updated.

This BSC Modification is required to ensure consistency between the Grid Code and BSC in light of changes to the GB and EU balancing processes by CACM. In particular, if the Grid Code is amended as proposed in GC0099, it is essential to ensure that the BSC and Grid Code provisions do not conflict with each other. Furthermore, the adjustments to ISTs can be reflected in Expected Transfers and therefore Interconnector BMU Metered Volumes.

4 Code Specific Matters

Technical Skillsets

The Proposer believes that the following technical skillset are required to assess this Modification:

- An understanding of the existing interconnector scheduling processes on IFA, BritNed, EWIC and Moyle, and any future interconnectors, as described in BSC Section R;
- An understanding of the single intraday coupling processes proposed under Regulation 2015/1222 (CACM);
- An understanding of the impact of the interconnector scheduling processes on the GB and EU balancing processes (current and future); and
- An understanding of the proposed changes as set out in Grid Code Modification GC0099.

Reference Documents

Grid Code Modification GC0099;

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

COMMISSION REGULATION (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management:

http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2015.197.01.0024.01.ENG&toc=OJ:L:2015:197:TOC

Methodology Statements for Determination of System-to-System Flow

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Balancing-and-Settlement-code/>

All TSO intraday cross zonal gate times proposal

https://www.entsoe.eu/Documents/Network%20codes%20documents/Implementation/cacm/161214_Atth5_IDCZGT_proposal_allTSOs_approved.pdf

XBID user group meeting minutes

https://www.apxgroup.com/wp-content/uploads/160629-XBID-4.-UG_Meeting_Minutes_FINAL.pdf

BSC Section R paragraph 7

<https://www.elexon.co.uk/bsc-related-documents/balancing-settlement-code/bsc-sections/>

IFA access rules

BritNed access rules

EWIC access rules

Moyle access rules

5 Solution

Proposed Solution

This Modification proposes to modify the process described in BSC Section R to allow post-Gate Closure adjustments to the IST. These adjustments should be allowed to ensure ISTs, Expected Transfers and BMU Metered Volumes fully reflects the results of the single intraday coupling. In addition, this Modification proposes post-Gate Closure timings consistent with the timings proposed in GC0099.

Under GC0099, Interconnector owners shall deliver an updated IST to NGET by five minutes after each intraday cross-zonal gate closure time. The updated IST shall fully reflect the results of the single intraday market coupling.

It is proposed to add an additional reason to BSC R7.1.3(b) to require post Gate-Closure changes to the IST within five minutes after the intraday cross-zonal gate closure time, to ensure ISTs fully reflect the results of the single intraday market coupling.

This will be achieved through three changes to the BSC:

1. Introduction of the CACM definition of the intraday cross-zonal Gate Closure time;
2. Introduction of a new reason for why the IST must be modified after Gate Closure, with a time limit of five minutes after the intraday cross-zonal Gate Closure time; and
3. Introduction of a new reason for why Expected Transfers are adjusted to reflect the change in the IST.

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 (PNs). Currently, any PNs received after Gate Closure will be rejected in accordance with Grid Code BC1.4.4, and BM Participants must follow the PN in force at Gate Closure in accordance with Grid Code BC2.5.1.

It is NGET's view that the Physical Notification data (and Final Physical Notification data) provisions can remain unchanged, as a best estimate (prevailing at gate closure). NGET validated this understanding at the GC0099 workgroup, where workgroup members noted that even today many other BM Participants do not have a 100% accurate estimate of their Physical Notification data at Gate Closure (e.g. wind or solar generators).

Relevant Grid Code references;

“Physical Notification

*Data that describes the **BM Participant's** best estimate of the expected input or output of **Active Power** of a **BM Unit** and/or (where relevant) **Generating Unit**, the accuracy of the **Physical Notification** being commensurate with **Good Industry Practice**.”*

*“As described in BC1.4.2(a), **Physical Notifications** must represent the **BM Participant's** best estimate of expected input or output of **Active Power** and shall be prepared in accordance with **Good Industry Practice**.”*

Additionally from the BSC;

“Final Physical Notification Data”: means, in respect of a Settlement Period and a BM Unit, the data which is referred to in Section Q3.2.2 and which complies with the requirements of Section Q3.2.3;

“3.2.2 For each Settlement Period, the Final Physical Notification Data in respect of a BM Unit shall be the data specified in the Physical Notification in respect of that BM Unit prevailing at Gate Closure.”

6 Impacts & Other Considerations

Impacts

This Proposed Modification will impact NGET (as the Transmission Company) and interconnectors. It is envisaged that the IST processes in BSC Section R7, including the Methodology Statements for Determination of System-to-System Flow, and corresponding processes described in the relevant Interconnection Agreements will also be impacted.

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

This Modification does not impact SCR or any other significant industry change projects.

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.

Environmental Impacts

N/A

7 Relevant Objectives

Impact of the Modification on the Relevant Objectives:	
Relevant Objective	Identified impact
(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence	Positive
(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System	Positive
(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	Positive

(d) Promoting efficiency in the implementation of the balancing and settlement arrangements	Neutral
(e) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency [for the Co-operation of Energy Regulators]	Positive
(f) Implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation	Neutral
(g) Compliance with the Transmission Losses Principle	Neutral

Justification for each Applicable BSC Objective

- (a) NGET has a license condition to “to avoid conflict or inconsistency as between the BSC and any core industry document or industry code”;
“C3.12

The licensee shall take all reasonable measures to secure and implement (consistently with the procedures applicable under or in relation to the core industry documents and/or industry codes to which it is party (or in relation to which it holds rights in respect of amendment)), and shall not take any steps to prevent or unduly delay, changes to those documents, such changes being changes which are appropriate in order to give full and timely effect to and/or in consequence of any Modification which has been made to the BSC, including, but not limited to, changes that are appropriate in order to avoid conflict or inconsistency as between the BSC and any core industry document or industry code.”

- (b) Common timings on all interconnectors for the delivery and adjustment of ISTs facilitates efficient, economic and co-ordinated operation of the National Electricity Transmission System.
- (c) This Modification facilitates the implementation of Regulation (EU) 2015/1222 which aims to promoting effective competition in the generation, trading and supply of electricity, through the introduction of pan-EU single intraday market coupling.
- (d) Post Gate Closure alterations to the IST are permitted today under the existing BSC arrangements, this Modification only provides an additional permitted reason, so is not anticipated to positively or negatively impact the efficiency in the implementation of the balancing and settlement arrangements.
- (e) This Modification facilitates the implementation of Regulation (EU) 2015/1222.
- (f) No impact on implementing and administrating the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation anticipated
- (g) No impact on the compliance with the Transmission Losses Principle anticipated.

8 Implementation Approach

The Proposer believes that 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.

9 Legal Text

BSC Changes required

The Proposer believes that three significant changes to BSC Section R are required:

- Introduction of the CACM definition of the intraday cross-zonal gate closure time;
- Introduction of a new reason why the IST can be modified after Gate Closure, with a time limit of five minutes after the intraday cross-zonal gate closure time; and
- Introduction of a new reason for why Expected Transfers are adjusted to reflect the change in the IST.

Suggested Text

1 - ANNEX X-1: GENERAL GLOSSARY changes

"Interim Information Volume Allocation Run": has the meaning given to that term in Section U2.3;

"Intraday Cross-Zonal Gate Closure Time": has the meaning set out in the Regulation (EU) 2015/1222.

"Investment Account": means an interest bearing account with a bank or building society into which Reserve Account monies are deposited;

2 - Section R 7.1.3 changes

7.1.3 For the purposes of this paragraph 7:

(a) the "Interconnector Scheduled Transfer" for each Interconnector in relation to a Settlement Period is the Active Energy flow, scheduled for all Interconnector Users (and not exceeding the physical capability of the Interconnector as from time to time determined under the relevant Interconnection Agreements), across the Interconnector (as a whole), as established pursuant to the relevant Interconnection Agreements between the Interconnected System Operator and the Externally Interconnected System Operator, stated as at the Transmission System Boundary, in the form of a schedule expressed as MW values for the spot times at the start and end of, and other spot times within, the Settlement Period;

(b) after Gate Closure in relation to any Settlement Period, the Interconnector Scheduled Transfer is to be adjusted to reflect:

- (i) any failure or derating of the physical capability of the Interconnector (as determined under the relevant Interconnection Agreements), and any subsequent uprating of the physical capability of the Interconnector provided that the uprated capability does not exceed the Interconnector Scheduled Transfer established at Gate Closure;

(ii) the acceptance by the Transmission Company of any Offer or Bid submitted by an Interconnector User in respect of an Interconnector BM Unit;

(iii) the results of the single intraday market coupling by 5 minutes after each intraday cross-zonal gate closure time; or

~~(iii)~~ (iv) any event occurring in relation to an External System, to the extent so provided in the relevant Interconnection Agreements, as notified to the Interconnector Administrator;

but shall not otherwise be adjusted.

10 Recommendations

Proposer's Recommendation to the BSC Panel

The BSC Panel is invited to:

- Agree that P356 not be progressed as a Self-Governance Modification Proposal; and
- Agree that P356 be sent into the Assessment Procedure for assessment by a joint BSC and Grid Code Workgroup.