


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






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|----|---------------------------|
| 01 | Modification |
| 02 | Workgroup Report |
| 03 | Draft Modification Report |
| 04 | Final Modification Report |

Purpose of Modification: This Modification Proposal aims extend the scope of the cash-out price arrangements introduced by the Electricity Balancing Significant Code Review (EBSCR) and include the price of Non-Balancing Mechanism (BM) Fast Reserve, Non-Tendered Fast Reserve and Spin Gen¹ 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 which cost should be included; provide greater transparency and, ultimately, ensure National Grid’s compliance with the Balancing Services Adjustment Data Methodology Statement (BSAD).

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|  | <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 13 September 2018. The Panel will consider the Proposer’s recommendation and determine how best to progress the Modification.</p> |
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¹ Non-Tendered Fast Reserve services (or Optional Services) refer specifically to Optional Spin-Gen which National Grid procures via bilateral agreements. See reference at page 32 of the Monthly Balancing Services Summary 2018/19. Available here: https://www.nationalgrid.com/sites/default/files/documents/MBSS_July_2018.pdf

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|  | <p>High Impact:</p> <p>Generators</p> <p>Non-Physical Traders</p> <p>Suppliers</p> <p>Transmission Company</p> |
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| Timetable | | |
| The Proposer recommends the following timetable: | | |
| Initial consideration by Workgroup | October 2018 | |
| Assessment Procedure Consultation | January 2019 | |
| Workgroup Report presented to Panel | 14 March 2019 | |
| Report Phase Consultation | March 2019 | |
| Draft Modification Report presented to Panel | 11 April 2019 | |
| Final Modification Report submitted to Authority | 18 April 2019 | |

1 Summary

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 such that Balancing and Settlement Code (BSC) Parties enter into bilateral contracts with each other in order for Generators to be able to sell the energy they produce on to Suppliers to supply their customers.

For any given half hour Settlement Period, Parties may trade with each other up to the start of the relevant Settlement period. However Parties need to submit notifications (Physical Notifications) for each half hour trading period (known in the BSC as a Settlement Period) so that the Electricity System Operator (ESO) can understand the overall imbalance of the Transmission System. This occurs one hour beforehand at a period known as Gate Closure. At this point the Physical Notifications (PNs) become Final Physical Notifications (FPNs). After Gate Closure, Parties must attempt to adhere to the FPNs submitted to the SO. They should only deviate from their FPN at the instruction of the ESO.

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 the end of a Settlement Period, ELEXON will compare the amount of energy each Party contracted with its actual metered volumes for the Settlement Period, accounting for any balancing actions. Any surplus or shortfall that the Party has is paid for using the relevant imbalance price:

- If the Party is short (having consumed or sold more energy than it generated or bought) then it pays for its shortfall at the System Buy Price (SBP).
- If the Party is long (having generated or bought more energy than it consumed or sold) then it is paid for its surplus at the System Sell Price (SSP).

In August 2012, Ofgem launched its [Electricity Balancing Significant Code Review \(EBSCR\)](#) 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 are 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.

Ofgem published its Final Policy Decision on 15 May 2014. Its final decision document lays out its conclusions and builds on the extensive analysis and stakeholder engagement it has conducted during the EBSCR.

What is the issue?

Currently, Non-BM and Non Tendered Fast Reserve actions are not included in the Imbalance Price calculations. The Proposer contends that in order to guarantee a correct calculation of the Imbalance Price, fair and harmonised treatment of all services, greater transparency and, ultimately, National Grid's (NG's) compliance with the Balancing Services Adjustment Data (BSAD) obligation; the aforementioned Fast Reserve actions should be included in the Imbalance Price calculation. The current calculation of the Imbalance Price is sending incorrect messages to the industry and distorting the market signal, this lack

of transparency is potentially impacting the behaviour of Market Participants, effecting costs for end consumers. National Grid should therefore send the correct signal to the market to inform participants about the constraint and the required level of capacity.

The incorrect calculation is also the result of BM STOR units that are also instructed to provide Spin-Gen in addition to holding BM STOR commitments on the same capacity/unit within the same availability window.

The Proposer contends that there is no reason for a different treatment of Reserve products and Non BM Fast Reserve should have been captured already in the calculation of the Imbalance Price via the BSAD and via the Reserve Scarcity Price (RSP) methodology. This Modification is about Non BM Fast Reserve, however the implementation of this modification will remove any potential ambiguity and make it clear to the Electricity System Operator, when developing future Balancing Services and associated systems that all Actions should flow through into the Imbalance Price calculation.

What is the proposed solution?

This Modification Proposal aims to further contribute to correct the Imbalance Price, which is the result of an incorrect calculation as Fast Reserve (FR) actions (Non-BM as well as Non-Tendered FR) have not been included.

The proposed solution is to:

- Include Non-BM Fast Reserve and Non-Tendered FR (Spin-Gen) actions into the calculation of the Imbalance Price.
- Extend the application of the Reserve Scarcity Price (RSP) calculation methodology to Fast Reserve.

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

In addition, following a discussion with National Grid, the inclusion of other services, namely Demand Turn Up (DTU), could be considered by the Workgroup as part of this Modification.

2 Governance

Justification for proposed progression

This Modification should not be progressed as a Self-Governance Modification, as it does not meet the Self-Governance criteria. It should be presented to the Authority for decision as the implementation of this Modification will have a material impact on:

- the operation of the national electricity transmission system; and
- the competition in the generation, distribution, or supply of electricity or any commercial activities connected with the generation, distribution, or supply of electricity.

Requested Next Steps

This Modification should:

- Be assessed by a Workgroup and submitted into the Assessment Procedure.

This Modification aims to guarantee fair and harmonised treatment of Reserve products and will capture the value provided by Fast Reserve to the system. The wide-ranging implications of this Modification, and the material effects on BM and Non-BM providers, imply that it requires a Workgroup assessment.

3 Why Change?

What is the issue?

Currently, Spin-Gen, Non-BM and Non-Tendered Fast Reserve actions are not included in the Imbalance Price calculations. The Proposer contends that in order to guarantee a correct calculation of the Imbalance Price, fair and harmonised treatment of all services, greater transparency and, ultimately, National Grid's compliance with the BSAD obligation; the aforementioned Fast Reserve actions should be included in the Imbalance Price calculation.

There also appears to be a lack of harmonised treatment between STOR and Fast Reserve actions. 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 during times of scarcity.

The defect that this Modification Proposal is trying to address is particularly exacerbated by two issues:

- Non-Tendered Fast Reserve actions represent the lion's share of the costs paid by the ESO for Reserve products but the costs of these actions are not transparent to the market and are not at present duly captured in the calculation of the cash-out price.
- Selected units (Spin-Gen units) are allowed to be in receipt of STOR and Spin-Gen payments simultaneously.

In addition to sending incorrect messages to the industry and distorting the market signal, this lack of transparency impacts the behaviour of market participants, with overall effects to the costs for end consumers.

EBSCR and P305

In 2014, to progress the reforms outlined by the Authority arising from the EBSCR, National Grid was directed by Ofgem to raise two Balance and Settlement Code (BSC) Modification Proposals. One of these is [P305 'Electricity Balancing Significant Code Review Developments'](#) which proposed to amend the defect identified in the calculation of cash-out prices.

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. P305 proposed a new methodology for pricing Reserve into the calculation of the Imbalance Price exclusively for Settlement Periods in BM and Non-BM STOR. By including these Utilisation costs into the cash-out calculation, cash-out prices were expected to be more reflective of the Electricity System Operator's (ESO's) energy balancing costs and would capture the value that this capacity is providing to the system at times of margin tightness. This was deemed important given the increasing usage of Non-BM STOR by the ESO. The Regulator was therefore keen on P305 being able to ensure

cash-out prices better reflect both the cost to consumers of energy imbalances and the value they offer in securing electricity supplies during tight margins.

If at the time the changes were limited to STOR because this was considered “the main source of reserve”, currently the GB balancing system has undergone a range of significant changes, including recent rationalisation and harmonisation of Reserve products.²

Inclusion of Non-BM Fast Reserve and Non-Tendered Fast Reserve actions into the calculation of the Imbalance Price

This new Modification Proposal aims to further correct the Imbalance Price and make it more reflective.

The Imbalance Price is indeed incorrect as a result of an incorrect calculation as Non-BM Fast Reserve (FR) actions and Non-Tendered FR prices have not been included.

One of the issues that this Modification Proposal seeks to address is the lack of inclusion of Non-BM FR actions and Non-Tendered FR prices into the calculation of the Imbalance Price by National Grid. This has led to an incorrect calculation of the Imbalance Price and has had an overall effect on the transparency of the process. These actions should be included as the Balancing Services Adjustment Data Methodology Statement (BSAD) states that all Energy Actions including Non-BM STOR should be included.

Section B, Paragraph 2 of the Balancing Services Adjustment Data Methodology Statement³ reads: “*Any relevant balancing service including Non-BM Short Term Operating Reserve (STOR) actions, taken outside the Balancing Mechanism, will be provided through BSAD as a Balancing Service Adjustment Action. For each balancing service provided as a Balancing Service Adjustment Action, the energy bought or sold in MWh and the cost paid for each service in £ will be included.*”

It therefore appears that there is no reason why Non-BM FR and Non-Tendered FR should not be included. Recent discussions with National Grid led to an understanding that the ESO has so far never included Non-BM FR actions (as well as Non-Tendered FR, which includes Spin-Gen payments) and is therefore not compliant with its licence obligation.

Although balancing actions less than 15 mins are flagged (based on CADL flagging) and, as such, do not affect the imbalance price, Non-BM FR actions longer than 15 minutes are not CADL flagged and should therefore be taken into account for the imbalance price unless they are flagged as an ESO action. However irrespective of being flagged as an ESO action the data should still be provided as discussed below.

² National Grid’s work on the Future of Balancing Services. Here: <https://www.nationalgrid.com/uk/electricity/balancing-services/future-balancing-services>

³ Latest version available here: https://www.nationalgrid.com/sites/default/files/documents/BSAD%20Methodology%20Statement%20v15_Effective%20from%201%20April%202018_0.pdf

System Balancing Actions

Some balancing actions are taken for non-energy, system management reasons. These are 'system balancing' actions. Examples of system balancing actions are:

- Actions that are so small in volume they could be the result of rounding errors (De Minimis Tagging);
- Actions which have no effect on the energy balancing of the System but lead to an overall financial benefit for the System Operator (Arbitrage Tagging);
- Actions taken for locational balancing reasons (ESO-Flagging); and
- Actions taken to correct short-term increases or decreases in generation/demand (CADL Flagging).

ELEXON use a number of processes to minimise the price impact of system balancing actions on the energy imbalance price calculation. They can be broadly grouped as:

- ESO Flagging – identifying balancing actions that are potentially system balancing. Once identified, ELEXON will use the classification process to decide if they are system or energy balancing;
- Classification – assessing the ESO Flagged balancing actions against the unflagged balancing actions. If a ESO Flagged Action is more expensive than any unflagged action (i.e. an Energy Balancing Action), then ELEXON removes its price from the calculation; and
- Tagging – completely removing both the price and volume of balancing actions so that no part is used in the final calculation.

If some Fast Reserve actions were classed as System Balancing Actions (in accordance with the SMAF methodology) it is still important that the volumes flow through to the Imbalance calculation even if the price does not. These extra volumes may be sufficient to turn a long market, short, and vice versa thus having a significant impact on the Imbalance Price.

Extension of the new cash-out price arrangements to Fast Reserve

In addition to these changes, this Modification Proposal also aims to address the lack of harmonised treatment between STOR and Fast Reserve and therefore extend the application of the Reserve Scarcity Price (RSP) calculation methodology to Fast Reserve. Repricing FR actions with RSP, if RSP is higher will guarantee fair and harmonised treatment of both Reserve products (STOR and FR) and will capture the value provided by FR to the system.

Similarly to STOR, Fast Reserve⁴ 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.

This Modification aims to guarantee a correct calculation of the imbalance price, fair and harmonised treatment of Fast Reserve whose cost should be included in the imbalance price, greater transparency and, ultimately, National Grid's compliance with the BSAD obligation.

⁴ Fast reserve is procured via a competitive monthly tender process. Once service providers succeed in the pre-qualification assessment and sign onto a framework agreement, they will be provided with a login to an electronic tender platform. Providers can then tender in for a single month or multiple months.

This change will also allow to fully capture the value provided by all types of Fast Reserve to the system, e.g. including Non-Tendered Fast Reserve (typical of Spin-Gen contracts). Capturing Spin-Gen payments in the calculation of the Imbalance Price, will make such price more reflective, ensuring data on prices and volumes awarded to individual Spin-Gen service providers is openly shared. National Grid spent ~£5m/month on Non-Tendered Fast Reserve in 2017 for availability (excluding utilisation via offers and bids)⁵, yet no data is provided on the prices or the volumes awarded to the individual service providers; These bilateral contracts are in fact signed outside of the scope of commercial procurement of ancillary services.

As Energy Actions feed into the calculation of the Imbalance Price and are potentially repriced via the RSP methodology (if the RSP is higher), increased transparency over Spin-Gen service will allow market participants to verify what service is called on, at which point in time, and would have an overall impact on market behaviour (which is the essential purpose of making the imbalance price spikier and more reflective).

The graphic below, grouping data from National Grid’s Monthly Balancing Services Summary (MBSS), highlights the disparity in spending between tendered and bilateral services. The stark contrast shown risks sending incorrect messages to the industry and distorts the market signal.

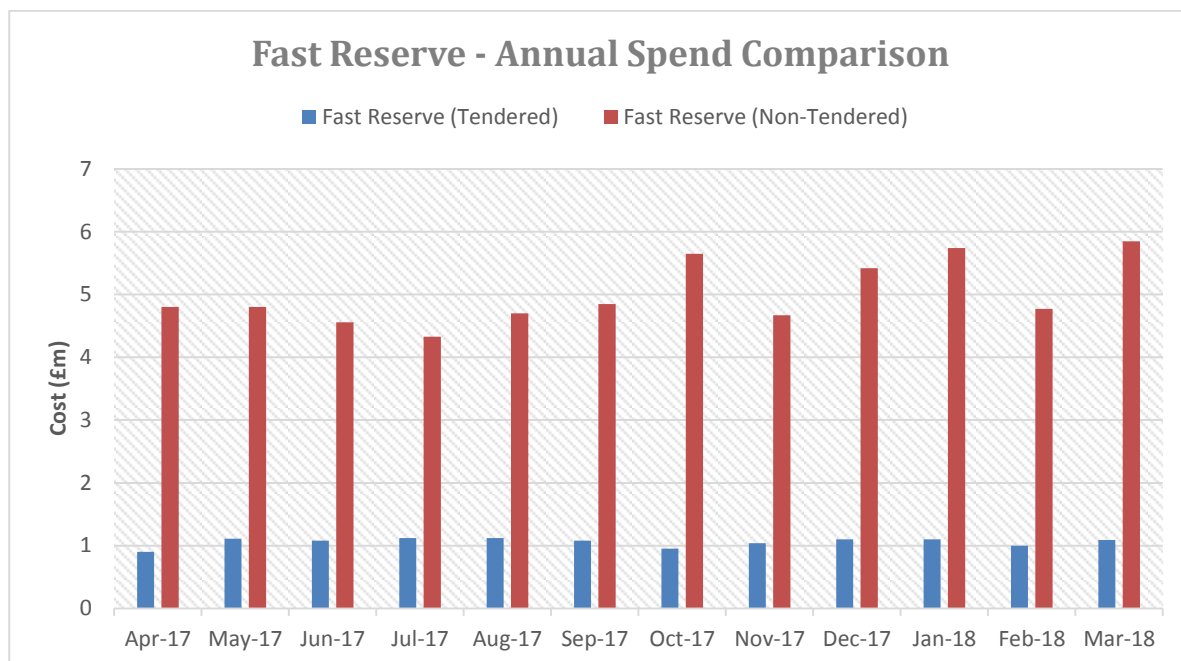


Table 1 Fast Reserve - National Grid's Annual Spend Comparison between Tendered and Non-Tendered Fast Reserve. Data compared by UKPR from data set in MBSS 2017/18

In addition to the above, as the Imbalance Price should truly reflect the costs of actions taken by National Grid, it becomes apparent that the increasing annual expenditure for Non-Tendered Fast Reserve actions represent the lion share of the costs paid by the ESO for Reserve products and should therefore be duly

captured in the calculation and made transparent to the market: National Grid's spending has increased from £51.86m in 2016/17 to £60.13m in 2017/18.⁶

Furthermore, observing NG's breakdown of Balancing Services Incentives Scheme (BSIS) costs, outturn for month for Spin-Gen amounted to £5.3m, far exceeding the monthly target of £2.8m.⁷ This should be therefore duly reflected in the Imbalance Price.

10.4 Detail BSIS Costs

| 2017-18 | | Outturn for Month | Target for Month | Latest Cost forecast for month | Initial Target forecast for month | Scheme to Date Total Cost | Scheme to Date Target Forecast | Scheme to Date Initial Target | Projected Total cost for Scheme (Cost Outturn + Latest Cost Forecast) | Projected Total Target for Scheme | Initial Target Forecast for Scheme |
|--------------------------|---------------------------------------|-------------------|------------------|--------------------------------|-----------------------------------|---------------------------|--------------------------------|-------------------------------|---|-----------------------------------|------------------------------------|
| Energy Imbalance | | 3.3 | 7.0 | -2.7 | 0.0 | -22.0 | 3.4 | 0.0 | -22.0 | 3.4 | 0.0 |
| | BM | 3.3 | 7.0 | -2.7 | 0.0 | -23.1 | 3.4 | 0.0 | -23.1 | 3.4 | 0.0 |
| | Forward Trade | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | SO-SO | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| Operating Reserve | | 15.9 | 10.6 | 7.2 | 0.0 | 92.2 | 88.6 | 0.0 | 92.2 | 88.6 | 0.0 |
| | BM | 11.3 | 8.3 | 2.6 | 0.0 | 55.3 | 62.0 | 0.0 | 55.3 | 62.0 | 0.0 |
| | Constrained Margin | 4.1 | 2.4 | 3.4 | 0.0 | 26.3 | 22.8 | 0.0 | 26.3 | 22.8 | 0.0 |
| | Forward Trade | 0.3 | -0.1 | 0.5 | 0.0 | 6.8 | 1.4 | 0.0 | 6.8 | 1.4 | 0.0 |
| | UTUV (Forward Trade) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Forward Constrained Margin | 0.2 | 0.0 | 0.7 | 0.0 | 3.0 | 0.9 | 0.0 | 3.0 | 0.9 | 0.0 |
| | SO-SO | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 1.3 | 0.0 | 0.1 | 1.3 | 0.0 |
| | SO-SO Constrained Margin | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.4 | 0.0 |
| | AS Demand Downturn | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 |
| | AS Capacity Contracts | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| BM Startup | | 0.1 | 0.2 | 0.3 | 0.0 | 1.2 | 2.6 | 0.0 | 1.2 | 2.6 | 0.0 |
| STOR | | 8.1 | 7.5 | 6.2 | 0.0 | 88.2 | 73.5 | 0.0 | 88.2 | 73.5 | 0.0 |
| | Standing Reserve | 0.2 | 1.4 | -2.3 | 0.0 | 2.6 | 15.8 | 0.0 | 2.6 | 15.8 | 0.0 |
| | AS - BM Reserve Option Fees | 4.9 | 3.3 | 4.8 | 0.0 | 38.2 | 32.8 | 0.0 | 38.2 | 32.8 | 0.0 |
| | AS - NBM Reserve Option Fees | 2.3 | 1.1 | 2.0 | 0.0 | 28.1 | 14.2 | 0.0 | 28.1 | 14.2 | 0.0 |
| | AS - NBM Reserve Utilisation | 2.6 | 2.0 | 1.7 | 0.0 | 21.6 | 11.9 | 0.0 | 21.6 | 11.9 | 0.0 |
| | AS - Supplemental Standing Reserve | -2.0 | -0.3 | 0.0 | 0.0 | -2.2 | -1.3 | 0.0 | -2.2 | -1.3 | 0.0 |
| Constraints | | 20.9 | | | | 374.3 | | | | | |
| | BM | 15.1 | 57.0 | 26.3 | 0.0 | 293.1 | 618.5 | 0.0 | 374.3 | 618.5 | 0.0 |
| | Forward Trade | 2.1 | | | | 42.7 | | | | | |
| | SO-SO | 0.0 | | | | 0.0 | | | | | |
| | AS - Intertrip and Constraints | 3.7 | | | | 38.5 | | | | | |
| Footroom | | 0.4 | 1.0 | 1.2 | 0.0 | 10.8 | 36.3 | 0.0 | 10.8 | 36.3 | 0.0 |
| | BM | 0.4 | 0.8 | 0.9 | 0.0 | 2.9 | 32.0 | 0.0 | 2.9 | 32.0 | 0.0 |
| | Forward Trade | 0.0 | 0.0 | 0.3 | 0.0 | 7.9 | 3.9 | 0.0 | 7.9 | 3.9 | 0.0 |
| | SO-SO | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.1 | 0.3 | 0.0 |
| Fast Reserve | | 8.8 | 6.6 | 7.0 | 0.0 | 97.3 | 81.9 | 0.0 | 97.3 | 81.9 | 0.0 |
| | BM | 1.4 | 2.4 | 2.8 | 0.0 | 15.9 | 24.0 | 0.0 | 15.9 | 24.0 | 0.0 |
| | AS - Firm Fast Reserve | 1.1 | 0.8 | 1.4 | 0.0 | 12.7 | 9.9 | 0.0 | 12.7 | 9.9 | 0.0 |
| | AS - SpinGen (not in sum total) | 5.3 | 2.8 | 2.0 | 0.0 | 52.3 | 39.9 | 0.0 | 52.3 | 39.9 | 0.0 |
| | AS - Fast Reserve (including Spingen) | 6.0 | 3.2 | 2.6 | 0.0 | 63.6 | 44.2 | 0.0 | 63.6 | 44.2 | 0.0 |
| | AS - Fast Start | 0.3 | 0.3 | 0.2 | 0.0 | 5.1 | 3.8 | 0.0 | 5.1 | 3.8 | 0.0 |

Table 2 Detail BSIS Costs FY 2017-18. Source: National Grid, Monthly Balancing Services Summary (MBSS) 2017/18

⁶ National Grid Procurement Guidelines Report FY 2017/18, Page 21. Available here: https://www.nationalgrid.com/sites/default/files/documents/Procurement%20Guidelines%20Report%2017_18.pdf

⁷ National Grid, Monthly Balancing Services Summary (MBSS) 2017/18, Page 40, Section 10.4. Available here: https://www.nationalgrid.com/sites/default/files/documents/MBSS_Mar_2018.pdf

Another issue which exacerbates the defect is that selected units (Spin-Gen units) are allowed to be in receipt of STOR and Spin-Gen payments simultaneously.

In addition to the data above, which is already sending incorrect messages to the industry and distorting the market signal, favouring a small number of units to receive both payments means that they are allowed to price their Reserve actions in a way that distorts competition. This contributes to impact the behaviour of market participants, with overall effects to the costs to end consumers. The Spin-Gen terms as historical commercial services agreements, were arranged on a bilateral basis due to a system requirement at that time.

Consistently with the work undertaken under P305, these actions should be duly captured in the calculation of the cash-out price and should be repriced so to reflect the real value of scarcity at time of system stress.

The Proposer believes that there is no reason for a different treatment of Reserve products, and Fast Reserve should have already been captured in the calculation of the Imbalance Price and in the RSP methodology. National Grid should therefore send the correct signal to the market to inform about the constraint and the required level of capacity, by recognising all the taken actions and removing the uneven playing field based on the technology type.

4 Code Specific Matters

Technical Skillsets

The assessment of this Modification Proposal requires knowledge in electricity balancing arrangements, imbalance pricing calculation, settlement arrangements, procurement of balancing services and electricity transmission licence provisions.

Reference Documents

- Balancing and Settlement Code, Section Q, 6.3.1 and 6.3.2
- Balancing Services Adjustment Data Methodology Statement, Part B, Paragraph 2
- C16 of the Transmission Licence

5 Solution

Proposed Solution

The proposed solution is to:

1. Include Non-BM Fast Reserve, Non-Tendered FR and Spin-Gen actions into the calculation of the Imbalance Price;
2. Extend the application of the RSP calculation methodology to Fast Reserve; and
3. For these changes below to take effect, specific reference to these actions could be included in BSC [Section Q](#). Codifying the requirement in the BSC removes any counter argument that data requirements and provision are not clear.

Enduring (long-term) solution:

The ideal solution would be for NG to put in place a (well-overdue) functioning automated system which allows FR actions to feed into the calculation of the imbalance price in real-time. National Grid shall endeavour to roll out such system as soon as possible and in a transparent way.

System changes from ELEXON's perspective will be required to allow the extension of the RSP calculation methodology.

Interim solution:

While such automated system and ELEXON's system changes are being developed, a manual process should be implemented, whereby NG's balancing team at the end of the day would download the list of FR actions from the day before and insert them in the BSAD model. National Grid shall endeavour to roll out such system as soon as possible and in a transparent way.

6 Impacts & Other Considerations

Impacts

This Modification will impact:

- Suppliers;
- Non-Physical Traders;
- the Transmission Company; and
- ELEXON

The Modification will also impact the Settlement Administration Agent (SAA) and the Balancing Mechanism Reporting Service (BMRS) systems.

As a minimum, we anticipate that changes will be required to BSC Section Q 'Balancing Mechanism Activities' and to the BSAD.

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

This Modification better facilitates the implementation of the Electricity Balancing Significant Code Review (EBSCR) by correcting a defect that should have been addressed already in that context.

This Modification will also contribute to a fair and enduring implementation of National Grid's work on the development of the Platform for Ancillary Services (PAS), by ensuring a higher degree of transparency and cost-reflectivity for all Ancillary Services providers.

At the time of submitting this proposal, the Authority is conducting three SCRs:

- [Switching](#);
- [Electricity Settlement](#); and
- [Targeted Charging Review](#).

We do not believe this Modification will impact any of the above SCRs. And as such, we request that this Modification be exempt from the SCR process.

Consumer Impacts

National Grid will be able to comply with their licence obligation to operate the system in a competitive way, and at the lowest costs to consumers by selecting the most competitive actions to balance the system. This will foster competition among providers and will ultimately result in the lowest cost to consumers.

Environmental Impacts

None identified.

7 Relevant Objectives

Impact of the Modification on the Relevant Objectives:

| Relevant Objective | Identified impact |
|--|-------------------|
| (a) The efficient discharge by the Transmission Company of the obligations imposed upon it by the Transmission Licence | <i>Positive</i> |
| (b) The efficient, economic and co-ordinated operation of the National Electricity Transmission System | <i>Positive</i> |
| (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 | <i>Positive</i> |
| (d) Promoting efficiency in the implementation of the balancing and settlement arrangements | <i>Positive</i> |
| (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] | <i>Neutral</i> |
| (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 | <i>Neutral</i> |
| (g) Compliance with the Transmission Losses Principle | <i>Neutral</i> |

The proposed modification would better facilitate Applicable BSC Objectives (a) (b) (c) and (d):

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

The proposed changes will address a current and persisting non-compliance issue of the ESO with the C16 Licence: according to the provisions in the BSAD, National Grid should already be sending FR pricing information to Elexon to include into the calculation of the Imbalance Price.

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

The proposed changes to the cash-out price calculation make prices more reflective of the value to consumers of balancing, particularly during times of very tight margins. In doing so, market participants will be incentivised to make more efficient balancing and investment decisions. This should result in reductions in the total costs (to the ESO and market) of maintaining a balanced system, whilst presenting savings on the costs of delivering secure electricity supplies in the future.

Making cash-out prices sharper will signal the commencement of reforms designed to better reflect the value of flexible plant in the balancing arrangements. It may therefore contribute to deferring the mothballing of flexible plant and help counteract potential tightening of margins.

The stepped nature of implementation should allow time for industry to adjust to the EBSCR reforms and to change behaviours accordingly.

(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 and

Reflecting the value that actions deliver supports effective competition by aligning competitive incentives of market participants with the interests of the consumer. The reforms eliminate distortions in the arrangements that currently impede value reflectivity, thereby supporting effective competition that drives value for the consumer.

Strengthening the energy imbalance price signal, through PAR reform, reserve scarcity pricing and introducing pricing for demand control, should incentivise market participants to trade to balance their positions ahead of Gate Closure. This should increase liquidity in the forward market and benefit competition by encouraging investment in flexible capacity (flexible generation, demand participation and other technologies).

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

The inclusion of a single imbalance price removes the existing inefficient price spread and for many market participants, in particular smaller parties who are less likely to drive the system length. This should reduce net imbalance costs and therefore help to mitigate the potential imbalance risk faced by market participants.

These reforms may alter the incentives for parties to enter the market. The reforms address existing inefficiencies which limit the potential for some parties, in particular those offering services that facilitate flexibility and balance (such as DSR or storage), to participate in the wholesale electricity market.

8 Implementation Approach

This Modification should be implemented as part of the first available BSC release following Authority decision, allowing for any lead time for implementation of changes to Systems identified during the Assessment Phase. As Proposer, we suggest that an implementation date of April 2020 to align with the implementation of P354 is the optimal implementation date.

9 Legal Text

We believe that appropriate legal text should be developed as part of the Assessment Phase of this Modification. However, it is anticipated that changes will be required to BSC Section Q 'Balancing Mechanism Activities'.

10 Recommendations

Proposer's Recommendation to the BSC Panel

The BSC Panel is invited to:

- Agree that P371 not be progressed as a Self-Governance Modification Proposal;
- Agree that P371 be sent into the Assessment Procedure for assessment by a Workgroup.