

REVENUE PROTECTION

This document outlines the methodology used to assess the Settlement Risk related to Revenue Protection. 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... Revenue Protection processes are not managed sufficiently, such that unrecorded energy volumes are excluded from Settlement **resulting in...** erroneous or missing data in Settlement.

Category: Data Retrieval and Processing

Sub category: Revenue Protection

Covers: Investigatory processes and management of Agents including correct manual adjustments to Settlement data.

Does not cover: Electricity Theft Detection Incentive Scheme (ETDIS)

Estimated impact in 2019/20

Lower	Middle	Upper
£1.7m	£4.3m	£10.1m

Impact will remain unchanged for the 2020/21 PAOP

Please note: The risk focuses solely on the risk to Settlement posed by identified energy theft and revenue protection volumes are not settled completely.

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 the underlying process occurs where the risk can manifest.

The at risk population for this risk are those Metering Systems which have been subject to energy theft including those going through revenue protection process.

Data point considered

To assess revenue protection volumes have been estimated from analysis reported by OFGEM and information gathered from reporting and discussions and with Parties.

Please see below the at risk volumes ELEXON has identified from the analysis of data points.

Estimated energy theft			
Source	Period	Instances	Retail (£)
UK power	2018/19	25.0k	£500.0m
British gas	2016/17	10.0k	£400.0m
Telegraph	2016/17	-	£440.0m
Daily mail	2013/14	-	£500.0m
Ofgem	2013/14	20.0k to 25.0k	£200.0m
Identified energy theft			
Source	Period	Retail (£)	Wholesale (£)
Ofgem	2009	£21.7m	8.1m
Ofgem	2010	£19.1m	6.0m
EDF D0236 extrapolated	2017/18	£23.6m	8.4m

- UK Power assessment shows only Electricity Theft instances, whilst the impact combines Gas and Electricity Theft
- British Gas figures show the instances they identify, and the material impact across the market
- The reported figures from the Newspapers represent the material impact across the market
- The OFGEM figures relate only to electricity theft
- ELEXON have utilised the Credit Assessment Price to convert Retail prices to Wholesale Price

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Forecast

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

- OFGEM reported that a Third of all energy theft is related to cannabis cultivation.

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 BSC Audit, Technical Assurance of Metering (TAM) and Technical Assurance (TAPAP)
- Technical Expert analysis and opinion from OFGEM and ELEXON

The following table provides a view of the proportion of revenue protection volumes which are not entered into settlement.

Failure Rate	Lower	Middle	Upper
Revenue Protection	20.00%	33.33%	66.66%

- ELEXON technical expert opinion, alongside discussions with parties and OFGEM analysis has been used to formulate the non-settled proportion
- ELEXON's reliance on self-declared Revenue Protection Settlement Performance contributes to the large impact volatility

Forecast

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

- ELEXON has had to rely on [self-declared assessment](#) of Parties' performance when settling its total volume of revenue protection consumption, due to a lack of data available to ELEXON. The high failure rates can be attributed to the uncertainty surrounding the process and legacy audits in this area

Other considerations for this risk

- The Electricity Theft Detection Incentive scheme introduced in June 2018 under the Distribution Connection and Use of System Agreement (DCUSA) should see the identification of energy theft increase although it is assumed the volume of energy stolen will remain consistent at least in the short term.
- ELEXON has utilised the Theft Detection Incentive scheme to estimate the increase in theft detection. The 2018/19 Target is a 36%-70% increase on the previous year.
- ELEXON has assumed that the theft incentive scheme will not result in increased proportion of settled units, as this is not an explicit requirement in the scheme.

- Additional evaluation of this risk would be possible with access to additional data.
- The large volatility expressed in the assessment of revenue protection is a result of the limited information available for analysis.