BSC Modification Proposal Form	At what stage is this document in the process?

P467

Mod Title: Enduring solution for cash out price calculation in the event of a Gas Deficit Emergency (GDE)

01 Modification

02 Workgroup Report

03 Draft Modification Report

04 Final Modification Report

Purpose of Modification:

In 2022, BSC Change Proposal P448 was raised to protect generation parties who load shed from high imbalance prices during a Gas Deficit Emergency (GDE).

Following P448, the Issue Group 105 was created to explore scenarios whereby there are issues around gas shortages, and the electricity market is long, and what the subsequent impacts would be on cash out prices. In this scenario, the outputs of P448 would essentially supress the cash out prices, leading to the market being unable to correct itself. This would lead signals being sent causing parties that are short to potentially decide to pay the suppressed cash out price instead of trading out of their position.

This Modification would remove bids from the cash out stack by winter 2024/25 as an enduring solution. This solution would keep the current Bids as they are, but not include them within the stack. This option will still include them in the imbalance calculation and the reasonable cost recovery will be covered.

Is this Modification likely to/Does this Modification impact any of the European Electricity Balancing Guideline (EBGL) Article 18 Terms and Conditions held within the BSC?

☐ Yes ☒ No

The Proposer recommends that this Modification should:

- be sent directly into the Report Phase

This Modification will be presented by the Proposer to the BSC Panel on 8 February 2024. The Panel will consider the Proposer's recommendation and determine how best to progress the Modification.

Medium Impact:

National Grid ESO, BSC Parties, Elexon, All trading parties

Contents

Timetable

The Proposer recommends the following timetable:

Initial Written Assessment	08 February 2024
Report Phase consultation	12 February 2024 – 26 February 2024
Draft Modification Report presented to Panel	14 March 2024
Final Modification Report submitted to Authority	18 March 2024

Any questions?

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1 Why Change?

What is the issue?

Context

In 2022, BSC Change Proposal P448 'Mitigating Gas Supply Emergency Risks'[1] was raised by Scottish and Southern Energy under an urgent timetable to protect Generators who load shed from high imbalance prices during a National Gas Deficit Emergency (NGDE).

This was a direct result of the increase in the likelihood of a NGSE occurring due to the ongoing Russian invasion of Ukraine, meaning that GB generators were more likely to face high imbalance charges.

P448 was implemented on 7 December 2022, placing a mechanism in the BSC that allows Load Shedding instructions issued during a Stage 2+ Network Gas Supply Emergency to be treated as Accepted Bids for BSC purposes (the status quo). P448 introduced an interim solution to the problem, which focused on removing imbalance charges from Curtailed Gas generators, and recovering reasonable costs. A mechanism was placed into the BSC that allows Load Shedding instructions to be treated as a type of Acceptance (a Network Gas Supply Emergency Acceptance; NGSEA) which would be settled as a Bid for affected BM Units. In this scenario, the outputs of P448 would essentially supress the cash out prices, leading to the market being unable to correct itself. This would lead signals being sent causing parties that are short to potentially decide to pay the suppressed cash out price instead of trading out of their position. This could lead to insufficient generation coming online and therefore a higher chance of a demand disconnection event occurring.

The Urgent nature of P448 meant that there was not sufficient time to fully consider some of the consequential impacts of implementing P448, so Issue 105[2] 'Further considerations following implementation of BSC Modification P448' was raised to explore scenarios whereby there are issues around gas shortages, and the electricity market is long, and what the subsequent impacts would be on electricity imbalance pricing, otherwise known as 'cash out' prices.

The Issue 105 Workgroup recommended that a Modification should be raised to remove the P448 Bids from the cash out price calculation to ensure that the correct market signals are sent in all scenarios to provide more certainty and a more robust enduring solution.

The group agreed to look into an interim solution for 2023/24, but National Grid ESO advised that placing resources into an enduring solution would be best use of industry resource. As such, National Grid ESO have brought forward this enduring Modification to ensure protection for generators in a Stage Two Gas Supply Emergency to be in place from November 2024.

What are the unintended consequences for cash out Prices from P448?

Where a BM Unit includes Generation plant which has been notified of a Load Shedding instruction from the Gas System Operator (GSO) during a Stage 2 or 3 Network Gas Supply Emergency (a "gas curtailment"), it is likely that that the BM Unit will be unable to generate, and, if the Generator had already sold that power, the Lead Party (and associated Subsidiary Parties) of the BM Unit would be exposed to a

[1] https://www.elexon.co.uk/mod-proposal/p448/
[2] https://www.elexon.co.uk/smg-issue/issue-105/

potentially unmanageable Imbalance Charge, especially if the gas curtailment lasts for longer than just a few Settlement Periods.

To mitigate this risk, P448 placed a mechanism in the BSC that allows the Load Shedding instruction to be treated as a type of Acceptance (a Network Gas Supply Emergency Acceptance; NGSEA) which would be settled as a Bid for affected BM Units. The Bids may feed into the imbalance price calculation and will reflect the Generator's contracted position at the point that the Load Shedding instruction was received.

In its P448 Decision Letter (available on the P448 webpage) the Authority noted that where the Bids feed into the Imbalance Price calculation, this is likely to reduce the Imbalance Price which could weaken the cash out price signal presented to the market. The Issue 105 Workgroup was therefore tasked with considering the interactions between P448 and cash out.

What did Issue 105 Workgroup Recommend?

Having considered the scenarios provided by Elexon, the Issue 105 Workgroup recommend that a Modification be raised to keep the P448 Bids as they are, but not include them in the cash out price calculation.

This will require a system change to remove the Bids from the stack. By using the P448 Bids as normal in the rest of Settlement, there will be no need to make any changes in the cash flow calculations allowing reasonable costs to be recovered from curtailed gas Generators.

This will allow the cash out price to send accurate market signals for all possible scenarios without affecting anything else that was implemented as part of P448.

2 Solution

Proposed Solution

The proposed solution would be to keep the Bids as per status quo but remove them from the Imbalance price calculation. It would mean removing the Bids from the System Sell Actions to calculate the Energy Imbalance Prices and ensuring that the correct signals are sent to the market during a National Gas Supply Emergency (NGSE) in all scenarios; while not removing the intention of P448 to protect the impacted generators imbalance position and recovery of reasonable costs

This will be calculated outside of the Settlement Administration Agent (SAA) and then fed into the SAA as a contingency process due to the low expectation of this event happening.

The proposed solution is to retain the current BCSP18 process for receiving National Gas Supply Emergency (NGSE) bids but not include them in the calculation of the imbalance price (SSP,SSB), but keeping them in place for calculating a parties imbalance and recovering reasonable costs

To progress the Modification without delay, this will be done initially by manual workaround using a model of the imbalance price calculation. This is estimated at six person days per day of gas emergency. Subsequently a new tool that will be developed as part of this Modification to automate the process and reduce the risk of manual error.

A user will be able to input Bid Offer data into the tool and recalculate the imbalance price for each settlement period; but omitting the NGSE bids as part of this process

This recalculated imbalance price will then be inputted into SAA to overwrite what has been calculated by the SAA system in time for the SF run, using the existing BSC Contingency - single imbalance price file.

Benefits

The Modification would provide security and certainty to generators who load shed from high imbalance prices during a NGSE. This will also reduce negative impacts to the cash out price as a result of P448 as parties will have clarity on the cash out price during a NGSE event as it will be more reflective of current market conditions leading to the correct actions being taken, reducing the risk of a demand disconnection event

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	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	Neutral
(d) Promoting efficiency in the implementation of the balancing and settlement arrangements	Positive
(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]	Neutral
(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

The Modification would provide security and certainty to generators who load shed from high imbalance prices during a NGSE. In respect of the ESO's obligations relating to system balancing, with the associated benefits around security of supply, this change will facilitate the affected generators continuing to participate in the market and operate for system stability purposes in light of a GDE.

This will also reduce negative impacts to the Cash Out price as a result of P448. This will lead to these generators not being exposed to higher costs, promoting security of supply and efficiency, as well as efficiency in system operation under objective (b).

This will also negate issues experienced by said generators, as well as promoting liquidity in markets under objective (c), and makes the management of this via the Balancing and Settlement Code under objective (d) more efficient. This Modification solidifies the arrangements within the BSC around a Gas Deficit emergency and codifies the solution on an enduring basis, giving certainty within BSC arrangements for industry as a whole under section (d).

4 Potential Impacts

Impacts on Core Industry Documents

Impacted Core Industry Documents			
☐Ancillary Services Document	☐Connection and Use of System Code	☐Data Transfer Services Agreement	☐Use of Interconnector Agreement
☐Retail Energy Code	☐ Transmission License	☐System Operator Transmission Owner Code	☐Supplemental Agreements
☐Distribution Code	☐Grid Code	☐ Other (please specify)	

No impact identified on Core Industry Documents.

Impacts on BSC Systems

Impacted Systems				
☐CRA	☐CDCA	☐PARMS	☐SAA	☐BMRS
☐EAC/AA	☐FAA	☐TAAMT	☐NHHDA	☐SVAA
☐ECVAA	☐ECVAA Web Service	☐Elexon Portal	☐Other (Please specify)	

No impact identified on any of BSC systems. If a GDE event occurs, the details will be published separately or reported to the Panel on price changes for transparency.

Impacts on BSC Parties

Impacted Parties			
☒Supplier	☒Interconnector User	☐Non Physical Trader	☒Generator
☐Licensed Distribution System Operator	☐National Electricity Transmission System Operator	☒Virtual Lead Party	☐Other (Please specify)

All trading Parties are impacted by the imbalance prices. Virtual Lead Parties will have to pay the cash out prices in case of a NGSE, if they are imbalanced.

Impacts on consumers and the environment

Impact of the Modification on consumer benefit areas:	
Consumer benefit area	Identified impact
Improved safety and reliability Supports system participants during National Gas Supply Emergency (NGSE) scenarios	Positive
Lower bills than would otherwise be the case	Neutral
Reduced environmental damage	Neutral
Improved quality of service Reduces risk during a NGSE by providing security and certainty to generators who load shed from high imbalance prices during this event	Positive
Benefits for society as a whole Supports infrastructure during NGSE	Positive

Legal Text Changes

We believe that the change required under this Modification will be achieved by a simple tweak to Section T Annex T-1 paragraph 1.2(c)(i) by expressly excluding Network Gas Supply Emergency Acceptances from the definition of “System Sell Action”. This will ensure that Network Gas Supply Emergency Acceptances are not being taken into account for the Ranked Sets referred to in Section T Annex T-1 paragraph 2.1 which refer to System Sell Actions.

This change would effectively remove Network Gas Supply Emergency Acceptances from the imbalance pricing calculations whilst keeping in place the remaining provisions for Settlement.

5 Governance

Self-Governance *(choose one)*

☒ **Not Self-Governance –** A Modification that, if implemented:	
☐ materially impacts the Code's governance or modification procedures	☒ materially impacts sustainable development, safety or security of supply, or management of market or network emergencies
☐ materially impacts competition	☐ materially impacts existing or future electricity consumers
☐ materially impacts the operation of national electricity Transmission System	☐ is likely to discriminate between different classes of Parties
☐ involves any 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	
☐ **Self-Governance –** A Modification that, if implemented:	
Does not materially impact on any of the Self-Governance criteria provided above	

This Modification aims to materially impact sustainable development and ensure security of supply in an event of National Gas Supply Emergency hence to be considered Not a Self-Governance Modification.

Progression route

☐ **Submit to assessment by a Workgroup** –A Modification Proposal which:	
does not meet any criteria to progress via any other route.	
☒ **Direct to Report Phase** – A Modification Proposal whose solution is typically:	
☐ of a minor or inconsequential nature	☒ deemed self-evident
☐ **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:	
☐ updating names or addresses listed in the Code	☐ correcting minor typographical errors
☐ correcting formatting and consistency errors, such as paragraph numbering	☐ updating out of date references to other documents or paragraphs
☐ **Urgent –** A Modification Proposal which is linked to an imminent issue or current issue that if not urgently addressed may cause:	
☐ a significant commercial impact on Parties, Consumers or stakeholder(s)	☐ 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	

This Modification is recommended as suitable for progressing as direct to Report Phase, without the need for an industry Workgroup as the solution was developed by the Issue 105 Workgroup and there are no other viable solutions, and nothing that would need a Workgroup to be convened to discuss.

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

No. Elexon have requested that Ofgem treat this Modification as SCR-exempt

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

No

Implementation approach

The Modification should be implemented by Winter 2024/25. Given the necessary lead times to make the system changes to the price calculation model, we recommend this Modification is implemented in the June 2024 BSC Release. This approach enables go live of this Modification in time for Winter 2024/25, as desired.