

## REFERENCE DATA TRANSFER AND PROCESSING

This document outlines the methodology used to assess the Settlement Risk related to the transfer and processing of Reference data. 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...** SVA reference data is not created or transferred correctly, or at all, **resulting in...** erroneous data in Settlement.

**Category:** Registration and Appointments

**Sub category:** Reference data

**Covers:** Line Loss Factors (LLF), Profiling data and Market Domain Data (MDD)

### Estimated impact in 2019/20

Market	Lower	Middle	Upper
Incorrect LLFs	£4.4k	£587.5k	£5.5m
Incorrect MDD	£430	£3.0k	£13.7k
Incorrect Profile Data	£0	£0	£0

### At risk population

As part of this assessment, we seek to understand the population at risk in the upcoming period. The at risk population for this risk is all SVA MSIDs in both the Half Hourly (HH) and Non-Half Hourly (NHH) markets. Please note that only the NHH market can be affected by Profiling data issues.

### 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:

- Audit issues from the Annual LLF Audit and historical MDD issues.

➤ There have been no known Settlement Errors relating to the incorrect processing and transfer of Profiling data

The following table provides a view of the material Line Loss Factor (LLF) Audit issues that were identified and resolved before the LLFs were approved for use in Settlement. Please note that the LLF Audit covers CVA and SVA, so the below issues are not split out into each market. However, only SVA generic issues were used in the scoring.

Market	2015/16	2016/17	2017/18
No. of material LLF issues	14	10	11

The following table provides a view of the material MDD issues that created a Settlement Error.

Market	2015/16	2016/17	2017/18
No. of material MDD issues	0	2	1

### Forecast

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

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## LLF Audit issues

- We have used historical performance observed through the annual LLF Audit when forecasting future failure rates. Although these LLF issues have been identified and resolved before the LLF values have entered Settlement, this is the only data we have to estimate the materiality of unidentified errors in LLF values.
- We focused on generic LLF issues, rather than site specific, as these affect a greater number of MSIDs.
- LLF Audit issues are not centrally catalogued by the type of audit issue, therefore it is not possible to determine to what degree a LLF Audit issue would be material and estimate associated error. As a result, the LLF error is based on a two instances of generic LLF values being incorrect.
- We calculated the failure rate by dividing the estimated number of material Line Loss Factor miscalculations by the number of Line Loss Factor Classes (LLFCs) registered in Settlement in a year.

## MDD issues

- All recorded instances of MDD errors in the last few years have been corrected before the go-live date. However, in some cases, Settlement errors persisted due to some agents failing to reload the correct MDD before the SF run. Therefore, although the correction was made in good time, a Settlement error was still present as the correct data was not loaded in time.
- Furthermore, some of the MDD errors would not have resulted in incorrect Settlement even if they did reach SF. These instances were excluded from the failure rate calculation.

## Profiling data

- We believe that the profiling component of this risk will have no financial impact. This is based on the following rationale:
  - If the profiling was not delivered for one cycle (it's delivered twice a year), we could use the profiling for the previous cycle – this would only be six months old and should still be a fair reflection of the usage "shape" across the day/year. As the profiling output is an estimation based on sample profiling data, it is hard to know whether one profile run is more accurate than another.
  - We would work towards either fixing the issue with the current service provider or engaging a new service provider. We will have six months to create a new solution, which should be enough time.

## Impact

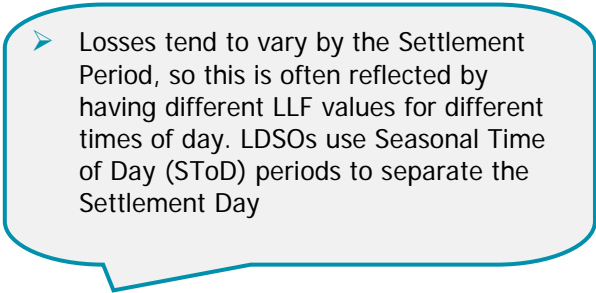
### LLF

LLFs are audited annually as part of the production and submission of LLFs. It is therefore likely that any unidentified errors will remain in Settlement for at least a year.

LLFs are LDSO-specific, and will therefore only impact a percentage of the market. As a result, to better estimate the impact of an incorrect LLF, we considered how many MSIDs would likely be impacted.

Once we estimate the number of MSIDs affected, we need to estimate the average consumption of those sites. For this, we used a standard rate card for average consumption across both NHH and HH.

The final step in calculating the impact of incorrect LLFs is to multiply the volume by the percentage error associated with the LLF. For example, an LLF was calculated as 1.0 but should have been 1.1, then the percentage difference in consumption between what was settled compared to what should have been settled is 10%. In reality, LLFs are calculated for specific Seasonal Time of Day (STOD) periods, and so a weighted average of the difference for each of those periods was used to simplify the scoring.



➤ Losses tend to vary by the Settlement Period, so this is often reflected by having different LLF values for different times of day. LDSOs use Seasonal Time of Day (SToD) periods to separate the Settlement Day

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Event	Error (%)
Incorrect LLFs	2.5%

### Market Domain Data

In contrast to LLFs, we use the average associated with each observed instance of incorrect MDD to estimate the impact. This average error was taken from the MDD Release 00601 in which two GSP Groups were excluded. This instance was used as it was the only MDD error that had a calculable materiality associated with it.

Event	Average Error (mWh)
Incorrect MMD	58.4

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

- In the past three years, we have seen two Trading Disputes related to this risk with a total materiality of zero. This is because the Trading Dispute were corrected via the BSCP128 'manifest error' process.