

Public

BSC Modification P305

Post-implementation review

20 July 2016
BSC Operations

ELEXON

Our analysis

- The **Post-Implementation Review of P305** provides data and analysis related to the first six months of P305
- It does not provide an assessment of whether P305 has been successful
 - No metrics for success defined – what is the 'efficient' level of balancing?
- We are also planning a 12 month review of P305, building on this analysis

P305 - Summary of views

Proposals to make imbalance prices 'more marginal'

For

- Reflecting the marginal action should lead to 'more efficient' market balancing
- Sharpens the signals of scarcity to the market, particular at times of tight margins
- Increase in liquidity ahead of Gate closure
- Improvements in cost-reflectivity will encourage investment, particularly in flexible capacity, driving long run cost savings

Against

- Volatile prices may cause participants to take longer positions to avoid the consequences of being short
- Detrimental effect on smaller participants

Removal of the dual cash-out price

For

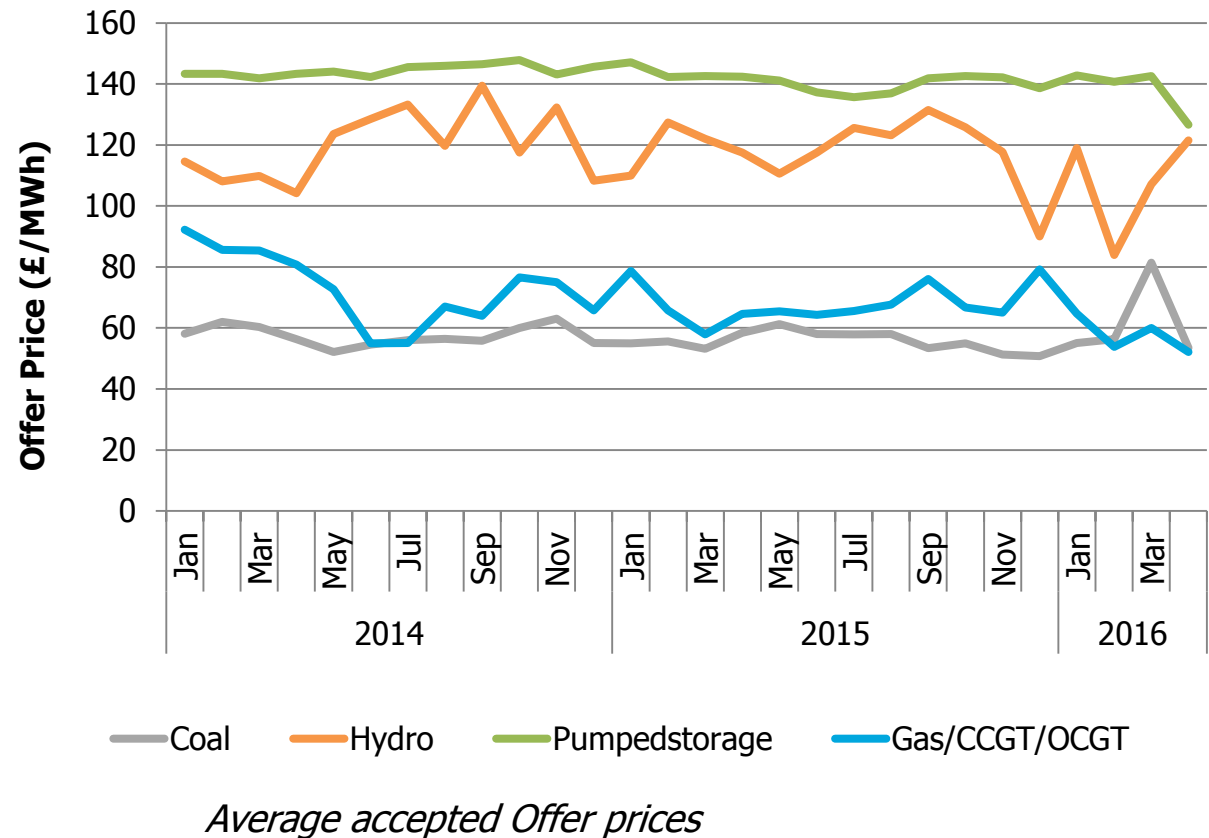
- A single price removes the inefficient price spread and the net imbalance costs that creates
- Recognises the value of 'helpful' imbalances

Against

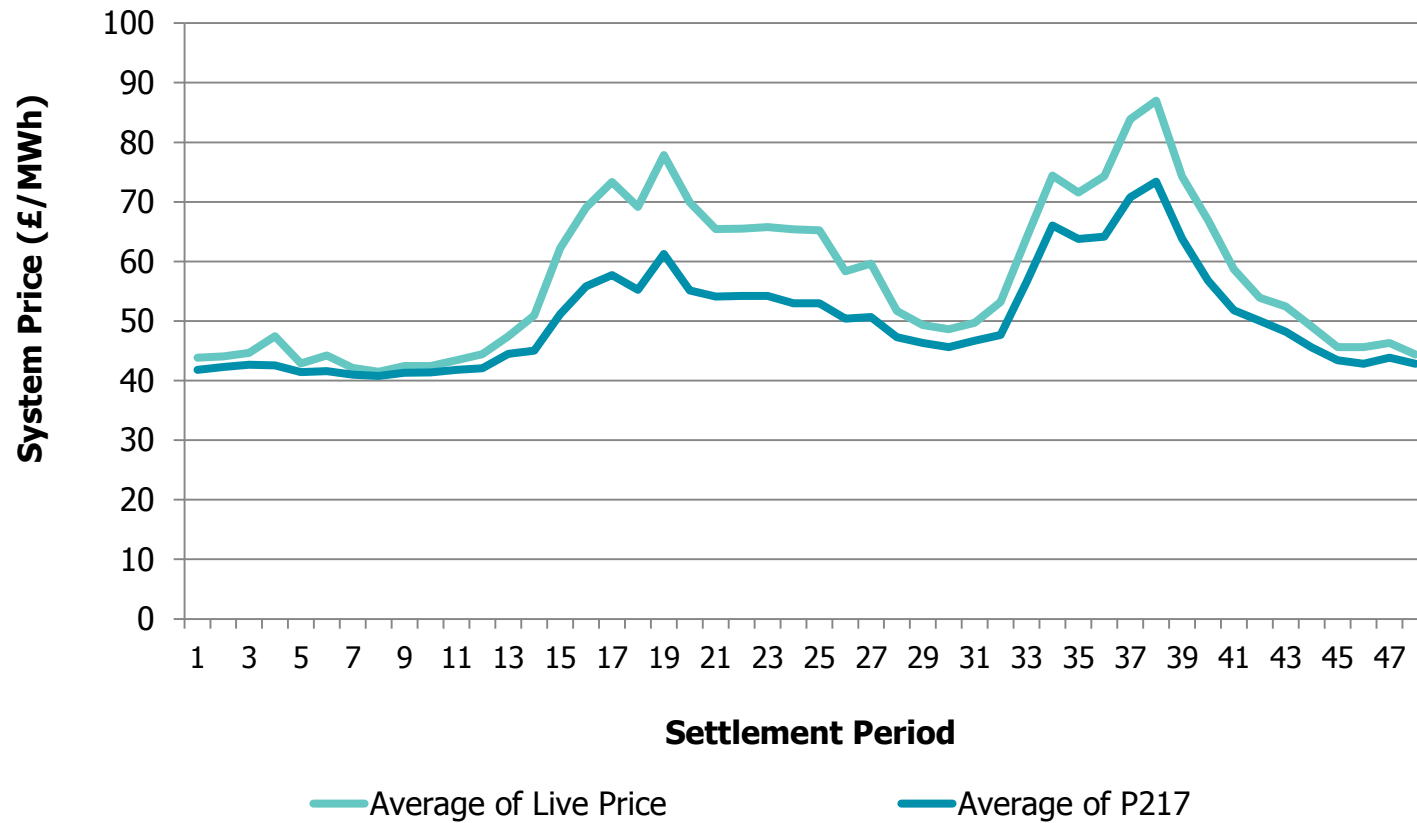
- Single price may result in less trading, reducing liquidity
- Parties may 'go long' to capture the price

The market context

- Failing wholesale prices and comfortable margins
- National Grid's Winter Outlook Review:
 - Winter 15/16 was one of the mildest winters in almost sixty years;
 - Peak demand was 1GW lower than expected; and
 - Operational conditions were less challenging than anticipated.

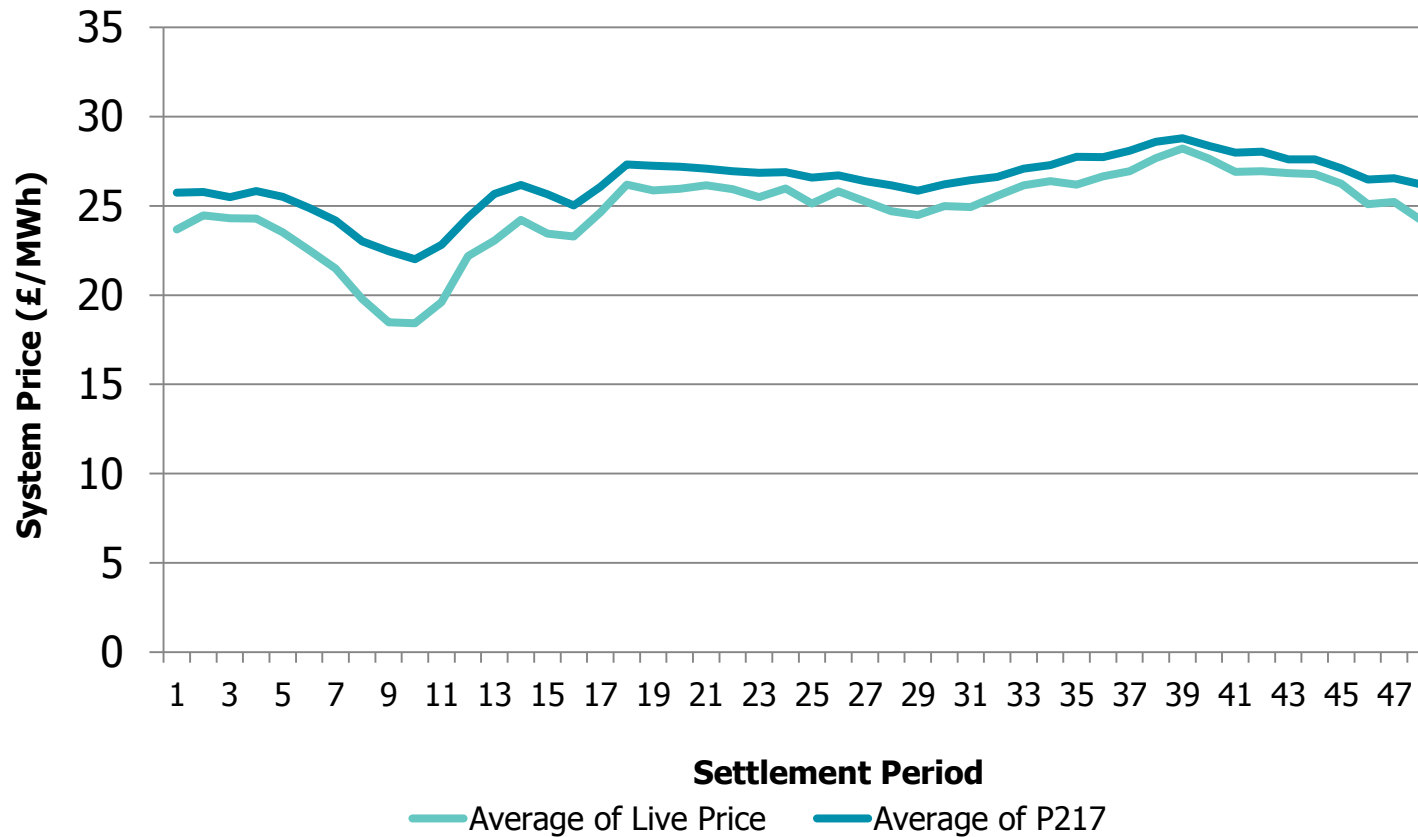


Impact of P305 on prices – short system prices



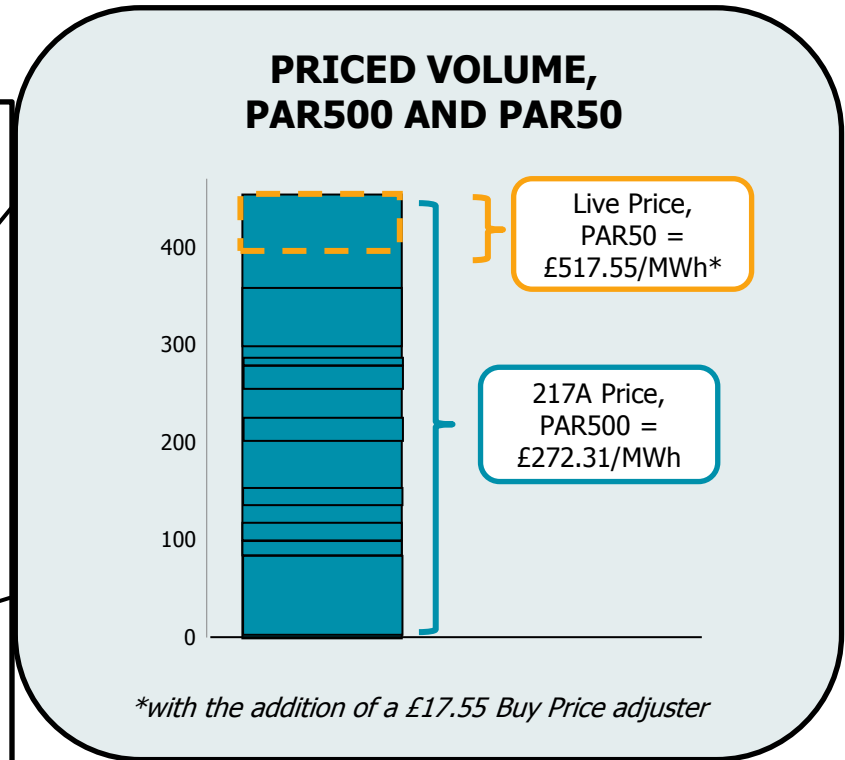
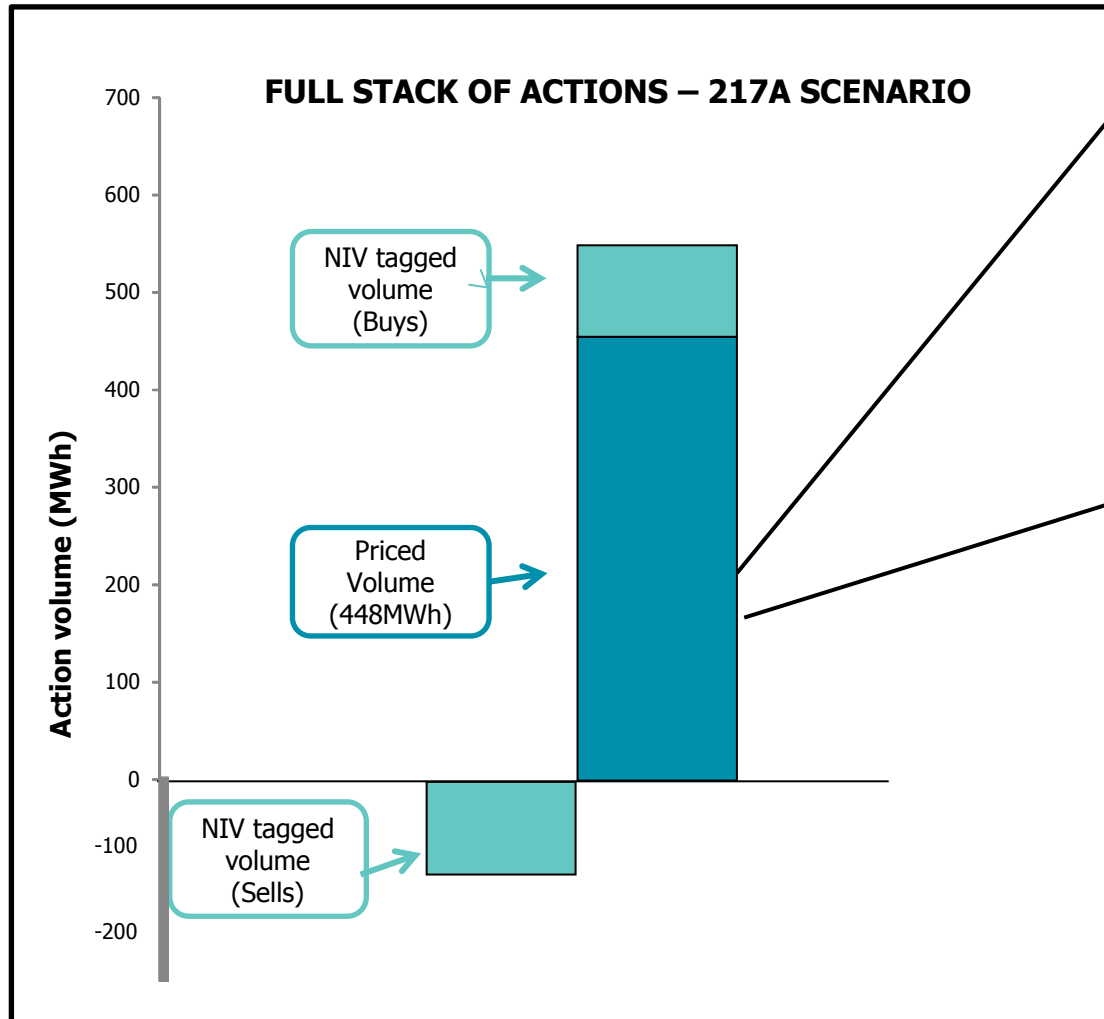
5 *Live prices recalculated using the old ("P217") calculation*

Impact of P305 on prices – long system prices

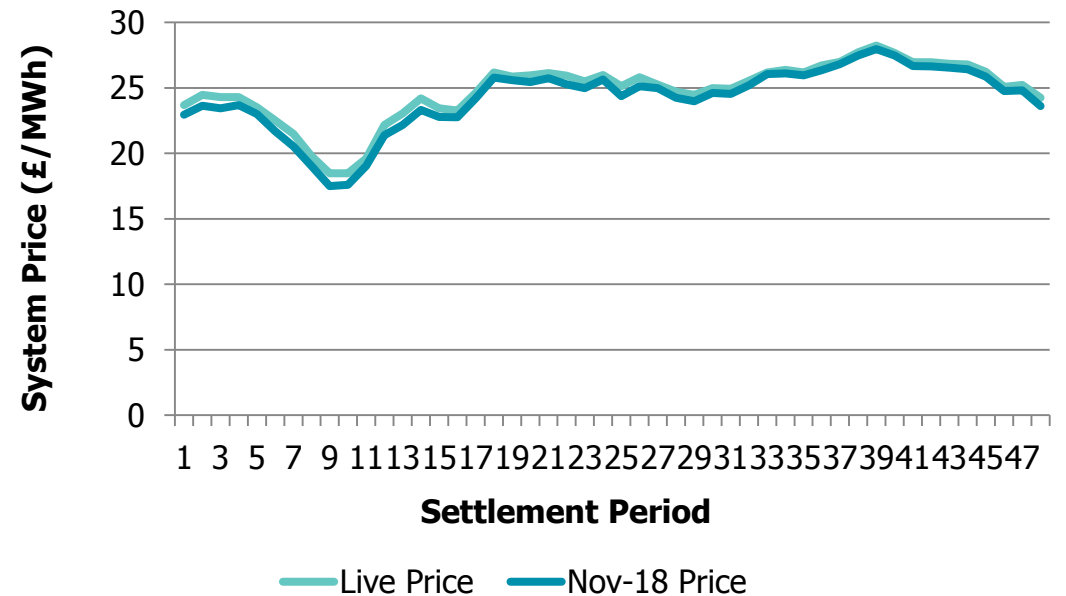
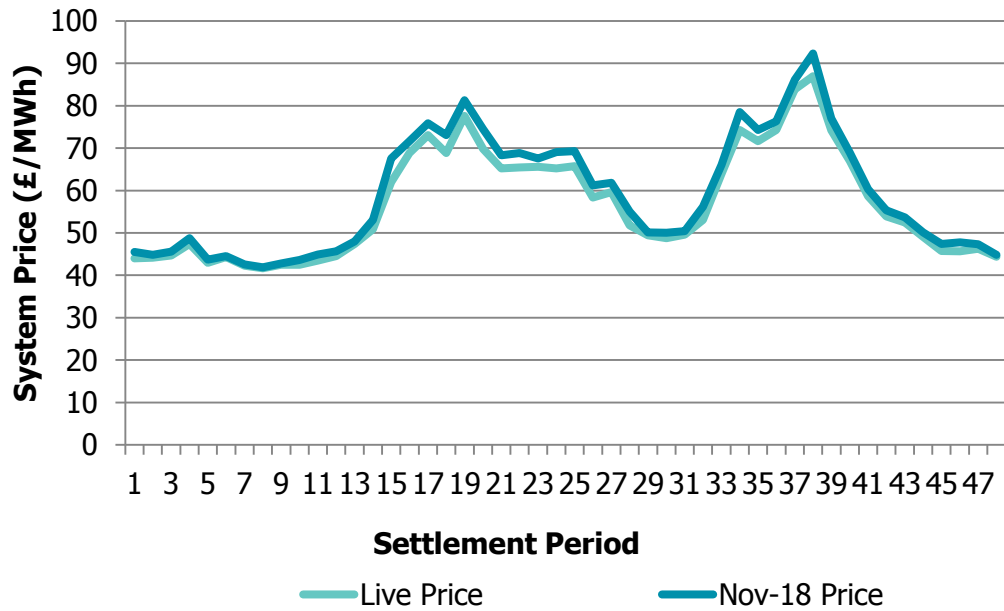


Live prices recalculated using the old ("P217") calculation

Case study – 10 March 2016, Settlement Period 40



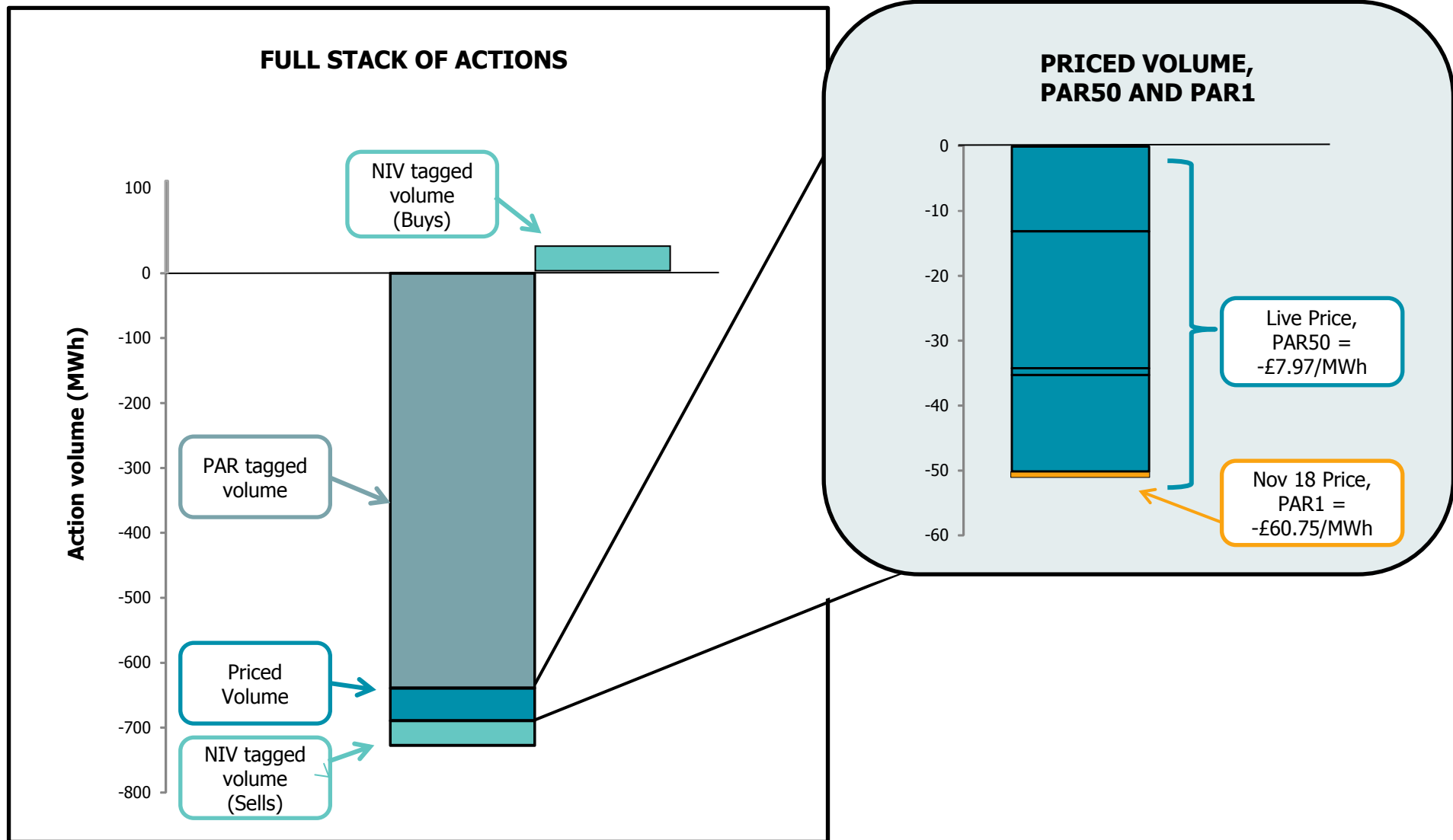
Looking forward – November 2018 scenario



Live prices recalculated using the calculation that will apply from November 2018

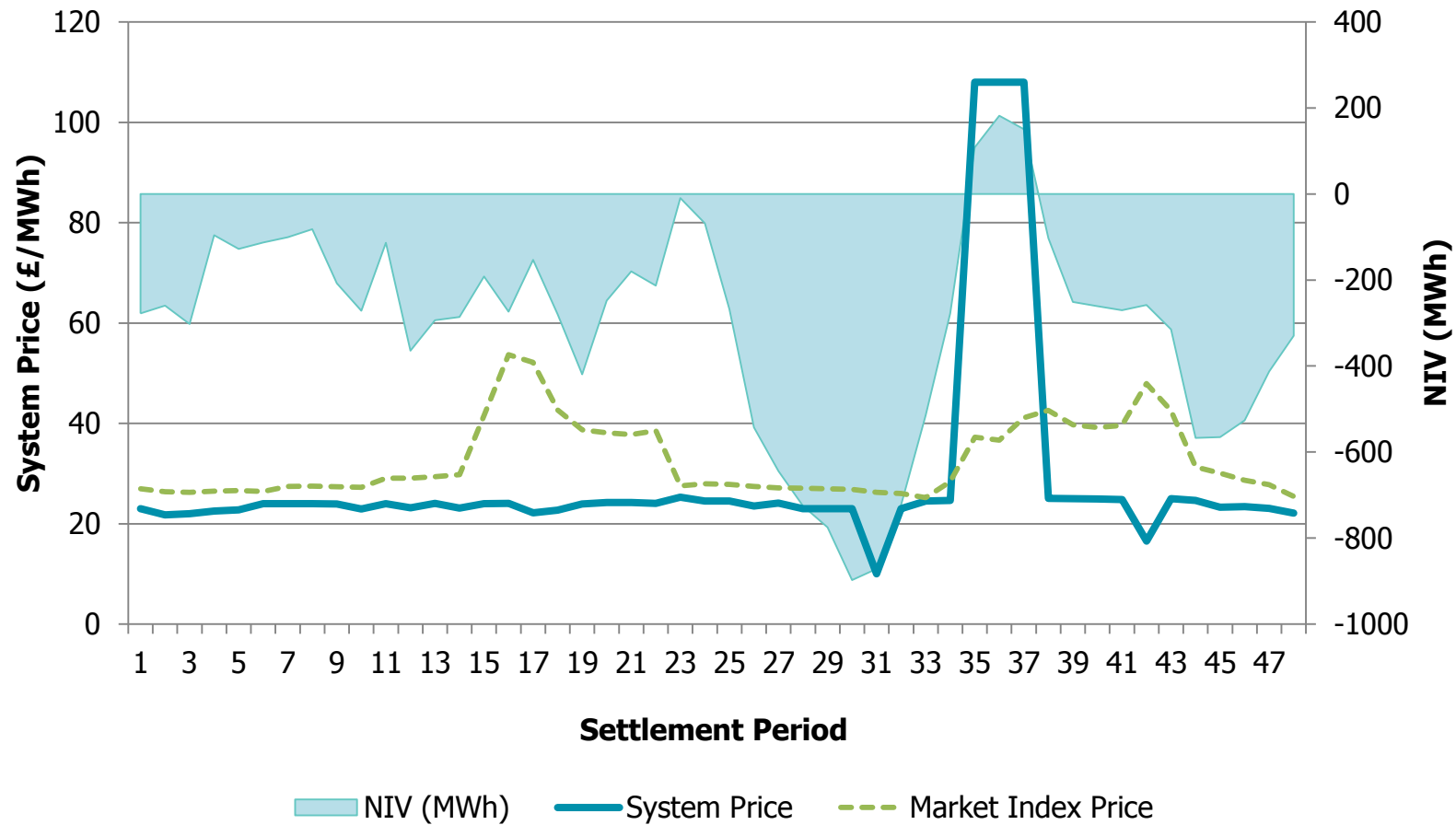


Case study – 12 January 2016, Settlement Period 13

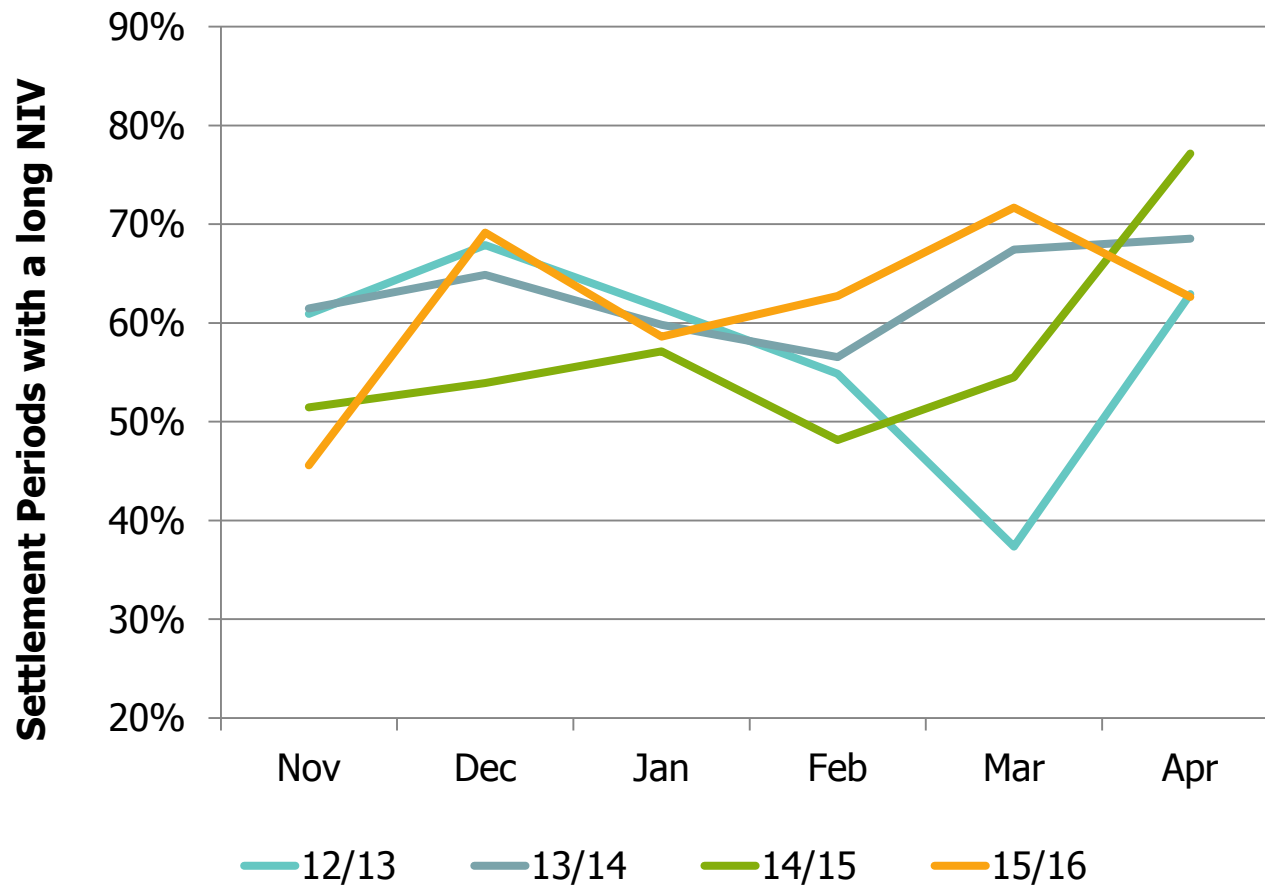


Single cash-out price

System Price and Net Imbalance Volume, 21 April 2016

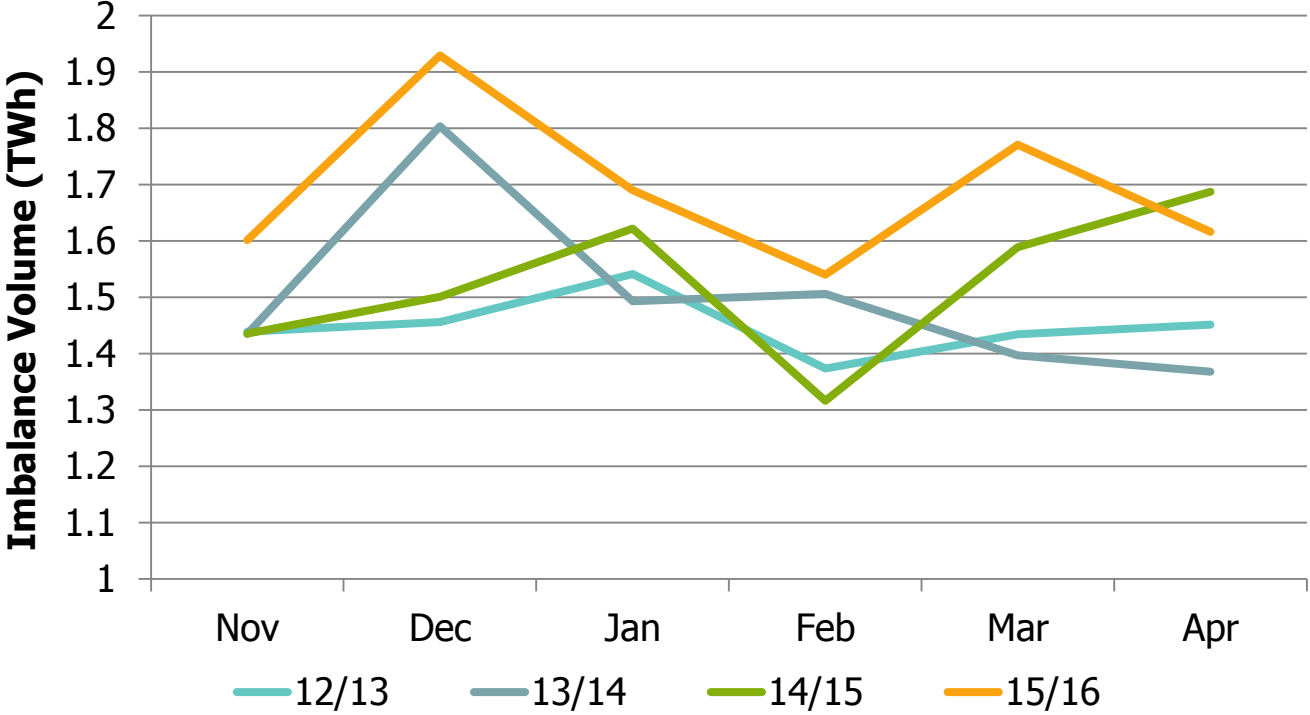


Balancing – the System



- **Net Imbalance Volume (NIV)** – the net of all balancing actions taken by the SO for a Settlement Period
- Can be used as a measure of overall balancing of the market
- This graph shows how often the NIV was long in each month

Balancing – Parties' imbalances



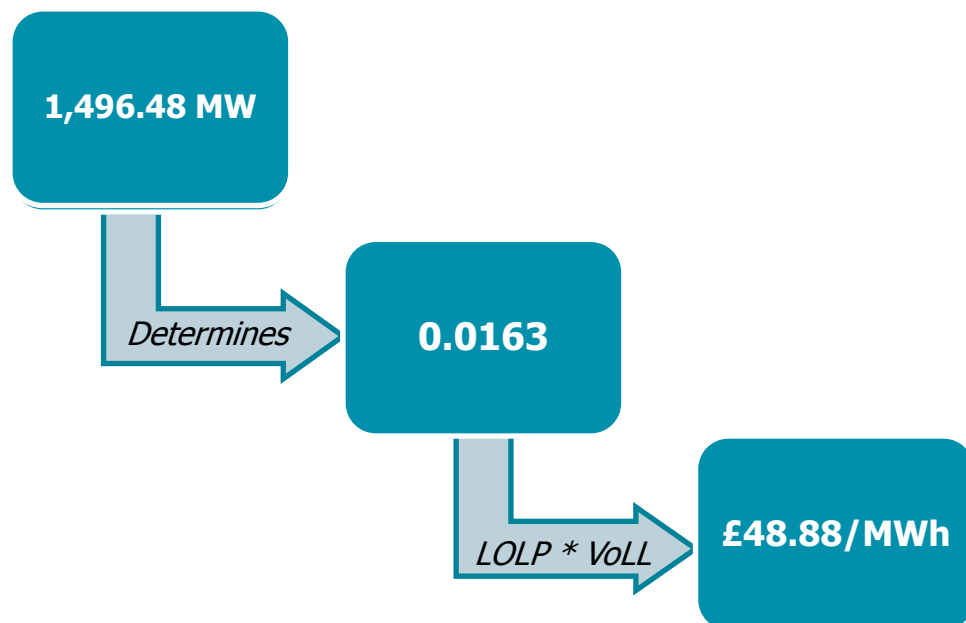
Absolute imbalance volumes by year

- Party imbalances – the difference between contracted volumes of energy and physical production and consumption



The Reserve Scarcity Price (RSP)

- No use of Reserve Scarcity Price in the period
- Data issues until 7 March 2016

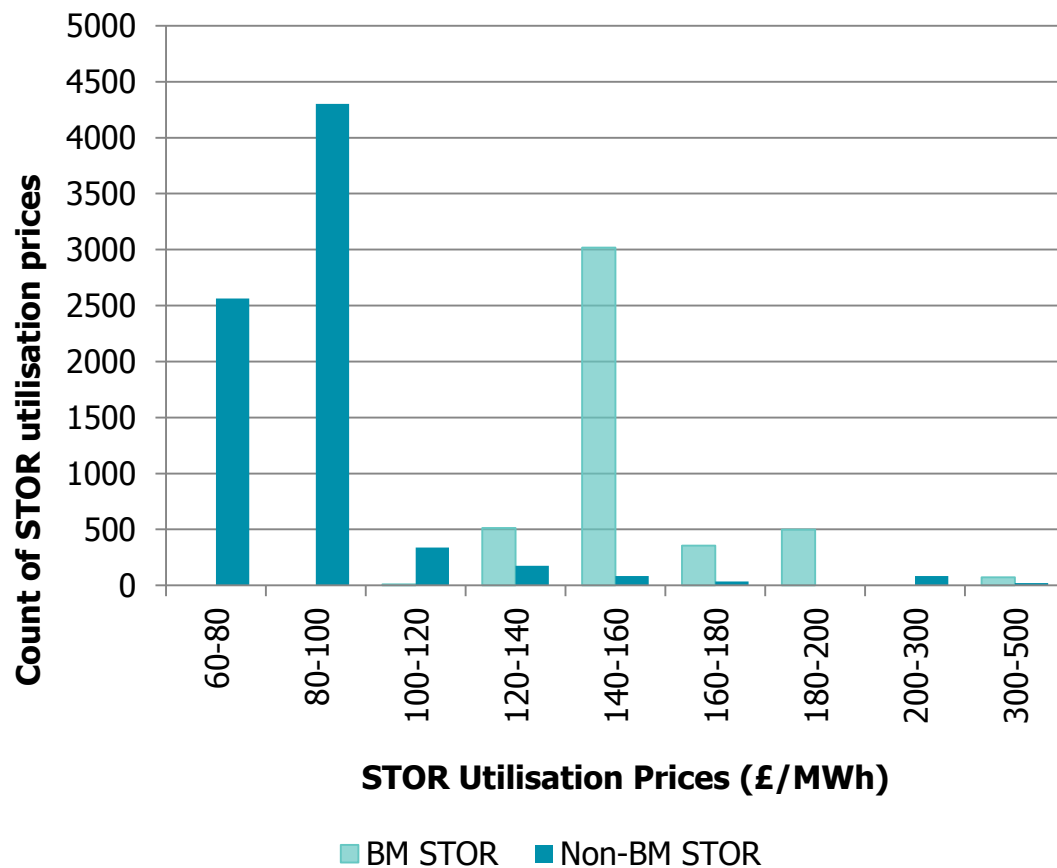


		DRM (MW)	LoLP	RSP
10/03/2016	37	1,496.48	0.0163	48.88
10/03/2016	38	1,582.23	0.0119	35.73
19/04/2016	36	1,800.67	0.0050	15.13
07/03/2016	37	1,813.48	0.0048	14.40
08/04/2016	19	1,832.39	0.0044	13.30

5 highest RSPs March and April 2016

The Reserve Scarcity Price (RSP)

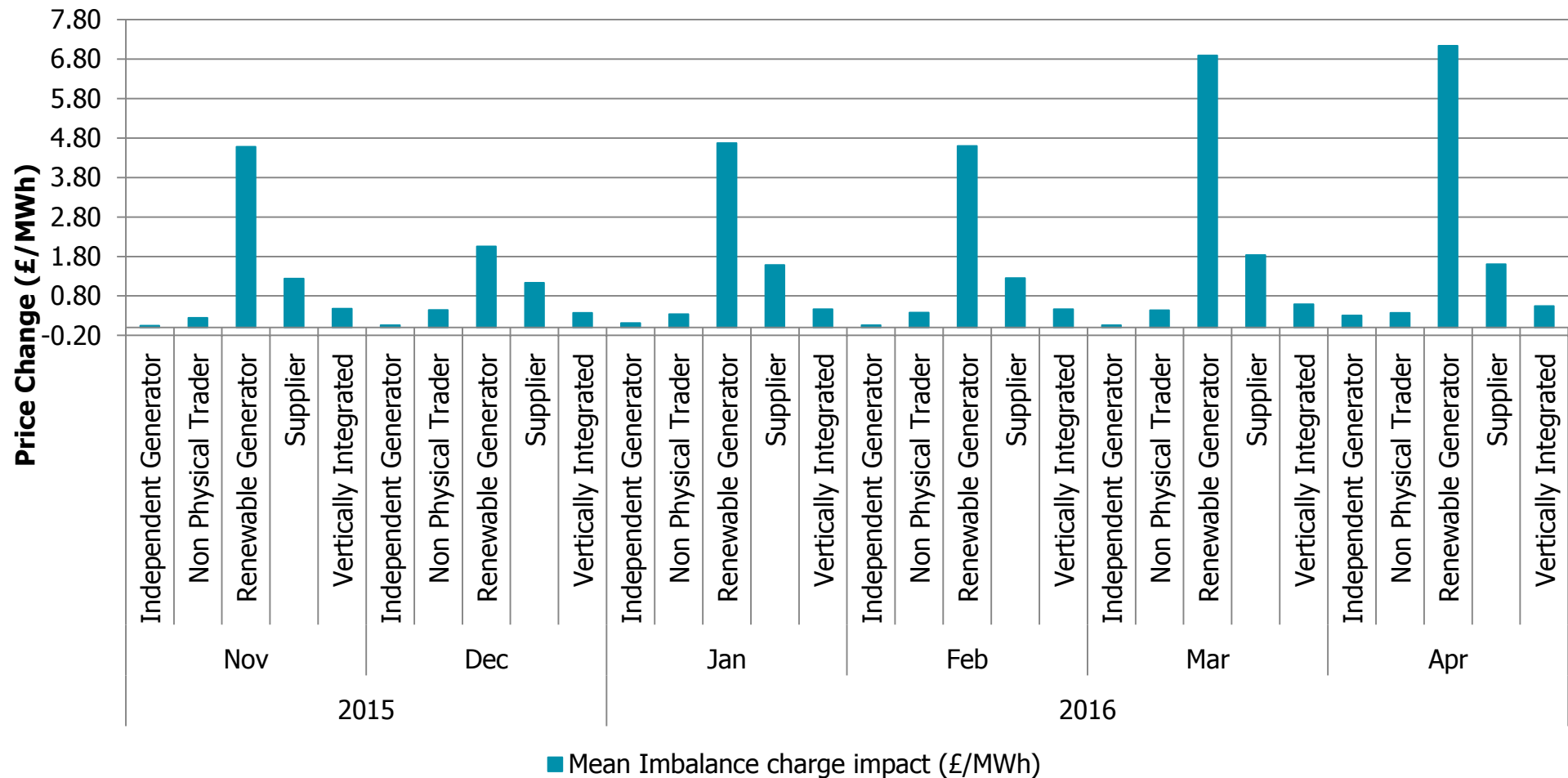
- Lowest STOR utilisation price observed £63.92/MWh



DRM (MW)	LoLP	RSP (£/MWh)
1437	0.020043	60
1414	0.021692	65
1392	0.023374	70
1371	0.025082	75
1352	0.026715	80

Illustrative DRMs and RSPs

Impact on Parties' Trading Charges



- Parties' Trading Charges have increased following the implementation of P305 by around £2/MWh per day for most Parties

Any questions?

Questions or comments?

- Communications@elexon.co.uk

Technical queries?

- Market.operations@elexon.co.uk
- Imbalance Pricing Guidance for full detail about the cash-out price calculation: www.elexon.co.uk/reference/credit-pricing/imbalance-pricing/
- System Price Analysis Report at: <https://www.elexon.co.uk/reference/technical-operations/trading-operations-report/>

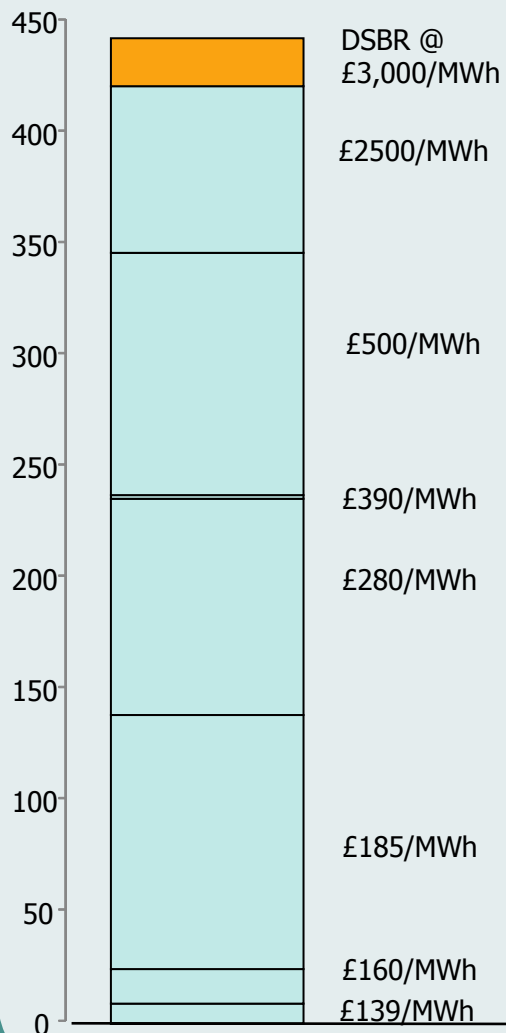


FAQ - Will the price rise to £3,000/MWh if Demand Control, Supplementary Balancing Reserve or Demand Side Balancing Reserve is needed?

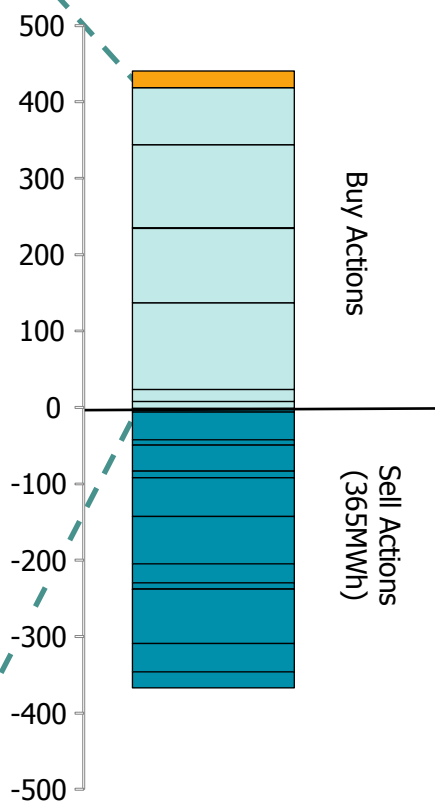
- Short answer: not necessarily
- Whether an action will set the price depends on its size and price in relation to the other actions taken to balancing the system in that half-hour
- Expensive actions in particular are excluded from the volume of actions which set the price – in particular through NIV tagging

Will the price rise to £3,000/MWh if Demand Control, Supplementary Balancing Reserve or Demand Side Balancing Reserve is needed?

1. Buy Actions (SP 35, 4 Nov 2016)



2. All actions – Buys and Sells



3. NIV tagging – removes all Sell actions, and the most expensive Buy actions



4. NIV and PAR

