

CVA MANUAL ADJUSTMENTS

This document outlines the methodology used to assess the Settlement Risk related to manual adjustments in the CVA market. We are not seeking to exhaustively outline all aspects considered during this assessment; our aim is to draw out the main data items considered and any key assumptions when estimating a future impact range.

The risk that... Manual adjustments to CVA Metered Data are not completed correctly, or at all **resulting in...** erroneous data in Settlement.

Category: Central aggregation and trading charges

Sub category: Manual adjustments

Covers: Demand control (voluntary/involuntary), Independent Aggregators (Virtual Lead Parties), Peer-Peer provisions, Metered data corrections

Estimated impact in 2019/20

Market	Lower	Middle	Upper
CVA	£347k	£1.46m	£12.50m

At risk population

As part of this assessment, we seek to understand the population at risk in the upcoming period, i.e. how many times will the underlying process occur where the risk can manifest.

The "at risk" population for this risk is any Balancing Mechanism Unit (BMU) where an error in the metered volume is spotted by ELEXON, raised with the CDCA and is either not corrected prior to the subsequent reconciliation run or is updated incorrectly.

Note the risk is not that an issue occurs, but that an issue is NOT updated correctly prior to the subsequent reconciliation run.

Data point considered

Market	2016/17	2017/18
Data received (Settlement Periods)		438m

As the "Failure Rate" data is only available for the last year (November 2017 to date), the "At Risk" population for the same period is used.

Forecast

Below are the key considerations and assumptions when forecasting the at risk population in the 2019/20 period:

- Based on number of meter readings received by ELEXON (~1.2m), multiplied by 365 days, gives a yearly total to 438m meter reads that could potentially contain an error.
- To quantify this, we took the number of BMUs (~4k), and multiplied this by the number of Settlement Period in a day (48) and the number of days in a year (365). This gives a figure of ~71m Settlement Period metered volumes per Settlement Run. As there are six Settlement Runs (II, SF, R1, R2, R3, and RF – note we have excluded DF from this, as this occurs less often), multiplying ~71m by six gives a total of ~426m meter volumes (within 3% of the initial calculation).

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Failure rate

From the population at risk, we need to estimate the proportion where the risk will manifest, i.e. the failure rate. To do this, we assess historical performance in the area and consider any upcoming changes that have the potential to impact future performance.

Data points considered

When assessing historical performance in the area, we considered:

- Data errors raised with the CDCA over the most recent 12 months (November 2017 to November 2018).
- 49 issues raised and confirmed as issues by CDCA
- The length of the potential issue can vary between one Settlement Period to a few days, although any significant volume (greater than 20MW in a single settlement period) is likely to be spotted. Smaller volumes may need to occur for a number of days before being spotted, as it may be “lost” within the aggregated meter volumes.

➤ Data before November 2017 does not give enough detail to be useful

Market	2015/16	2016/17	2017/18
CDCA issues			49

Forecast

Below are the key consideration and assumptions when forecasting failure rates in the 2019/20 period:

- The total settlement periods impacts by all 49 issues still only equate to less than 0.001% of all Settlement Periods in the year.
- We have seen a reduction in the number of issues spotted in the last six months (May 2018 to date) compared to the previous six months (November 2017 to April 2018). 37 errors were flagged with the CDCA in the first six months analysed, compared to 12 on the second six month period.
- However, it is not known if this reduction is due to an improvement in CDCA process or due to seasonal variations. As such, we suggest forecasting for the same failure rate in 2019/20 as the most recent 12 months, and reviewing this again at a future date.

Impact

To estimate this risk we need to understand the average error volume per instance. However, as the risk is only relevant when a manual adjustment is not completed correctly (which we take to be before the next Settlement Run), the actual number of risk occurrence in the last 12 months was seven – or 14.3% of queries raised.

As the data used is only available for the last 12 months, we do not have a complete view of the outcome of all issues raised; for example, some issues spotted may not have been corrected in the next reconciliation run, but may be corrected on a future reconciliation run that we have yet to receive.

However for the purposes of calculating the impact, in both volume and financial terms, we will use any instance where a flagged error has not corrected by the next reconciliation run to quantify the impact. Using this methodology, the average volume of potential error was 4,031MWh.

Market	Avg. error (MWh) of issues
CDCA issues	4,031MWh

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We convert the error volume into a monetary value by multiplying by the forecast system price, adjusting this for the low, middle and upper risk scenarios. In addition, I have varied the number of expected issues across the three scenarios, leading to the following impacts:

Scenario	Occurrences	Average Volume (MWh)	Forecast System Price (£/MWh)	Materiality for 2019/20
Lower	2	4,031	£43.13	£347,174
Middle	7	4,031	£51.81	£1,461,923
Upper	49	4,031	£63.26	£12,495,052

The assumed occurrences have been chosen based on the data seen in the last 12 months:

- Lower has been set to one, as we have seen only one issue not corrected by the next settlement run in the last six months;
- Middle has been set to seven, as this is the number of instances not corrected by the next settlement run in the last 12 months; and
- Upper has been set to 49 as this is the number of instances seen in the last 2 months, irrespective of whether they have corrected or not by the next settlement run.

However, note that the volume of each issue can vary greatly due to the volume (in MWh) and length of the issue; in our analysis, the volume ranged from 40MWh to 12,610MWh depending on the issue.