

NETSO DATA SUBMISSIONS

This document outlines the methodology used to assess the Settlement Risk related to data provided by National Electricity Transmission System Operator (NETSO) for the purposes of Settlement. 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... National Electricity Transmission System Operator (NETSO) does not submit or submits incorrect Settlement data
resulting in... erroneous System Price or Trading Charges

Category: Central aggregation and trading charges

Sub category: Settlement Data

Covers: Bid Offer Acceptance (BOA) data, BM Unit Applicable Balancing Services Volume, Balancing Services Adjustment Data, Non-BM STOR Instruction Volume, Demand Side Balancing Reserve Instruction Volume, Final Physical Notification, Buy Price Price Adjustment, Balancing Services Adjustment Cost, Loss of Load Probability

Does not cover: physical notifications, or reference data such as, transmission loss, market index price, daily profiling, Line Loss Factor, temperature data.

Estimated impact in 2019/20

Market	Lower	Middle	Upper
NETSO	£393.7k	£1.06m	£2.53m

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 are BSC Party participating in the Balancing Mechanism, submitting BOA to the System Operator, and BSC Parties impacted by imbalance trading charges.

Data point considered

- The number of bids or offers accepted by NETSO per year.
- The absolute volume of Bid/Offer accepted.
- The Net Imbalance Volume (NIV), the volume of the overall system energy imbalance, as a net of all system and energy balancing actions taken by NETSO.
- All data is sourced from SAA central systems.

Market	2016/17	2017/18
No. of BOA	127k	125.8k
Bid Offer Volume (MWh)	13.5m	12m
NIV (MWh)	6m	7.7m

Forecast

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

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- Based on historic BOA data, there is little correlation between the number of BOA and the volume of energy traded through BOA. Therefore for our forecast we used the minimum, average, and maximum number of BOA and BOA volume per year, between 2015 and 2018.
- Similarly the annual NIV is wholly dependent on how well a Party manages its contracts. For our forecast we used the minimum, average, and maximum annual NIV between 2015 and 2018.

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:

- The number of Trading Disputes or Manifest Errors upheld by the Trading Disputes Committee (TDC).
- The number of Settlement Periods in a year where the system buy/sell price are re-priced following the SF Run.

Market	2015/16	2016/17	2017/18
No. Trading Disputes	2	1	7
No. Manifest Errors	0	1	0
No. Settlement Periods re-priced	331	58	227

Forecast

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

- For our forecast, for each market event we used the minimum, average, and maximum annual error instances between 2015 and 2018.

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Impact

To estimate the impact of a risk we need to understand the days impacted and error volume on average per instance.

Average days impacted

For our forecast, we used the minimum, average, and maximum days impacted through upheld Trading Disputes relating to BOA errors between 2015 and 2018.

Market	2015/16	2016/17	2017/18
Trading Disputes	0.021	0.042	0.13

Average error per day

When estimating the error per day, we used the average daily error from Trading Disputes as the middle value. The lower and upper values are $\pm 10\%$.

Market	Avg. error per day (kWh)
Lower	104.705
Middle	116.339
Upper	127.973

We convert the error volume into a monetary value by the forecast system buy and sell price for the upcoming period.

Other considerations for this risk

- ...