CVA REGISTRATIONS

This document outlines the methodology used to assess the Settlement Risk related to the registration of Central Volume Allocation (CVA) Balancing Mechanism (BM) Units, Grid Supply Points (GSPs), Distribution Systems Connection Points (DSCPs) and Interconnectors. 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… a Volume Allocation Unit (VAU) is registered incorrectly or not at all such that the Central Data Collection Agent (CDCA) does not collect any or the relevant data **resulting in…** erroneous, estimated or missing data in Settlement.

Estimated impact

Year	Lower	Middle	Upper
20/21	£3,884	£4.2m	£14m
19/20	£0	£483k	£2.4m

Category: Registration and Appointments

Sub category: Registration

Covers: Registration of a new BM Unit, Transfer of an existing BM Unit registered in SVA to CVA, ,De-registration of a CVA VAU, Transfer of a CVA BM Unit to SVA

Does not cover: Errors at an existing site which are covered by Risk 020 Metering Equipment installation, programming, maintenance and commissioning and Risk 023 Fault resolution.

Please note: The impact is based on an unregistered CVA VAU, either caused as a new connection or a failure in the SVA to CVA transfer process. Failure in the de-registration process has not been estimated as the main failures we see with the de-registration process is Metering being removed prior to de-registration. In this scenario the CDCA estimates the data in line with the process in the BSCP meaning that there is no Settlement impact.

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 the registration of new VAUs, the de-registration of VAUs and the transfer of BM Units from SVA to CVA and vice versa.

Data point considered

- National Grid's Transmission Entry Capacity (TEC) register gives an indication of the number of directly connected BM Units current planned to connect in the 2020/21 period, however the dates in this could change and it only gives a subset of the registrations included in this risk.
- Although we are aware of upcoming registrations, we often do not receive notice new registrations and de-registrations until between three months and six weeks before the energisation date.
- Historic Registrations, De-registrations and transfers.

Using our internal registration tracking data base we have identified the following CVA Registrations, De-registrations and transfers in the last three PAOPs.

PAOP	2016/17	2017/18	2018/19
Number of De-registrations or transfers CVA to SVA	10	8	16
Number of Registrations or transfers SVA to CVA	49	38	33
Total	**59**	**46**	**49**

CVA REGISTRATIONS

Forecast

We have forecast using an average of the CVA registrations, de-registrations and transfers seen over the last three years giving a mid-point of 53 registrations, de-registrations and transfers and a range of 45 to 60 transfers.

At Risk Population		
Lower	Middle	Upper
45	53	60

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:

- BSC Audit issues

We have analysed the BSC Audit Issues from the last three PAOPs and determined that the following issues relate to this Settlement Risk:

PAOP	No. of high issues	No. of medium issues	No. of low issues	No. of MLP issues	Registration/De-Registration Activity	Failure Rate
2016/17	0	0	2	6	59	3.39%
2017/18	0	0	1	5	46	2.17%
2018/19	0	0	1	0	49	2.04%

Failure Rate is calculated by diving the number of issues by the registration / de-registration activity. MLP issues have not been included as they are not Settlement impacting.

Forecast

We have produced a forecast based on the Failure rates above.

Failure rate		
Lower	Middle	Upper
2.20%	2.80%	3.40%

Days Impacted

If a failure does occur, we need to estimate the number of days that it might impact.

Data points considered

- Trading Disputes
- Internal knowledge

There have been two Trading Disputes relating to this Settlement Risk impacting the last three PAOPs:

CVA REGISTRATIONS

- A)
  - Effective From and To Settlement Dates: 08/08/2014- 11/08/2015
  - Impacted days: 368
  - Total materiality: £7221
  - Annualised materiality: £7142
- B)
  - Effective From and To Settlement Dates: 01/01/2009-01/02/2018
  - Impacted days: 3318
  - Total materiality: £6,000,000
  - Annualised materiality: £660,036.

There are three other Trading Dispute relating to this risk which are currently ongoing and we have seen three near misses against this risk in the current PAOP.

	2016/17	2017/18	2018/19
Number of Trading Disputes affecting Settlement days in the PAOP (Closed and ongoing)	3	3	2

Forecast

Both closed Trading Disputes that relate to this risk have lasted over one year so our estimate for the maximum length of time that risk could affect is 365 days, i.e. the whole period.

We have estimated the middle and upper number of days impacted to be 365 on the basis that both Trading Disputes that we have seen lasted over a year. We have estimated the lower number of days impacted to be half a year.

Days impacted		
Lower	Middle	Upper
182	365	365

Error per day

Data points considered

- Trading Disputes

For the two closed Trading disputes, we calculated the error per day by dividing the Total Error by 365 and multiplying by 46.61 (as the system price) to convert the monetary value into a MWh value.

Disputes Summary	Total	Error Per Day
A	£7,221	0.40
B	£6,000,000	334.36

Using this we have calculated the minimum error per day as 1, the maximum as 334 and a midpoint half way in between.

CVA REGISTRATIONS

Forecast

The average error per day has been forecast as

Error per day		
Lower	Middle	Upper
1	167	334

System Prices

Forecast

The system prices have been forecast as

System prices		
Lower	Middle	Upper
43.110	46.610	56.240

Total Materiality

Forecast

We have forecast the total materiality by multiplying the at risk population by the failure rate by the days impacted by the error per day by the system price for each of the lower middle and higher values.

Market	Event	Total materiality		
		Lower	Middle	Upper
CVA	Unregistered CVA site	£3,884	£4,216,211	£13,986,686
Total		**£3,884**	**£4,216,211**	**£13,986,686**