










BSC Modification Proposal Form		At what stage is this document in the process?
<h1>P410</h1> <h2>Mod Title: Changing imbalance price calculations to comply with the Imbalance Settlement Harmonisation regulations</h2>		<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="border: 1px solid green; background-color: #00a651; color: white; padding: 5px; display: flex; justify-content: space-between; align-items: center;">01 Modification</div> <div style="border: 1px solid blue; padding: 5px; display: flex; justify-content: space-between; align-items: center;">02 Workgroup Report</div> <div style="border: 1px solid purple; padding: 5px; display: flex; justify-content: space-between; align-items: center;">03 Draft Modification Report</div> <div style="border: 1px solid orange; padding: 5px; display: flex; justify-content: space-between; align-items: center;">04 Final Modification Report</div> </div>
<p>Purpose of Modification:</p> <p>This Modification will introduce changes to the imbalance price calculations to ensure BSC compliance with the European Imbalance Settlement Harmonisation regulations.</p>		
<p>Is this Modification likely to impact any of the European Electricity Balancing Guideline (EBGL) Article 18 Terms and Conditions held within the BSC?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>		
	<p>The Proposer recommends that this Modification should:</p> <ul style="list-style-type: none"> not be a Self-Governance Modification Proposal be assessed by a Workgroup and submitted into the Assessment Procedure <p>This Modification will be presented by the Proposer to the BSC Panel on 9 July 2020. The Panel will consider the Proposer's recommendation and determine how best to progress the Modification.</p>	
	<p>High Impact:</p> <p>National Grid ESO as the National Electricity Transmission System Operator (NETSO)</p> <p>ELEXON as Balancing and Settlement Code Company (BSCCo)</p>	
	<p>Medium Impact:</p> <p>BSC Trading Parties (Generators, Suppliers, Non-Physical Traders, Virtual Lead Parties, Interconnector Users)</p>	
	<p>Low Impact:</p> <p>None</p>	

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Timetable		Proposer: <i>National Grid ESO</i>
The Proposer recommends the following timetable:		Proposer's representative: <i>Jamie Webb</i>
Panel considers Initial Written Assessment	9 July 2020	 jamie.webb@nationalgrid.com
Initial consideration by Workgroup	w/c 3 August 2020	nationalgrid.com
Assessment Procedure Consultation	21 September 2020 - 9 October 2020	 07768 537 317
Workgroup Report presented to Panel	12 November 2020	
Report Phase Consultation and EBGL change process	19 November 2020 - 21 December 2020	
Draft Modification Report presented to Panel	14 January 2021	
Final Modification Report submitted to Authority	21 January 2021	

1 Why Change?

What is the issue?

[Commission Regulation \(EU\) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing](#) (‘the EBGL’) Article 52(2) requires that Transmission System Operators (TSOs) establish a methodology for harmonising the determination and application of an imbalance price in an Imbalance Settlement Harmonisation proposal (‘the ISHP’). The latest version of the proposal is in draft form with the Association for the Cooperation of Energy Regulators (ACER), and has been submitted to the Board of Regulators for approval. There will need to be BSC changes based on the expected draft, and there is no indication that this position will change prior to the final decision. Even if there are changes between the draft and approved ISHP, it is very likely that changes to the BSC will be required.

Under the current drafting of the ISHP the Market Index Price (MIP) will no longer be a valid component of any imbalance price. The ISHP requires that in the case where there is no activation of balancing energy in either direction (i.e. Net Imbalance Volume (NIV) = 0MWh) a ‘Value of Avoided Activation of balancing energy’ (VOAA) is used to determine the imbalance price. The EBGL further requires that VOAA is based on available prices of Replacement Reserves (RR) or Frequency Restoration Reserves (FRR). This means it cannot be based on prices from another market. As the MIP is based on prices from intraday wholesale electricity markets, it is not a valid VOAA.

This Modification must find and apply a new VOAA that can be used in the imbalance price calculations where NIV=0.

Other Considerations

There may be other changes required based on the final approved text of the ISHP. These issues will be considered as and when they arise. As the defect for this Modification is that the current BSC is non-compliant with the ISHP, we will consider any new issues arising to be relevant for consideration within this Modification. A non-exhaustive list of potential issues we are monitoring are:

- Whether the Buy/Sell Price adjusters constitute as an “Incentivisation component” and whether they should remain in the ISHP calculation going forward.
 - Early indications show we are likely to need further input to understand whether we should include these price adjusters in the methodology or not.
- Whether the NIV tagging is valid rationale for designating a system balancing action resulting in energy only balancing actions in one direction.
 - We believe that NIV tagging is compliant with the ISH proposal as Article 7(3) requires that single pricing uses the price for energy that contributes towards reducing system imbalance.
 - Article 9(1)/9(2) requires that the calculation of that price referred to in 7(3) is only from energy activated in one direction.
 - While the price of negative and positive activations of balancing energy both constitute ‘components’ of the imbalance price, we can’t see any requirement to calculate both for each ISP (there is an ‘or’ in 7(2) which seems to negate this requirement i.e. if using one, we don’t need to use the other).
 - We believe that once the final version of the Article is approved by ACER that this “issue” disappears.
- Whether we can continue to use Price Average Reference Volume 1 (PAR1).

- The Proposal requires the use of either weighted average or maximum/minimum (marginal) price approaches for the calculation of the imbalance price from the actions in the price stack. However, the proposal does not define maximum or minimum price. We consider that the PAR1 calculation constitutes a marginal pricing approach, and is therefore compliant with the proposal.

Desired outcomes

The primary desired outcome is that the calculation of the imbalance price is compliant with the requirements of the ISHP. The secondary desired outcome is that the calculated imbalance price is, in all cases, an incentive to Parties to remain in balance or to sustain an imbalance that is beneficial to the balance of the total system.

2 Solution

Proposed Solution

The solution will introduce a new parameter – VOAA - to [BSC Section T 'Settlement and Trading Charges'](#) to be used in the calculation of the imbalance price. VOAA will replace the current function of the MIP in the imbalance price calculations.

The VOAA:

- must be based on the price of available energy from RR and FRR;
- must be reflective of the cost of balancing the system; and
- should provide an incentive to Parties to be in balance or to balance favourably. That is, in case there has been no activation of balancing energy the resulting price should provide no incentive for any Party to deviate from their position¹.

We believe that it may be challenging to achieve all three of these aims. However, the first two are explicit requirements of the ISHP that any solution must satisfy.

The VOAA may be derived from bids and offers for both standard products (traded on the Trans-European Replacement Reserve Exchange (TERRE) or Manually Activated Reserve Initiative (MARI) platforms) and specific products (such as the Balancing Mechanism (BM)). This will depend on access to the platforms following negotiations on the enduring relationship between the UK and the EU.

ELEXON already has permission to access data from the TERRE platform and submitted bids and offers for the BM. ELEXON has performed an initial analysis of the available BM data and has determined that data cleansing and insight would be needed for it to be effectively used to calculate the VOAA. In particular, invalid bids and offers would need to be removed from the data and there may need to be some insight from NGESO regarding which of the remaining bids and offers constitute viable balancing energy (for example not located behind a constraint).

¹ 'Favourable imbalance' is challenging to define in situations where there has been no activation of balancing energy. As the system maintained balance, technically all imbalance are favourable to maintaining the system. Therefore, the price should incentivise the maintenance of a Party's position, or disincentivise the alteration of a Party's position.

BM data could then be an input to a calculation to find a midpoint between 'next most expensive prices' of RR and FRR bids for the calculation VOAA. This assessment could include or discount bids and offers activated for system reasons.

Platforms will calculate prices regardless of whether or not balancing demand was activated from a given TSO, and the price calculated would represent the marginal price of balancing for that TSO. The TSO would be exposed to that price whether they needed positive or negative balancing energy. Similarly, it represents a price at which Parties are willing to change their position (in either direction).

One or both of these prices could be used, and the way in which the prices are combined could vary. A straight average is most likely to give a result reflective of available bids and offers².

The solution may disapply the MIP and remove reference to it in the BSC and BSC systems. It will no longer serve a purpose in respect of calculating the imbalance price. There may be a rational argument to maintain the calculation and publication of the MIP. This can be discussed in the Workgroup.

Benefits

This Modification will provide the following benefits:

- For GB to be compliant with the requirements of Article 52.
- Balancing energy pricing continues to be reflective of the cost of balancing the system.
- Balancing energy pricing continues to incentivise favourable imbalances and disincentivise unfavourable imbalances.

² A volume weighted average is not applicable in this scenario, as there are no activated volumes to contribute towards a weighting.

3 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	Neutral
(b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System	Neutral
(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

We believe this Modification positively impacts Applicable BSC Objective **(e)** as it will ensure compliance with the ISHP, as per the EBGL. We also believe this Modification positively impacts Applicable BSC Objective **(c)** as it harmonises the imbalance settlement approach with other markets across the EU, improving competition and access to markets.

While this Modification will also ensure efficient operation of the National Electricity Transmission System (Applicable BSC Objective **(b)**) we do not consider that it results in a more efficient outcome than the existing baseline, as we believe the MIP continues to be a reasonable proxy where it is used. We would not recommend any change to the existing calculations if the MIP continued to be compliant with the ISHP. We therefore believe that the Modification will be neutral on Applicable BSC Objective (b).

4 Potential Impacts

Impacts on Core Industry Documents

Impacted Core Industry Documents			
<input type="checkbox"/> Ancillary Services Document	<input type="checkbox"/> Connection and Use of System Code	<input type="checkbox"/> Data Transfer Services Agreement	<input type="checkbox"/> Use of Interconnector Agreement
<input type="checkbox"/> Master Registration Agreement	<input type="checkbox"/> Distribution Connection and Use of System Agreement	<input type="checkbox"/> System Operator Transmission Owner Code	<input type="checkbox"/> Supplemental Agreements
<input type="checkbox"/> Distribution Code	<input type="checkbox"/> Grid Code	<input type="checkbox"/> Transmission License	<input type="checkbox"/> Other (please specify)

We do not believe there will be any impact on industry documents outside of the BSC, and that the BSC will contain all necessary obligations to deliver the data required for the calculation and application of VOAA.

Impacts on BSC Systems

Impacted Systems				
<input type="checkbox"/> CRA	<input type="checkbox"/> CDCA	<input type="checkbox"/> PARMS	<input checked="" type="checkbox"/> SAA	<input checked="" type="checkbox"/> BMRS
<input type="checkbox"/> EAC/AA	<input type="checkbox"/> FAA	<input type="checkbox"/> TAAMT	<input type="checkbox"/> NHHDA	<input type="checkbox"/> SVAA
<input type="checkbox"/> ECVAA	<input type="checkbox"/> ECVAA Web Service	<input checked="" type="checkbox"/> ELEXON Portal	<input type="checkbox"/> Other (Please specify)	

We believe that the Settlement Administrator Agent (SAA) and the Balancing Mechanism Reporting Service (BMRS) systems will need new calculations to determine VOAA and to deliver it into the imbalance price calculations. There may also be some reconfiguration of ELEXON Portal data files to include the new value and details of the calculations performed.

Impacts on BSC Parties

Impacted Parties			
<input checked="" type="checkbox"/> Supplier	<input checked="" type="checkbox"/> Interconnector User	<input checked="" type="checkbox"/> Non Physical Trader	<input checked="" type="checkbox"/> Generator
<input type="checkbox"/> Licensed Distribution System Operator	<input checked="" type="checkbox"/> National Electricity Transmission System Operator	<input checked="" type="checkbox"/> Virtual Lead Party	<input type="checkbox"/> Other (Please specify)

This Modification will impact all BSC Trading Parties who are exposed to imbalance prices, as it will change the imbalance price in some scenarios. Additionally, NGENSO may need to provide new data and perform some elements of data cleansing and categorisation, depending on the solution.

Legal Text Changes

The following BSC Sections will need to be amended to deliver the changes required by this Modification:

- [T 'Settlement and Trading Charges'](#) will be edited to introduce the new VOAA parameter and calculations.
- [X-1 'General Glossary'](#) and [X-2 'Technical Glossary'](#) will be updated with terminology for VOAA and the parameters necessary for the calculation of VOAA.
- [V 'Reporting'](#) (and/or the [BMRS Data Catalogue](#)) will be updated to include new data relating to VOAA.
- [Q 'Balancing Service Activities'](#) may be updated if there are additional requirements on bid-offer pair data submitted by NGESO for the calculation of VOAA.

In the event that the calculation and publication of the Market Index Price is discontinued, there will be additional changes to BSC Sections:

- [B 'The Panel'](#);
- [C 'BSCCo and its Subsidiaries'](#);
- [D 'BSC Cost Recovery and Participation Charges'](#);
- [H 'General'](#);
- [O 'Communications Under the Code'](#);
- [T 'Settlement and Trading Charges'](#);
- [V 'Reporting'](#);
- [W 'Trading Disputes'](#);
- [X-1 'General Glossary'](#); and
- [X-2 'Technical Glossary'](#).

These changes will remove references to Market Index Data, Market Index Data Providers, Market Index Data Provider Contracts, the Market Index Definition Statement and Market Index Volumes and the associated parameters.

5 Governance

Self-Governance

<input checked="" type="checkbox"/> Not Self-Governance – A Modification that, if implemented:	
<input type="checkbox"/> materially impacts the Code’s governance or modification procedures	<input type="checkbox"/> materially impacts sustainable development, safety or security of supply, or management of market or network emergencies
<input checked="" type="checkbox"/> materially impacts competition	<input checked="" type="checkbox"/> materially impacts existing or future electricity consumers
<input type="checkbox"/> materially impacts the operation of national electricity Transmission System	<input type="checkbox"/> is likely to discriminate between different classes of Parties
<input checked="" type="checkbox"/> will involve amendments to the EBGL Article 18 Terms and Conditions related to Balancing; except to the extent required to correct an error or as a result of a factual change	
<input type="checkbox"/> Self-Governance – A Modification that, if implemented:	
Does not materially impact on any of the Self-Governance criteria provided above	

This Modification will result in a change in the way the imbalance price is calculated in some scenarios, which may have some impact on competition between Parties and on the cost of electricity for consumers. It is likely that this Modification will require changes to the EBGL Article 18 Terms and Conditions contained within the BSC. Therefore we consider this Modification **should not** be treated as Self-Governance, as it materially impacts the Self-Governance Criteria.

Progression route

<input checked="" type="checkbox"/> Submit to assessment by a Workgroup –:A Modification Proposal which:	
does not meet any criteria to progress via any other route.	
<input type="checkbox"/> Direct to Report Phase – A Modification Proposal whose solution is typically:	
<input type="checkbox"/> of a minor or inconsequential nature	<input type="checkbox"/> deemed self-evident
<input type="checkbox"/> Fast Track Self-Governance – A Modification Proposal which meets the Self-Governance Criteria and:	
is required to correct an error in the Code as a result of a factual change including but not limited to:	
<input type="checkbox"/> updating names or addresses listed in the Code	<input type="checkbox"/> correcting minor typographical errors
<input type="checkbox"/> correcting formatting and consistency errors, such as paragraph numbering	<input type="checkbox"/> updating out of date references to other documents or paragraphs
<input type="checkbox"/> Urgent – A Modification Proposal which is linked to an imminent issue or current issue that if not urgently addressed may cause:	
<input type="checkbox"/> a significant commercial impact on Parties, Consumers or stakeholder(s)	<input type="checkbox"/> a Party to be in breach of any relevant legal requirements.

a significant impact on the safety and security of the electricity and/or gas systems

We do not believe the Modification meets the criteria for any progression route other than progression via a Workgroup as the solution may materially impact the calculation of the imbalance price, and will benefit from Workgroup discussion.

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

We do not believe this Modification impacts on any existing SCR or other significant industry change projects, beyond some relationship with wider implementation of changes to ensure compliance with European Regulation.

Does this modification impact on end consumers or the environment?

This Modification will change the calculation of the imbalance price in some circumstances, which may have a small impact on the cost of energy for consumers. Actual costs will depend on a customer's Supplier and that Supplier's hedging and operations strategy, as well as system management conditions on a per Settlement Period basis.

Does this Modification impact any of the EBGL Article 18 Terms and Conditions held within the BSC?

It is likely that this Modification will require changes to parts of the BSC which constitute the EBGL Article 18 Terms and Conditions.

Implementation approach

This Modification must be implemented within 18 months of ACER's decision on the final form of the ISHP. We currently anticipate that decision in July 2020, meaning December 2021 is the latest possible time for implementation. This Modification has not been raised until the final stages of approval of the ISHP to maximise the clarity around the solution when raising the Modification.

Given the potential for material systems changes for both BSCCo and NGESO we aim to have the workgroup process finished and a final Modification report consulted on and submitted to Ofgem by January 2021 at the latest.