

**Phase**

Initial Written Assessment

Definition Procedure

Assessment Procedure

Report Phase

Implementation

## P371 'Levelling the playing field - Inclusion of Spin-Gen, Non-BM Fast Reserve and Non-Tendered Fast Reserve actions into the calculation of the Imbalance Price and extension of the cash-out price arrangements to Fast Reserve'

This Modification Proposal seeks to include the price of Non-Balancing Mechanism (BM) Fast Reserve actions into the calculation of the Imbalance Price. The aim is to correct the calculation of the Imbalance Price; guarantee fair and harmonised treatment of all services; provide greater transparency.



The BSC Panel initially recommends **approval** of P371

This Modification is expected to impact:

- Trading Parties
- National Electricity Transmission System Operator (NETSO)

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## About This Document

This is the P371 Draft Modification Report, which ELEXON will present to the Panel at its meeting on 12 September 2019. It includes the responses received to the Report Phase Consultation on the Panel's initial recommendations. The Panel will consider all responses, and will agree a final recommendation to the Authority on whether the change should be made.

There are five parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, benefits/drawbacks and proposed implementation approach. It also summarises the Workgroup's key views on the areas set by the Panel in its Terms of Reference, and contains details of the Workgroup's membership and full Terms of Reference.
- Attachment A contains the draft redlined changes to the BSC for P371.
- Attachment B contains the full responses received to the Workgroup's Assessment Procedure Consultation.
- Attachment C contains the full responses received to the Panel's Report Phase Consultation.
- Attachment D contains the analysis into inclusion of non-BM Fast Reserve actions.

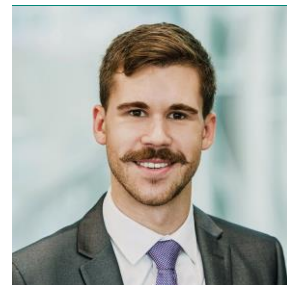


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### Why Change?

Non-Balancing Mechanism (BM) Fast Reserve actions are not included in the Imbalance Price calculations as these actions are not being included in the Balancing Service Adjustment Data (BSAD). The Proposer contends that in order to move towards an Imbalance Price which reflects the costs of all energy actions, the fair and harmonised treatment of all services, greater transparency and, ultimately, the National Electricity Transmission System Operator (NETSO)'s compliance with the BSAD obligation, non-BM Fast Reserve actions should be included in the Imbalance Price calculation.

### Solution

P371 proposes to require NETSO to include details of non-BM Fast Reserve actions in the BSAD file used in the Imbalance Price calculation, mirroring the treatment of other non-BM actions. This will allow the Imbalance Price to reflect non-BM Fast Reserve actions.

### Impacts & Costs

P371 will impact all **Trading Parties** and **NETSO**.

NETSO will be required to include details of non-BM Fast Reserve actions in the BSAD file for use in calculating the Imbalance Price.

Trading Parties will be impacted as P371 will ensure the Imbalance Price is reflective of instructed non-BM Fast Reserve actions.

The implementation effort required for NETSO to make the necessary changes is approximately 16 weeks, at a cost of £500k. There are no impacts on BSC Central Systems for P371.

### Implementation

The Panel initially recommends an Implementation Date for P371 of **25 June 2020** as part of the scheduled June 2020 BSC Release.

### Recommendation

The Panel unanimously believe that P371 will better facilitate Applicable BSC Objectives (a), (b), and (c) and therefore initially recommends P371 be **approved**. The Panel unanimously agreed that P371 is neutral against all other objectives. The Panel believes P371 should be sent to Ofgem for decision as it does not meet the Self-Governance criteria.

## 2 Why Change?

### Background

Imbalance Pricing (also known as 'cash out') is a key part of the wholesale trading arrangements in Great Britain. The wholesale electricity market is set up so that BSC Parties that require electricity for their customers (Suppliers) enter into contracts with organisations that produce electricity (Generators).

For any given Settlement Period (half hour trading period), Parties may trade with each other up to the start of the relevant Settlement period. However, Parties need to submit Physical Notifications for each Settlement Period so that the NETSO can understand the overall imbalance of the Transmission System. This is done at a point one hour beforehand, known as Gate Closure. At this point the PNs become Final Physical Notifications. After Gate Closure, Parties must try to adhere to the Final Physical Notifications submitted to NETSO. They should only deviate at the instruction of NETSO.

Parties will aim to balance their position for a given Settlement Period at this time such that the amount of energy they generate or buy matches the amount of energy they consume or sell. However, there are circumstances where this does not happen, such as a Generator experiencing an unexpected outage that does not allow them to generate the expected amount of energy, or a Supplier over, or under, estimating the amount of demand their customers actually use. This leaves the Party in a position of imbalance.

Following a Settlement Period, ELEXON will compare the volume of energy each Party contracted (traded) with its Metered Volumes, adjusted for any balancing actions. Any surplus or shortfall that the Party has is paid for using the Imbalance Price.

The System Sell Price and the System Buy Price are the 'cash-out' prices or 'Imbalance Prices' that are used to settle the difference between the contracted generation or consumption and the amount that was actually generated or consumed in each half hour trading period. These two types of cash-out prices are defined as follows:

- System Sell Price is **paid to** BSC Trading Parties who have a net surplus of imbalance energy (the Party generated or bought more energy than it consumed or sold); and
- System Buy Price is **paid by** BSC Trading Parties who have a net deficit of imbalance energy (the Party consumed or sold more energy than it generated or bought).

As there is a single price calculation; the two prices will be equal in each Settlement Period. These prices are designed to incentivise Parties to balance their position.

### Electricity Balancing Significant Code Review

In August 2012, Ofgem launched its [Electricity Balancing Significant Code Review](#) to look at Imbalance Prices, in order to address long-standing concerns that it had raised in 2010 within its [Project Discovery](#) report. In particular, Ofgem expressed concerns that imbalance prices were not creating the correct signals for the market to balance, which could increase the risks to future electricity security of supply and undermine balancing efficiency, unnecessarily increasing costs.

Upon completion of the review, the Authority issued a direction to NETSO to raise [P305 'Electricity Balancing Significant Code Review Developments'](#) to progress the outcomes.



#### Imbalance Pricing

The Imbalance Price is used to settle energy imbalance volumes. At the end of a Settlement Period, BSC Systems compare a Party's contracted (traded) volume with the metered volume of energy used in the Settlement Period. If a Party is in imbalance of its contracted volume, then it will be subject to imbalance charges.



#### Physical Notifications

A notification made by (or on behalf of) the Lead Party to the Transmission Company under the Grid Code as to the expected level of Export or Import, as at the Transmission System Boundary, in the absence of any Acceptances, at all times during that Settlement Period.

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## Modification P305

P305 aimed to address the fact that previous methods for pricing reserve costs into cash-out did not accurately reflect the real-time value of this reserve and excluded the cost of some reserve products altogether. As such, by including non-BM Short Term Operating Reserve (STOR) utilisation costs into the Imbalance Price calculation, cash-out prices were expected to be more reflective of NETSO's energy balancing costs. This was deemed important given the increasing usage of Non-BM STOR by NETSO. P305 introduced Reserve Scarcity Pricing (RSP).

### Reserve Scarcity Price

The RSP is a pricing mechanism designed to respond to system scarcity so that STOR actions better reflect prevailing market conditions. The RSP rises as the system gets tighter (i.e. the gap between available and required generation narrows).

The RSP is calculated for each Settlement Period as the product of a measure of system reliability called Loss of Load Probability and the Value of Lost Load.

For STOR actions, the RSP is compared to the Utilisation Price and the higher of the two is used to price the action. As STOR Utilisation Prices are predetermined this process allows the end price of the STOR action (RSP or Utilisation) to reflect prevailing market conditions.

### Short Term Operating Reserve

In addition to balancing actions called upon in the BM, NETSO can procure additional capacity. These additional sources of power are referred to as reserve. Most of the reserve that NETSO procures is called STOR.

NETSO procures STOR ahead of time via a competitive tender process. Under STOR contracts, availability payments are made to the balancing service provider in return for the capacity being made available during specific times (STOR Availability Windows). When STOR is called upon, NETSO pays for its use at a pre-agreed price (its Utilisation Price). Some STOR is dispatched in the BM (BM STOR) while some is dispatched outside the BM (non-BM STOR).

### Fast Reserve

Fast Reserve provides rapid and reliable delivery of active power through increasing output from generation or reducing consumption from demand sources.

Similarly to STOR, Fast Reserve is contracted from providers in advance of delivery. The availability of capacity is procured at a pre-agreed utilisation price, which risks not reflecting the value of such capacity to the market at times of scarcity. Fast Reserve provides a smaller volume but in quicker timescales compared to STOR.

### System v Energy Balancing

There are two types of balancing actions. Energy imbalance actions address overall mismatches between generation and demand at a national level across the Settlement Period as a whole. System imbalance actions tackle local or regional constraints in the



#### Fast Reserve

Fast Reserve is an energy balancing service used to control frequency changes that might arise from sudden, and sometimes unpredictable, changes in generation or demand. The service is open to Balancing Mechanism (BM) and Non-BM providers.

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capacity of the transmission network, or short-term variations between demand and supply within a Settlement Period.

NETSO is required to determine which balancing services should be classified as SO-Flagged i.e. System Actions. The System Management Action Flagging Methodology Statement classifies System Management as:

- any balancing service used by NETSO that partially or wholly resolves a transmission constraint;
- any system-to-system balancing service used by NETSO in respect of electricity flows over an interconnector, to avoid adverse effects arising on the National Electricity Transmission System from significant load profile changes;
- any system-to-system balancing service used by a Transmission System Operator other than NETSO, for the purposes of resolving a system operation issue in a connected transmission system;
- any balancing action used to despatch Supplemental Balancing Reserve for the purposes of testing the service whether through or outside the Balancing Mechanism;
- any balancing action used by NETSO primarily to manage the Rate of Change of Frequency or to manage Fault Levels;
- any automatic Low Frequency Demand Disconnection relay demand control action.

## What is the issue?

Non-BM Fast Reserve actions are not included in the Imbalance Price calculation as these actions are not being included in the BSAD file. The Proposer and the Proposer contends that in order to move towards an Imbalance Price, which reflects the costs of all energy actions, the fair and harmonised treatment of all services and provides greater transparency; non-BM Fast Reserve actions should be included in the Imbalance Price calculation.

## Non-Tendered Fast Reserve

The Proposer recognises that the inclusion of availability fees, paid by NETSO to balancing service providers, in the Imbalance Price has the potential to be a complex issue. As such the Proposer intends to investigate this issue in a separate BSC [Issue 83 'Ensuring that the Buy Price Price Adjustment reflects all additional balancing costs incurred by NGESO'](#) so that the benefits of including non-BM Fast Reserve actions in the Imbalance Price can be realised more quickly.

### Proposed solution

This Modification Proposal aims to correct the Imbalance Price, making it more reflective of the costs incurred by NETSO in balancing the Transmission System by including non-BM Fast Reserve actions into the calculation of the Imbalance Price.

Under the P371 solution, NETSO will begin including data on non-BM Fast Reserve actions taken in the BSAD file. These actions will not be identifiable as Fast Reserve actions, and so will be treated and reported on the Balancing Mechanism Reporting Service in the same manner as all other actions in the BSAD (with the exception of non-BM STOR, which is separated out via a 'STOR' flag).

This Modification aims to make it clear to NETSO when developing future Balancing Services and associated systems that all energy actions should flow through into the Imbalance Price calculation.

This solution does not include spin-gen or Non-Tendered Fast Reserve. The Proposer recognises that the inclusion of these actions requires further consideration. Therefore to avoid further delays. They were removed from the solution.

### Legal text

The proposed solution will require changes to [BSC Section Q 'Balancing Services Activities'](#), and [Section X-1 'General Glossary'](#). The redlined changes can be found in Attachment A.

### Are there any (other) alternative solutions?

The P371 Workgroup considered an alternative solution that built upon the above solution. In the alternative solution, the BSAD file would be amended to contain a flag identifying Fast Reserve Actions. This would mean that Fast Reserve actions would be identifiable and so would be separated out for reporting purposes on Balancing Mechanism Reporting Service. The Alternative solution discussed by the Workgroup would replicate the treatment of STOR actions for Fast Reserve actions. The Workgroup believed that the additional benefits of this solution did not outweigh the additional costs (of approximately £1.4m), or merit a delay to implementation, and so did not choose to raise this as an alternative solution. Uncertainty over the use of non-BM balancing services was also a major concern for the Workgroup, adding to the desire to implement the solution as soon as possible. See Section 6 for further details. Respondents to the Assessment Consultation agreed with the Workgroup that there was no Alternative Solution that was better than the Proposed Solution.

### Estimated central implementation costs of P371

The implementation effort required for NETSO to make the necessary changes is estimated by NETSO to be approximately 16 weeks, at a cost of £500k. There are no impacts on BSC Central Systems for P371. ELEXON's costs to implement the P371 solution are approximately £240 to implement the document changes to the BSC.

### Indicative industry costs of P371

There are no direct costs or impacts to industry participants as a result of P371. No respondents to the Assessment Procedure Consultation identified any costs they would incur.

### P371 impacts

#### Impact on BSC Parties and Party Agents

Party/Party Agent	Impact
All Parties	All Trading Parties are affected by the Imbalance Price as it affects Trading Charges. A change in the Imbalance Price will also affect non BSC Parties as Trading Parties may choose to alter their Trading behaviour in response to the Imbalance Price.

#### Impact on National Electricity Transmission System Operator

As part of the solution NETSO will be required to start sending ELEXON information on non-BM Fast Reserve Balancing Actions. These actions will not be differentiable from other actions in the BSAD file. The NETSO will deliver its required system changes with a lead time of 16 weeks, at a cost of £500k.

#### Impact on BSCCo

Area of ELEXON	Impact
Release Management	ELEXON will be required to implement this Modification.

#### Impact on BSC Settlement Risks

Risk 28 – If implemented, P371 will alter the data provided by NETSO through the BSAD file. There will therefore be an impact on the risk that NETSO provide inaccurate or incomplete data. This risk currently exists. P371 does not introduce a new risk but as there will be an increase in the quantity of data being provided the risk arguably increases. This will be managed through rigorous testing during implementation to ensure that the correct data is being provided from NETSO to ELEXON.



Impact on BSC Systems and process	
BSC System/Process	Impact
N/A	No BSC Central System changes will be required to implement P371.

Impact on BSC Agent/service provider contractual arrangements	
BSC Agent/service provider contract	Impact
None	N/A

Impact on Code	
Code Section	Impact
BSC Section Q 'Balancing Services Activities'	Changes will be required to state that non-BM Fast Reserve Actions will be included in the BSAD file sent to Settlement Systems. Draft legal text can be found in Attachment A.
BSC Section X Annex X-1 'General Glossary'	

Impact on Code Subsidiary Documents	
CSD	Impact
None	N/A

Impact on other Configurable Items	
Configurable Item	Impact
None	N/A

Impact on Core Industry Documents and other documents	
Document	Impact
Ancillary Services Agreements	No impacts identified.
Connection and Use of System Code	
Data Transfer Services Agreement	
Distribution Code	
Distribution Connection and Use of System Agreement	
Grid Code	

#### Impact on Core Industry Documents and other documents

Document	Impact
Master Registration Agreement	
Supplemental Agreements	
System Operator-Transmission Owner Code	
Transmission Licence	
Use of Interconnector Agreement	

#### Impact on a Significant Code Review or other significant industry change projects

There is no identified impact on any open Significant Code Reviews. The Authority confirmed that P371 was not in the scope of any ongoing reviews on 11 September 2018.

#### Impact on Consumers

This Modification will not alter the principles of Balancing and Settlement and so the Workgroup does not envisage any impact on consumers.

#### Impact on the Environment

This Modification will not alter the principles of Balancing and Settlement and so the Workgroup does not envisage any impact on the environment.

### Recommended Implementation Date

Where a decision is received by 31 December 2019, The Panel initially recommends an Implementation Date for P371 of:

- **25 June 2020** as part of the June 2020 BSC Release.

Based on NETSO's implementation lead times of 16 weeks provided in its Impact Assessment, this is the next available release that P371 can be included in.

### Implementation Date interactions with P344 'Project TERRE'

NETSO reported that they would not be able to start work on P371 until [P344 'Project TERRE'](#) was implemented. Based on the current baseline, Project TERRE is due to be delivered in December 2019, as such, the earliest work would start on P371 is expected to be January 2020. This would enable delivery of P371 as part of the June 2020 BSC Release.

At its fourth meeting, the Workgroup noted NETSO's consultation response describing the interaction between P371 and TERRE delivery and that NETSO had requested a delay to the TERRE Implementation Date, intending to deliver the solution for June 2020. In its consultation response, NETSO commented that due to the same systems being impacted by TERRE and P371, if the delay is granted by Ofgem, then it is also likely that NETSO would request an extension to the implementation of P371.

The Workgroup agreed that as the baseline was for TERRE to be delivered in December 2019, and that any delay to TERRE would not affect the Wider Access to the BM due to be delivered in December 2019. The Workgroup also acknowledged that, should Ofgem grant NETSO a delay to the TERRE go-live date, NETSO may subsequently request an extension to the P371 Implementation Date. In absence of a firm decision from Ofgem on the TERRE go-live date, the Workgroup (by majority) and Proposer agreed to recommend an Implementation Date of 25 June 2020.

The Proposer initially commented that they would prefer the Modification to be implemented on 1 April 2020 to align with the implementation of [P354 'Use of ABSVD for non-BM Balancing Services at the metered \(MPAN\) level'](#), but agreed the June 2020 Release was a pragmatic approach based on the Impact Assessment and market participant consultation responses.

### Self-Governance

The Panel initially unanimously agreed that P371 should not be progressed as a Self-Governance Modification as it will impact on the Self-Governance Criteria by affecting competition as it will have the potential to alter the Imbalance Price, paid by Parties that are out of balance. Respondents to the Assessment Procedure Consultation unanimously agreed that the Modification should not be progressed as Self-Governance.



#### What are the Self-Governance criteria?

A proposal that, if implemented:

- a) is unlikely to have a material effect on:
  - i. existing or future electricity consumers; and
  - ii. competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; and
  - iii. the operation of the national electricity transmission system; and
  - iv. matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and
  - v. the Code's governance procedures or modification procedures; and
- b) is unlikely to discriminate between different classes of Parties

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The Workgroup considered the potential impacts of including additional actions taken by NETSO and how this would be reflected in the Imbalance Price. The Workgroup noted that Modification P305 'Electricity Balancing Significant Code Review Developments', which included non-BM STOR actions in the Imbalance Price through the BSAD file, did not specifically state that Fast Reserve actions should not be included in the BSAD. The Proposer contended that NETSO should already be including these actions in the data provided to ELEXON, believing them to fall under 'relevant balancing actions'.

### Futureproofing of a solution

The Workgroup considered how any solution could be futureproofed. It noted that with the developments of Project TERRE and Manually Activated Reserve Initiative (MARI), there was likely to be a significant reduction in the usage of bilateral balancing services. However, it determined that reserve contracts represent a substantial proportion of contracted capacity and therefore a solution was relevant, regardless of the unknown, potential change in the usage of bilateral balancing services.

The Workgroup also acknowledged that NETSO had indicated<sup>1</sup> the need to maintain specific GB reserve products, such as Fast Reserve, reinforcing the argument that P371 solution should be implemented. In addition, the Workgroup commented that all balancing actions should be reported (rather than just specifically named actions within the code).

NETSO suggested that P371 could be used to establish principles, so that a more streamlined Self-Governance Modification could be used to further extend the scope of the Imbalance Price calculation. It was noted that P371 or the BSC does not preclude NETSO including Demand Turn Up and other relevant actions.

The Workgroup questioned how long NETSO expected to continue using non-BM actions, particularly Fast Reserve. NETSO responded that it expected to move away from 'route to market' descriptions of services (such as BM and non-BM) In its response to the Assessment Consultation, it confirmed that non-BM providers use assets connected to the distribution network and these assets will continue to be an important part of the Balancing Services strategy.

### Separability of reported actions

The Workgroup considered how any Fast Reserve actions included under the P371 solution should be reported to industry. It questioned whether Fast Reserve actions should have a bespoke 'FR' flag reported against them. Doing so would allow actions to be separated out from other actions on the BSAD file and reported separately on Balancing Mechanism Reporting Service. It is also a pre-requisite for the comparison to be made between the Utilisation Price and RSP. The Workgroup questioned whether a new flag would be required, or whether an existing flag could be amended to capture this detail – such as repurposing the STOR flag as an RSP flag.

<sup>1</sup> <https://www.nationalgrideso.com/codes/european-network-codes/meetings/consultation-ebgl-article-26-requirements-specific-products>

## Similarity to STOR

The Workgroup considered whether Fast Reserve actions should be treated in the same way as STOR actions, with a bespoke flag. It noted that ELEXON validates STOR flags by comparing the actions to the availability window. While STOR availability windows are aligned, this was not the case for Fast Reserve. The Workgroup questioned the value of the validation exercise, noting that NETSO has auditable processes for ensuring the integrity of data. It commented that by removing the validation exercise, a generic 'RSP flag' could be applied to multiple categories of action. The Workgroup concluded that a solution that created a generic flag would not create sufficient benefit over the other possible solutions. In doing so, it noted that the RSP was rarely used to reprice actions in practice, meaning the value of including this would be limited, and that removing the bespoke STOR flag would reduce the granularity of available data.

## Analysis

ELEXON presented its analysis into how inclusion of non-BM Fast Reserve actions in the Imbalance Price calculation would affect the cash-out price. The Workgroup noted the three main findings:

- In the majority of cases, impact on the Imbalance Price was minimal ( $>£1/\text{MWh}$ ), though in a small number of instances reached as much as  $£70/\text{MWh}$ ;
- No significant impact on the accuracy of the NIV by including Fast Reserve actions in the calculation; and
- In a small number of cases, the flip in the direction of the NIV did not match the true market length, but this defect will be addressed by the implementation of P354 in April 2020.

The Workgroup noted that in the period looked at in the analysis, non-BM Fast Reserve actions would have been marginal in setting the Imbalance Price in just 114 Settlement Periods. The Proposer contended that even if the impact on Imbalance Price was small, exclusion of these actions from the calculation was against the principles in the market arrangements and that this should be addressed to improve transparency and reflectivity.

The Workgroup noted that the analysis presented a 'worst case' scenario as it had not been able to consider which actions would have been flagged as System Balancing actions.

## Accuracy of the Net Imbalance Volume (NIV)

The Workgroup considered that while the impact of Fast Reserve actions on the cash-out price was unknown, there may be a more pronounced impact on the NIV by excluding these actions and associated volumes. A Workgroup member commented that while the change to the NIV might not always be significant, there was the possibility that exclusion of Fast Reserve actions could make a short market appear long, which would impact all Trading Parties. This would reverse the direction of payments made by or to Parties, effectively doubling the impact.

ELEXON showed the Workgroup analysis that indicated that the NIV reflects the true market length with a high degree of correlation. The Workgroup noted that the analysis showed that the inclusion of Non BM Fast Reserve affected a small number of Settlement Periods, flipping the NIV in an opposite direction from Parties position. It was explained



### What is NIV?

NIV is the net imbalance volume (in MWh) of the total system for a given Settlement Period. It is derived by netting Buy and Sell Actions in the Balancing Mechanism. Where the NIV is positive, the system is short.

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that this affect may be due to the recent use of Non BM STOR and its effect on Parties volumes, which will be addressed by P354.

The Workgroup believed that although the impact of Fast Reserve on the Imbalance Price may look minimal, this may change in future as it expected the use of Fast Reserve to increase, and concluded that it was important to include Non BM Fast Reserve actions.

## Solution options

The Workgroup were presented potential solutions. Option 1 would require NETSO to provide details of non-BM Fast Reserve actions on the BSAD file, thus allowing it to be reflected in the Imbalance Price calculation. Option 2 would require NETSO to provide this data and also amend the BSAD to flag Fast Reserve actions so that they could be separated for reporting purposes, and considered for repricing under the RSP process. The Workgroup considered a third option including a generic RSP flag. This would allow actions to be considered for repricing, but not granular reporting of actions as in option 2.

The Workgroup commented that solution option 1 would address the defect in a simple and effective manner, which it expected to be implemented quicker than the alternative. It therefore commented that the additional benefit realised by the more complex option would need to outweigh the cost and time requirements.

The Workgroup noted that the second solution option, including a 'Fast Reserve' flag, would allow Fast Reserve actions to be considered for repricing by the RSP. It noted that the RSP was rarely used and so would need to consider whether the benefit of this would be realised effectively as well as confusions that the RSP may have with the Electricity Balancing Guidelines. The Workgroup considered whether a generic flag could be used rather than a bespoke 'Fast Reserve' flag, but did not see that it would provide any additional benefit, and thought it could risk reducing the integrity of data.

The Workgroup requested Impact Assessments from NETSO and ELEXON's service providers to better understand the development required for the options so that it could make an informed decision on its preferred solution.

Following the Impact Assessment, NETSO proposed a potential third option to help it understand the appetite for a new Modification as it would require a lot more thought before it could be implemented. The proposal was to build on option 2 and create a generic BSAD interface between NETSO and BSCCo systems, allowing balancing services to be added and removed without needing to amend the data file. Instructed volumes would be provided in near-real time and allow reporting on each balancing service.

The Workgroup commented that the creation of a means for publishing more general balancing data was beyond the scope of P371 and that it would expect NETSO to further investigate this under its forward looking plan. A Member believed the market would adopt Secondary BM Units such that specific non-BM balancing services would participate in the BM. He therefore questioned whether this option was the right one for the future. For these reasons, the P371 Workgroup did not wish to progress this under the Modification.

## Electricity Balancing Guidelines (EB GL) consideration

The Workgroup sought to ensure that any solution would comply with the EB GL to protect its longevity. The Workgroup noted that EB GL requires balancing to be done using the standard balancing products (TERRE and MARI) and approved specific products, which is

expected to include Fast Reserve. The Workgroup believed that EB GL does require the inclusion of all balancing actions in the calculation of Imbalance Prices as there are no clauses within Commission Regulation (EU) 2017/2195 which allows exempt particular Balancing actions not to be included. Therefore the inclusion of Fast Reserve would support the EB GL obligation.

The Workgroup also referenced the [Ofgem letter of 4 June regarding the Balancing Terms and Conditions for Article 18 of the Commission Regulation \(EU\) 2017/2195](#). In this letter Ofgem asked NETSO to either remove the provisions that set fixed prices for utilisation of those services from the Article 18 of EB GL national terms and conditions, or submit a new Article 16.6 exemption request clearly outlining the higher economic efficiency for GB. The future of pre-determined prices is very important with regards to RSP, as the RSP process was introduced as part of P305 due to the defect that pre-determined and fixed STOR prices did not reflect scarcity and therefore did not reflect real time prices. If fixed prices have a limited life then the need for a RSP may also have a limited life. When assessing which option to select as the solution, the Workgroup considered the extra spend necessary to allow Fast Reserve actions to be compared to the RSP (Option 2) against the uncertainty over whether the current process would be enduring or time limited. A Workgroup Member noted that expected future work in this area may be better placed to introduce RSP when there is more certainty.

The Workgroup were keen to understand from NETSO if it intends to rely more and more on standard products and for specific products to be included in the BM, as this would have an important bearing on the longevity of the P371 solution. If non-BM balancing services will 'wither on the vine' in the short to medium term, there is little point in spending the extra money on option 2. On the other hand, if products such as non-BM Fast Reserve are here to stay, it would be worth spending the extra money on option 2, as this provides extra transparency and a more reflective signals as the non-BM Fast Reserve can be included in the RSP calculations.

Respondents to the Assessment Consultation noted the uncertainty around the longevity of non-BM products. NETSO commented that its strategic plan was yet to be defined, but that it expected distribution connected assets to continue being used for balancing.

## Spin gen payments

In addition to including non-BM Fast Reserve actions in the Imbalance Price calculation, the Proposer believed that availability payments made to Generators should also be captured. The Workgroup noted that warm up payments were included through the Buy Price Price Adjustment, but that as it was hard to map availability payments to the appropriate Settlement Periods where the service was used, it would be challenging to ensure these were truly reflective. It noted that payments were made when no energy was being delivered to the system, so it would not be possible to include these using the existing methodology. The Workgroup considered that even if no energy was delivered to the system, payments made were for reserve, and so these should be included.

Based on this, the Proposer agreed that considering how availability fees could be reflected was a significant piece of work and did not want to delay the benefits that could be realised by correcting the Imbalance Price calculation for non-BM Fast Reserve actions. As such the Proposer agreed that this should be the focus of the Modification, with availability fees being explored through a subsequent BSC Issue.





## Preferred solution

The Workgroup considered Impact Assessments undertaken by NETSO and ELEXON's service providers. It considered that while solution option 2 would provide greater transparency and data available to market participants, it did not believe that these benefits outweighed the additional costs (and implementation times), given the uncertainty over the future of non-BM balancing services.

Workgroup Members expressed surprise at the NETSO costs required to deliver the simpler option 1 (and option 2), and questioned whether a breakdown of costs could be provided, to elaborate on the cost provided in the impact assessment. Some Workgroup Members argued that from a principle based approach, option 2 was the right thing to do, but agreed that a pragmatic approach should be taken.

## Workgroup views

At its fourth meeting, the Workgroup considered the responses to its Assessment Procedure Consultation. The Workgroup noted that there may be delays to the P371 implementation (due to TERRE potentially being delayed), but concluded that there was sufficient longevity in the solution for the benefit to still be realised. One Member expressed concern that the delivery of P371 appeared conditional on the implementation of TERRE from a NETSO system perspective. The Workgroup noted that, if the TERRE go-live date extension was approved by Ofgem, NETSO could request an extension to the Implementation Date of P371 with justification, or Ofgem could direct a later Implementation Date to align to a decision to delay TERRE go-live.

The Workgroup unanimously agreed that P371 should not be progressed as a Self-Governance Modification and unanimously agreed the draft legal text delivered the intent of P371. The Workgroup agreed by majority with the Proposer of the recommended implementation date of 25 June 2020, as part of the June 2020 BSC Release.

## Applicable BSC Objectives

Does P371 better facilitate the Applicable BSC Objectives?		
Obj	Proposer's Views	Other Workgroup Members' Views
(a)	• Positive	• Neutral ( <i>unanimous</i> )
(b)	• Positive	• Positive ( <i>majority</i> ) • Neutral ( <i>minority</i> )
(c)	• Positive	• Positive ( <i>unanimous</i> )
(d)	• Positive	• Neutral ( <i>majority</i> ) • Positive ( <i>minority</i> )
(e)	• Positive	• Neutral ( <i>unanimous</i> )
(f)	• Neutral	• Neutral ( <i>unanimous</i> )
(g)	• Neutral	• Neutral ( <i>unanimous</i> )

### What are the Applicable BSC Objectives?

(a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence

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

(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

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

(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]

(f) Implementing and administering the arrangements for the operation of contracts for difference and arrangements that facilitate the operation of a capacity market pursuant to EMR legislation

(g) Compliance with the Transmission Losses Principle

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### Applicable BSC Objective (a)

The Proposer believes that the P371 solution better facilitates Applicable BSC Objective (a) as they perceive the change will address the existing non-compliance with the C16 (and BSAD methodology) requirements. The Proposer contends that although not explicitly listed in the methodology, NETSO should be including details of non-BM Fast Reserve. The Workgroup believed the impact would be neutral as it did not believe that NETSOs compliance with C16 was a matter for the BSC to address.

### Applicable BSC Objective (b)

The Proposer believes that the solution will make the cash out price more reflective of market conditions at times of scarcity, which will send sharper signals to market participants and consequently reduce the strain on the transmission system. The majority of the Workgroup agreed the P371 will better facilitate objective (b) for the reasons given by the Proposer. One Member did not believe that reflecting non-BM Fast Reserve actions in the Imbalance Price would affect the operation of the Transmission System and so believed the effect would be neutral.

### Applicable BSC Objective (c)

The Proposer believes that making the cash out prices more reflective of the actions taken by NETSO to balance the system will ensure consistent treatment of balancing services and therefore promote competition in the market. The Workgroup unanimously agreed that by including non-BM Fast Reserve actions in the Imbalance Price calculation it would be more reflective of market conditions and guarantee consistent treatment of different balancing service providers which would aid competition.

### Applicable BSC Objective (d)

The Proposer believes that including non-BM Fast Reserve actions on the cash out price will make it more reflective of the actions taken by NETSO, which will in turn promote competition and enhance efficiency in the BSC arrangements. One Workgroup Member agreed with the Proposer that P371 would better facilitate objective (d). The majority of Members agreed that the rationale provided by the Proposer was sound, but argued that it related to objective (c) rather than (d). As such, the majority of the Workgroup believed that P371 would be neutral against objective (d).

### Applicable BSC Objective (e)

The Proposer believes that by including non-BM Fast Reserve actions in the cash out price, the intent of the EB GL will be better reflected in the pricing calculation by ensuring that all energy balancing actions are reflected in the price. The Workgroup did not believe that the Modification would better facilitate objective (e). There were two main reasons for this: The Workgroup did not feel it had a deep enough understanding of the EB GL requirements to assess whether these were better facilitated by the proposal, and that given the lack of clarity around the exact requirements of EB GL, the Workgroup did not think that the Modification was relevant to this objective at this time. Further, the minority of Members believed that if there was a compliance issue with European legislation it was for NETSO to resolve.



#### What are the Self-Governance criteria?

A proposal that, if implemented:

- c) is unlikely to have a material effect on:
  - i. existing or future electricity consumers; and
  - ii. competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity; and
- iii. the operation of the national electricity transmission system; and
- iv. matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and
- v. the Code's governance procedures or modification procedures, and
- d) is unlikely to discriminate between different classes of Parties

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The Panel considered the Assessment Report at its meeting on 8 August 2019 ([293/05](#)).

### Proposed solution

One Panel member commented on the Workgroup's rationale for not raising the discussed Alternative Solution to P371, incorporating a flag to identify Fast Reserve actions. They commented that this would further enhance transparency of the BSAD, and believed that following a principled approach, the additional cost of delivering this solution was not significant. ELEXON responded that the Workgroup had considered the uncertain future of non-BM Fast Reserve and as such did not wish to considerably delay realising the benefit by opting for a more complex solution. The Panel Member believed that there was benefit in market participants being able to identify different actions in the BSAD and questioned whether there was a simpler way to make this visible. ELEXON commented that this had been asked of NETSO already.

A Panel member commented that although the Proposed solution would allow the benefits to be realised quicker than the other solutions considered, they believed that by not applying RSP to Fast Reserve actions, there was an inconsistent treatment between STOR and Fast Reserve. The Member noted that STOR actions are rarely repriced by the RSP, but argued that either both or neither should be subject to RSP to ensure consistency. It was noted that Fast Reserve actions, had they been included in the RSP, would likely trigger the RSP even less than STOR actions.

The Panel also discussed the expected benefits P371 would realise, especially given the P371 implementation costs. ELEXON commented that the Workgroup believed as a point of principle, including Fast Reserve actions in the imbalance price was the right thing to do. Including Fast Reserve actions would have a material impact on the Imbalance Price in around 2.4% of Settlement Periods, based on the historic analysis.

The Modification Secretary clarified that if the Panel wanted the Workgroup and NETSO to re-consider the solution options, it could send the Modification back to the Assessment Procedure, but noted that it was unlikely that any of the uncertainties around the future of non-BM Fast Reserve or RSP would change enough to provide clarity.

A Panel Member noted the significant costs required to implement either of the considered solutions and requested that NETSO provide transparency into how both the cost and lead time were calculated. They commented that they would like to see this as the norm for Modifications with significant costs associated.

### Legal Text

The Panel agreed that the draft redlined changes delivered the intent of P371 and provided no further comments on it.

### Applicable BSC Objectives

The Panel noted that rationale provided in the Assessment Report and agreed with the P371 Workgroup recommendations that P371 would better facilitate Applicable BSC Objectives **(b)** and **(c)** for the reasons given. Additionally, a Panel member commented

that NETSO's Roles and Responsibilities required it to provide accurate and transparent market data. They believed that P371 would therefore better facilitate objective **(a)**, to which the Panel unanimously agreed.

## Self Governance

The Panel noted the rationale provided in the Assessment Report and agreed with the P371 Workgroup that recommendation that P371 does impact on the Self-Governance criteria, and therefore **should not** be progressed as a Self-Governance Modification.

## Implementation Date

Panel Members expressed concern at the lead times provided by NETSO in its Impact Assessment. The Panel Members noted the overlap between systems impacted by the delivery of TERRE and P371, but queried why the TERRE solution would need to be delivered first rather than combining the required changes – particularly in the case where the Implementation of TERRE is delayed until June 2020.

The Panel also noted that the Wider Access project would be delivered in December 2019 regardless of the possible delay to TERRE. The Panel's understanding was that the same systems are needed to deliver both projects, and questioned why the P371 changes couldn't be built on to the Wider Access solution rather than needing to wait for TERRE, especially when NETSO have reported it is on track to deliver both in December 2019.

The Panel noted the recommended Implementation Date in the Assessment Report and agreed with the rationale given by the Workgroup.

## 9 Report Phase Consultation Responses

The Report Phase Consultation was issued on 13 August 2019 with responses due by 27 August 2019. Two responses were received, which are summarised below. You can find the full responses in Attachment C.

Summary of P371 Report Phase Consultation Responses				
Question	Yes	No	Neutral	Other
Do you agree with the Panel that the redlined changes to the BSC deliver the intent of P371?	2	0	0	0
Do you agree with the Panel's initial unanimous recommendation that P371 better facilitates applicable BSC Objectives (a), (b), and (c) and should therefore be approved?	2	0	0	0
Do you agree with the Panel's initial view that P371 should not be treated as a Self-Governance Modification?	2	0	0	0
Do you agree with the Panel's recommended Implementation Date?	2	0	0	0

Both respondents agreed with the Panel's initial view that the redlined changes delivered the intent of P371 and that the Modification should not be treated as a Self-Governance Modification for the reasons given by the Panel. Both respondents agreed with the proposed Implementation Date for P371, with one respondent noting that the Modification should be approved as soon as is practicable to maximise the benefit that could be realised from the change.

Both respondents also expressed concern over the conditionality of P371 implementation on delivery of the Project TERRE systems, and believed that doing so could set precedent for conditional implementation, which was not desirable

Both respondents agreed with the Panel that the Modification would better facilitate Applicable BSC Objectives (b) and (c) as it would make the Imbalance Price more reflective of market conditions and so enhance competition by also ensuring consistent treatment of service providers. One of the respondents also agreed that P371 would better facilitate Applicable BSC Objective (a) by enhancing the quantity of data available to the market. The respondent referred to [Ofgem's direction on the Electricity System Operator's financial incentive](#) where the Authority expressed its concern about the significant cost of balancing the system.

Both respondents provided additional comments where they reference the alternative solution discussed by the P371 Workgroup. Both noted that additional benefit that could have been derived from this solution, but agreed with the Workgroup that the additional cost and lead time outweighed this benefit.

## 10 Recommendations

We invite the Panel to:

- **AGREE** that P371:
  - **DOES** better facilitate Applicable BSC Objective (a);
  - **DOES** better facilitate Applicable BSC Objective (b); and
  - **DOES** better facilitate Applicable BSC Objective (c);
- **AGREE** a recommendation that P371 should be **approved**;
- **APPROVE** an Implementation Date of:
  - 25 June 2020, where a decision is received by 31 December 2019;
- **APPROVE** the draft legal text;
- **DETERMINE** (in absence of any Authority direction) that P371 is not a Self-Governance Modification Proposal; and
- **APPROVE** the P371 Modification Report.

### Workgroup's Terms of Reference

Specific areas set by the BSC Panel in the P371 Terms of Reference	Conclusion
Has the compliance with current Code obligations and EU Regulation been considered?	As it is likely that Fast Reserve Actions will be a specific product, they should be included.
Which Balancing Actions should be classed as System Balancing Actions?	The Workgroup noted that NETSO has auditable processes for categorising balancing actions.
Have the impacts and changes to System Prices (Energy Imbalance Price) Parameters been investigated?	The Workgroup was presented analysis as part of the Assessment Procedure.
What checks can be done to ensure that relevant actions have been correctly flagged?	NETSO advised that this is out of scope of the Modification as it is covered in the System Management Action Flagging.
How will the Balancing Services affected by this Modification change as part of National Grid's System Needs and Product Strategy?	It is probable that Fast Reserve products will continue to be used as a specific product. The proposed solution strikes a balance between ensuring future robustness and effort required to deliver.
Is it possible to future proof any solution for P371 against possible changes in name of existing Balancing Services as well as the potential creation of new Balancing Services and their associated Actions?	
What changes are needed to BSC documents, systems and processes to support P371 and what are the related costs and lead times?	The proposed changes to the BSC can be found in attachment A.
Are there any Alternative Modifications?	None were formally proposed
Should P371 be progressed as a Self-Governance Modification?	P371 is not a Self-Governance Modification
Does P371 better facilitate the Applicable BSC Objectives than the current baseline?	Workgroup views are summarised in Section 7.

### Assessment Procedure timetable

P371 Assessment Timetable	
Event	Date
Panel submits P371 to Assessment Procedure	11 September 2018
Workgroup Meeting 1	24 October 2018
Workgroup Meeting 2	13 February 2019
Workgroup meeting 3	5 June 2019
Assessment Procedure Consultation (15WD)	17 June 2019 – 5 July 2019
Workgroup Meeting 4	16 July 2019
Panel considers Workgroup's Assessment Report	8 August 2019

P371 Assessment Timetable	
Event	Date
Report Phase Consultation (10WD)	13 – 27 August 2019
Panel considers Draft Modification Report	12 September 2019
Final Modification Report sent to Authority	19 September 2019

## Workgroup membership and attendance

P371 Workgroup Attendance					
Name	Organisation	24 Oct 2018	13 Feb 2019	5 Jun 2019	16 Jul 2019
Members					
Lawrence Jones	ELEXON ( <i>Chair</i> )	✓	✓	✓	✗
Elliott Harper	ELEXON ( <i>Chair</i> )	✗	✗	✗	✓
Matthew Woolliscroft	ELEXON ( <i>Lead Analyst</i> )	✓	✓	✓	✓
Alessandra de Zottis	UK Power Reserve ( <i>Proposer</i> )	✓	✓	✓	✓
Adelle Wainwright	National Grid ESO	✓	✗	✗	✗
Aily Armour-Biggs	Global Energy Advisory	✗	☎	✗	✗
Andrew Russel	Engie	✓	✓	☎	☎
Andy Colley	SSE	☎	☎	☎	☎
Bill Reed	RWE	✓	✓	✓	☎
Ewen Ellen	SP	✓	☎	✗	☎
Grahame Neale	National Grid	✓	✗	✓	✓
Graz Macdonald	Green Frog	☎	☎	☎	✗
Josh Logan	Drax	✓	✓	✓	✓
Jon Wisdom	National Grid ESO	✗	✓	✗	✗
Lisa Waters	Waters Wye	✗	✓	☎	✗
Oli Xing	Orsted	✓	✗	✗	✗
Terry Carr	E.ON	✓	✓	✗	☎
Attendees					
Damian Clough	ELEXON ( <i>Design Authority</i> )	✓	✓	✓	✓
David Stephens	ELEXON ( <i>Lead Lawyer</i> )	✓	✗	✗	✗
Tina Wirth	ELEXON ( <i>Lead Lawyer</i> )	✗	✓	✓	✗
Emma Tribe	ELEXON ( <i>Market Operations</i> )	✗	✓	✗	✗

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## Appendix 2: Glossary & References

### Acronyms

Acronyms	
Acronym	Definition
BM	Balancing Mechanism
BSAD	Balancing Service Adjustment Data
EB GL	Electricity Balancing Guidelines
MARI	Manually Activates Reserves Initiative
NETSO	National Electricity Transmission System Operator (National Grid ESO)
NIV	Net Imbalance Volume
RSP	Reserve Scarcity Price
STOR	Short Term Operating Reserve
TERRE	Trans European Replacement Reserves Exchange

### External links

Hyperlinks		
Page	Description	URL
4	Electricity Balancing Significant Code Review on the Ofgem website.	<a href="https://www.ofgem.gov.uk/electricity/wholesale-market/market-efficiency-review-and-reform/electricity-balancing-significant-code-review">https://www.ofgem.gov.uk/electricity/wholesale-market/market-efficiency-review-and-reform/electricity-balancing-significant-code-review</a>
4	Project Discovery on the Ofgem Website	<a href="https://www.ofgem.gov.uk/publications-and-updates/project-discovery-status-report">https://www.ofgem.gov.uk/publications-and-updates/project-discovery-status-report</a>
4, 12	P305 on the BSCCo Website	<a href="https://www.elexon.co.uk/mod-proposal/p305/">https://www.elexon.co.uk/mod-proposal/p305/</a>
6	Issue 83 on BSCCo Website	<a href="https://www.elexon.co.uk/smg-issue/issue-83/">https://www.elexon.co.uk/smg-issue/issue-83/</a>
7	BSC Section X Annex X-1	<a href="https://www.elexon.co.uk/the-bsc/bsc-section-x-annex-x-1-general-glossary/">https://www.elexon.co.uk/the-bsc/bsc-section-x-annex-x-1-general-glossary/</a>
7	BSC Section Q	<a href="https://www.elexon.co.uk/the-bsc/bsc-section-q-balancing-services-activities/">https://www.elexon.co.uk/the-bsc/bsc-section-q-balancing-services-activities/</a>
11	P354 on the BSCCo Website	<a href="https://www.elexon.co.uk/mod-proposal/p354/">https://www.elexon.co.uk/mod-proposal/p354/</a>
11	P344 on the BSCCo Website	<a href="https://www.elexon.co.uk/mod-proposal/p344/">https://www.elexon.co.uk/mod-proposal/p344/</a>
18	Panel 293 on BSCCo Website	<a href="https://www.elexon.co.uk/meeting/bsc-panel-293/">https://www.elexon.co.uk/meeting/bsc-panel-293/</a>
12	Consultation on EBGL Article 26: Requirements for specific products	<a href="https://www.nationalgrideso.com/codes/european-network-codes/meetings/consultation-ebgl-article-26-requirements-specific-products">https://www.nationalgrideso.com/codes/european-network-codes/meetings/consultation-ebgl-article-26-requirements-specific-products</a>
14	Ofgem letter of 4 June regarding the Balancing Terms and Conditions	<a href="https://www.ofgem.gov.uk/system/files/docs/2019/06/article_18_final_decision_letter_-_04.06.2019.pdf">https://www.ofgem.gov.uk/system/files/docs/2019/06/article_18_final_decision_letter_-_04.06.2019.pdf</a>
20	Ofgem direction on ESO financial incentive	<a href="https://www.ofgem.gov.uk/electricity/wholesale-market/market-efficiency-review-and-reform/system-operator-incentives">https://www.ofgem.gov.uk/electricity/wholesale-market/market-efficiency-review-and-reform/system-operator-incentives</a>

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