

## De Minimis Acceptance Threshold (DMAT) Review 2022

### BSC Panel

Date of meeting **10 November 2022**

Paper number **332/07**

Owner/author **Angus Fairbairn**

Purpose of paper **For Decision**

Classification **Public**

Document version **V1.0**

**Summary** **Elxon have reviewed the De Minimis Acceptance Threshold (DMAT) pricing parameter and our analysis has shown that there is no case for change. We presented the analysis to the Imbalance Settlement Group (ISG) at its 10 November 2022 meeting. The ISG recommended that no change should be made to the DMAT.**

### 1. Background Information

- 1.1 The De Minimis Acceptance Threshold (DMAT) removes balancing actions smaller than a set value, currently 0.1MWh, from the Energy Imbalance Price calculation. DMAT has been subject to eight parameter reviews since its implementation. The last review in 2018 resulted in a change in the DMAT for the first time, with the value decreasing from 1MWh to 0.1MWh. The change was effective from 1 April 2019.
- 1.2 The parameter was introduced in 2001 following the implementation of [BSC Modification P10 'Eliminating Imbalance Price Spikes Caused By Truncating Effects'](#). This was an Urgent Modification raised to deal with rounding errors between National Grid and Settlement Administration Agent (SAA) systems, which were causing spurious Bid-Offer Acceptances (BOAs) and had resulted in price spikes.
- 1.3 Data passed to Settlement is specified to the nearest minute, and as a whole number of megawatts (MW). Spurious BOAs can still occur when BOA instructions coincide with the ramping up or down of a BMU.
- 1.4 Spurious BOAs produced because of the level of granularity of Settlement Systems will naturally have a small volume. A difference of 1MW between an FPN and a BOA for a minute would result in an erroneous volume of 0.017MWh.
- 1.5 As no rounding of acceptance volumes takes place during the price calculation, this suggests that a non-zero DMAT is a sensible precaution.

### 2. Highlights of Elxon's analysis of DMAT Tagged actions

- 2.1 Elxon's analysis covered the period 1 April 2016 to 30 September 2022. For each year, the assessed period ran from April to March. Data for the first 6 months of the 2022/23 year, up to the end of September 2022, was also looked at in the analysis.
- 2.2 Our analysis compared the historic volumes and numbers of BOAs and Balancing Services Adjustment Actions (BSAAs), and highlighted how the percentage of BOA and BSAA volume removed by DMAT Tagging has decreased following the reduction of DMAT from 1MWh to 0.1MWh. DMAT Tagging removed 0.065% of BOA volume in 2018/2019, compared to 0.00183% in 2021/22.
- 2.3 DMAT Tagging has removed 1.08% and 1.12% of BOA actions from the Energy Imbalance Price calculation in 2021/22 and 2022/23 respectively. This is a decrease from 4.20% of BOAs in 2018/2019. The percentage of BSAA actions removed has decreased from 9.38% in 2018/19, to 0.19% in 2021/22 and 0.03% in 2022/23 so far.

- 2.4 The total volume of DMAT BOA and DMAT BSAA actions removed in 2021/22 was 343MWh, with 173MWh being removed so far in 2022/23.
- 2.5 We also provided a view of the distribution of DMAT Tagged BOAs and BSAAAs. 37% of DMAT Tagged actions had a volume between -0.01MWh and 0.01MWh. This suggests that there could be an argument to reduce the DMAT even further to 0.01MWh. Whilst this may be a further improvement, Elexon do not feel there is sufficient evidence at this time to make this change whilst price spikes can occur from the truncating of National Grid balancing instructions as outlined in BSC Modification P10.
- 2.6 Elexon also provided some analysis following the introduction of Virtual Lead Party (VLP) BM Units participating in the Balancing Mechanism from April 2020. This analysis showed that 4.3% of all VLP BM Unit Bids and 2.7% of VLP BM Unit Offers were removed with DMAT tagging. This is no longer comparable to the percentage of all BOAs removed by DMAT Tagging in for all BM Units (around 1%), showing the DMAT of 0.1MWh may impact BOAs by VLPs more than all BOAs. However, as the total number of DMAT Tagged BOAs from VLPs represents just 0.02% of BOAs, Elexon do not have sufficient evidence to reduce DMAT further.
- 2.7 Elexon will continue to monitor the impact of DMAT tagging in the monthly System Price Analysis Report.
- 2.8 Elexon's full analysis, included as part of the paper presented to the ISG, is provided in Attachment A.

### 3. ISG Recommendations

- 3.1 Based on the analysis provided, the ISG agreed that the current value of DMAT remains suitable and recommended that no change should be made. The ISG also agreed that the next DMAT review should take place in two years' time (2022).

### 4. Recommendations

- 4.1 We invite you to:
- a) **NOTE** the analysis presented in this paper;
  - b) **AGREE** that no change is made to the DMAT; and
  - c) **AGREE** that Elexon conduct the next scheduled review to cover the period 1 April 2022 to 30 September 2024 and will be delivered to the BSC Panel in November 2024.

---

### Attachments

Attachment A – ISG259/05 – De Minimis Acceptance Threshold (DMAT) Review

---

### For more information, please contact:

Angus Fairbairn, Product Analyst

[angus.fairbairn@elexon.co.uk](mailto:angus.fairbairn@elexon.co.uk)

020 7380 4357