REC Theft Target Methodology

20/02/2025

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CHANGE HISTORY

Version	Status	Issue Date	Author	Comments
1.0	FINAL	27/02/2023	Code Manager	Final Version for 2023/24 theft year
2.0	FINAL	12/12/2023	Code Manager	Initial Version for 2024/25 theft year
2.1	FINAL	12/01/2024	Code Manager	Iteration following RECCo cover letter
2.2	FINAL	09/02/2024	Code Manager	Iteration following conclusion of Category 3 Change Process and December 2023 CPI figures becoming available.
3.0	DRAFT	10/12/2024	Code Manager	Initial version for 2025/26 Theft Year, for PAB Review and Category 3 Consultation
3.1	FINAL	20/02/2025	Code Manager	As published following Category 3 Consultation, with TDV and Target data updated to reflect final input data available (inflation and latest split of metering data)

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DOCUMENT CONTROLS

Reviewer	Role	Responsibility	Date
Andrew Waghorn	Performance Assurance Technology & Data Lead	Primary Review	09/12/2024
Walter Carlton	Performance Assurance Lead	Overall Review	10/12/2024

Purpose

This document sets out the process used by the REC Code Manager to determine individual supplier theft targets as part of the Theft Detection Incentive Scheme ("TDIS") as described in Schedule 7 – Energy Theft Reduction ("the Schedule"), referred to as the Theft Target Methodology ("TTM").

Following REC change R0091 – "Clarifications to the Theft Detection Incentive Scheme" responsibility for the TTM – that determines the level, distribution and value of targets and hence the overall size of the incentive pots – moved from the RECCo Board to the Code Manager. Reporting Year 2024/25 is the second year that this change applies to.

Summary

The Theft Targets for TDIS Reporting Year 2025/26 will be calculated in line with the requirements of the Schedule based on the inputs below.
The changes made to Reporting Year 2025/26 are based on responses received from the industry following a call for evidence on initial analysis and change options published by the Code Manager, and Supplier performance in the last Reporting Year. Limited changes have been introduced for the 2025/26 year given the changes from the 2024/25 year have been in operation for less than a year and due to the wider changes to the scheme expected to be implemented as a result of implementation of REC Change R0173.

Specifically, the following parameters and methodology will apply:

Item	Description/Purpose	Data Used	Summary of Changes from 2024/25
Incentive Pots	Split the overall market into separate segments, each operating with an independent target, theft detection value and calculation of end of TDIS Reporting Year credits/debits.	6 pots have been utilised: ▪ Electricity Domestic ◆ Smart ◆ Non-Smart ▪ Electricity Non-Domestic ▪ Gas Domestic ◆ Smart ◆ Non-Smart ▪ Gas Non-Domestic	No change. The initial results for the 2024/25 theft year show differential results between the Smart and Non-Smart pots supporting the ongoing use of these additional segments.

<table>
<tr><th>Item</th><th>Description/Purpose</th><th>Data Used</th><th>Summary of Changes from 2024/25</th></tr>
<tr><td>Theft Detection Value</td><td>The estimated net cost to an Energy Supplier of having undertaken activity to detect the theft compared to not taking action which in combination with the target sets the value of each incentive pot.</td><td>
<table>
<tr><th>Fuel</th><th>Segment</th><th>Theft Detection Value (£)</th></tr>
<tr><td>Elec</td><td>Domestic</td><td>£481.87</td></tr>
<tr><td>Elec</td><td>Non-Domestic</td><td>£1,498.62</td></tr>
<tr><td>Gas</td><td>Domestic</td><td>£1,278.61</td></tr>
<tr><td>Gas</td><td>Non-Domestic</td><td>£4,423.96</td></tr>
</table>
</td><td>The TDV for the gas non-domestic has been increased (by a factor of 2) based on the data provided in the call for evidence.

All values have been adjusted for inflation –using the December 2024 CPI figure published by the Office for National Statistics.

As in the 2024/25 Theft Year the TDVs for domestic customers are not being split by Meter Type (Smart/Non-Smart). Therefore, the same TDVs for Electricity Domestic and Gas Domestic will apply for their respective Smart and Non-Smart split pots i.e., £481.87 and £1,278.61 respectively.</td></tr>
<tr><td>Target</td><td>The number of confirmed thefts targeted to be detected for each pot which in combination with the Theft Detection Value sets the value of each incentive pot.</td><td>
<table>
<tr><th>Fuel</th><th>Segment</th><th>Meter Type</th><th>Overall Theft Target</th></tr>
<tr><td>Elec</td><td>Domestic</td><td>Smart</td><td>15,889</td></tr>
<tr><td>Elec</td><td>Domestic</td><td>Non-Smart</td><td>14,111</td></tr>
<tr><td>Elec</td><td>Non-Domestic</td><td>-</td><td>4,000</td></tr>
<tr><td>Gas</td><td>Domestic</td><td>Smart</td><td>2,755</td></tr>
<tr><td>Gas</td><td>Domestic</td><td>Non-Smart</td><td>3,300</td></tr>
<tr><td>Gas</td><td>Non-Domestic</td><td>-</td><td>945</td></tr>
</table>
</td><td>The target for gas non-domestic meters has been reduced, with a corresponding increase applied to the gas domestic segment to provide more realistic and achievable targets in the respective sectors.

The allocation of the domestic targets has been updated to reflect the current split of Smart/Non-Smart meters within the domestic segment based on the portfolio data used for party attribution (see below).</td></tr>
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For the purposes of this version an initial update has been calculated, this will be finalised following the consultation using the same method but with the latest available information of the split of smart/non-smart meters…

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Item	Description/Purpose	Data Used	Summary of Changes from 2024/25
Attribution methodology	Determines how targets are allocated to individual Energy Suppliers within each incentive pot.	Targets will be allocated based on market share, derived from the December 2024 number of registered meter points as reported from CSS, combined with data from EES and GES to allow additional splits between Smart/Non-Smart as per the incentive pots above. Data from CSS will be adjusted to reallocate any meter points reported as domestic where an Energy Supplier has a Non-Domestic-only licence. The final target allocated per Energy Supplier is rounded down to the nearest whole number (including zero). Due to known data quality issues with the Domestic Premises Indicator (DPI) within CSS, Suppliers were provided with an opportunity in January 2025 to notify the Code Manager of the need to adjust the split of their portfolio between domestic and non-domestic customers (but with no change to the overall number in their portfolio).	Adjustment of portfolio data due to known issues with DPI Data and the corresponding REC Derogation RECDER_22 have been included within the TTM.

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Context

As part of Schedule 7 and Standard Licence Conditions, Energy Suppliers are required to take actions to seek to reduce theft of energy by identifying and addressing individual cases of Energy Theft. To support this activity the Theft Detection Incentive Scheme ("TDIS") has operated for a number of years, previously under the governance of DCUSA and SPAA and now under REC governance. To date the scheme has largely operated on the same basis under REC as the legacy arrangements and industry performance under TDIS both under the legacy and REC governance has been below the targeted levels. The Theft Estimation Methodology was last published in early 2023 and whilst the absolute financial value of energy theft has reduced from the estimate made in that report given reducing energy prices, it still represents a significant cost to consumers as well as presenting safety risks.

Although the scheme has largely operated on the same basis as the legacy arrangements, it is anticipated that REC Change R0173 will introduce changes to the scheme, in particular introducing incentive credits/debits for certain investigation activity. For clarity the parameters in relation to this change for the 2024/25 Theft Year have been included in the change itself and hence are not considered further in this document, however should the change be approved will form part of the TTM in future years.

As per the requirements within the Schedule the TTM requires consideration of a number of inputs:

- The number and definition of **incentive pots** – i.e. how the supply market is split into consumer segments, each pot then operating independently for the purposes of target setting and subsequent calculation of end of TDIS Reporting Year credits/debits.
- The **Theft Detection Value** – defined in the Schedule as an estimated value based on the likely net cost to an Energy Supplier of having undertaken activity to detect the theft, as compared with having taken no action.
- The specific **target** for theft identification that is targeted for each incentive pot in the TDIS Reporting Year.
- An **attribution methodology** to allocate the target for each incentive pot to the relevant Energy Suppliers for that pot, which the Schedule identifies should be based on market share.

The remainder of this paper sets out the basis of the determination of each of the above inputs.

Theft Target Methodology

INCENTIVE POTS

The Schedule sets out explicitly that incentive pots should be split between gas and electricity fuel types, and Domestic and Non-Domestic customer segments, resulting in four incentive pots. Annex 3 of Schedule 7 states targeted incentive pots are established for each of the consumer segments identified in the TTM, requiring at a minimum a split between gas and electricity and domestic consumers and Non-Domestic consumers.

In the 2024/25 Theft Year a split of the domestic pot was introduced between Smart and Non-Smart Meters. Based on data reported by Parties through October 2024 we can see differential performance in the reporting of thefts between the smart and non-smart pots which suggests that this change was valid – with 66% of domestic electricity confirmed thefts and 80% of domestic gas confirmed thefts reported in the non-smart meter segments.

Retaining the split of the domestic segment allows the targets to be set differently for the different meter types and hence supplier targets to reflect differing levels of smart/non-smart meter portfolios. It is therefore proposed to retain split incentive pots for domestic customers.

The Code Manager previously explored the option to allow split the non-domestic segment between SME and I&C customer types. Whilst we believe there remains merit for this split a clear definition that can be reliably determined from central industry data does not exist and hence at this stage no change is proposed.

Given the above, for the purposes of 2024/25 Theft Targets six segments will be used:

- Electricity Domestic Smart
- Electricity Domestic Non-Smart
- Electricity Non-Domestic
- Gas Domestic Smart
- Gas Domestic Non-Smart
- Gas Non-Domestic

The data used to determine meter points as Domestic or Non-Domestic will continue to be based on classification reported from CSS based on the domestic premises indicator (see **attribution methodology below).** The Domestic meter type split is determined based on “Meter Type” and “Smart Meter Indicator” fields taken from EES and GES datasets.

Note that given the need to use data from two separate sources which cannot be matched at a meter point level, the data from EES/GES used to split the overall Domestic/Non-Domestic populations will be applied through calculating a per-MPID ratio as described on page 16.

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THEFT DETECTION VALUE

The focus of the call for evidence for the 2025/26 year was on obtaining information regarding costs incurred by Suppliers to investigate thefts in order to support validation or revision of the TDV values. We received a limited number of responses from Suppliers, with only five Suppliers providing responses although this did cover 29% of the confirmed thefts reported in 2023/24. All five Parties who responded had activity in the non-domestic sector, with two Parties also having activity in the domestic sector.

As part of the response to the call for evidence suppliers provided details on their costs (in some cases broken down by segment and/or broad spend categories of Lead Generation, Desktop Investigation, Site Visits and Other costs). Each respondent also provided details on the number of desktop investigations, site visits and confirmed thefts reported that the costs related to.

To protect the commercial confidentiality of the data provided and given the limited breakdowns provided by some Parties only a limited amount of information from the call for evidence has been included in this document.

OVERALL LEVEL OF TDV

Given the level of analysis possible we initially considered the overall level of the TDV – i.e. across the scheme as a whole rather than at the individual pot level. Our aim was to determine whether the current level of the TDV was significantly (potentially orders of magnitude) different to the information provided from Suppliers or was broadly consistent.

As expected, the largest single contributor to costs, for those suppliers who provided a breakdown, was the cost of site visits. A unit cost could be considered either purely on the basis of the cost per investigation (taking into account that site visit costs only apply to those investigations that progress to a site visit) or per confirmed theft. The latter approach in effect assumes that the cost of investigating a theft includes an allowance for theft investigations that do not result in a confirmed theft as a necessary cost to achieve the overall outcome of detecting thefts.

The average cost per **investigation**, calculated as a simple average of the unit cost submitted by each supplier (across all segments) is approximately £900[1], with a weighted average[2] of approximately £320. This demonstrates significant variance in the average cost per supplier – with a

[1] This is the arithmetic mean of the cost per investigation calculated for each Supplier from the data submitted. The cost per investigation for each supplier was calculated based on the cost data and number of investigations provided, with site visit costs only applied to the number of site visits.

[2] The weighted average is calculated based on the total costs and total number of investigations across all Suppliers – i.e. reflects a relatively lower cost per investigation for those Suppliers who performed a larger number of investigations.

significantly higher average cost seen for some (but not all) of the suppliers with smaller portfolios / theft targets who responded. This suggests that for at least some parties there is a significant fixed cost element which therefore contributes to a higher unit cost where only a relatively small number of investigations are performed.

The weighted average cost per **confirmed theft** is approximately £2,400 based on the information provided. An average is not provided due to significant variance caused by suppliers with a very low number of confirmed thefts (including with only one confirmed theft).

The average TDV (weighted based on target) for 2024/25 is £742. This clearly lies between the cost per investigation and cost per confirmed theft from the call for evidence information. Therefore a case could be made for an increased TDV under the current arrangements if the view is taken that unsuccessful investigations are part of the overall cost of completing successful investigations. However the anticipated changes under R0173 will make payments for some investigations (including all site visits, which represent over 80% of the overall cost base per the call for evidence) which could risk double counting if such an increase was applied.

There is also some evidence to support a mechanism to allow for the fixed-cost elements of supporting theft investigation, or the potential significant unit cost benefit that may arise from larger scale activities, however the current design of the scheme does not accommodate this. The Code Manager will raise this for consideration via the Theft Issues Group, and there may be merit in revisiting this once the impacts of R0173 can be assessed.

Given the limited number of respondents and information available we conclude that the call for evidence does not support a significant change to the overall level of TDV in the scheme, with the overall level of the current TDV of a similar scale to that seen from the call for evidence. No reduction in the overall TDV is proposed, taking note in particular of the decision by RECCo for the 2024/25 theft year to apply an escalator mechanism to the TDV to provide an increased economic incentive to detect theft as well as the fact that the current level of market theft performance means the overall magnitude of the debit/credit payments in the scheme is reduced.

RELATIVE LEVEL OF TDV BETWEEN SEGMENTS

In addition to analysis of the overall level of TDV we considered, in so far as possible with the available information, the relative size of the TDV between different segments.

For non-domestic customers, as noted, information was available from four of the five respondents at a segment level and hence the relative cost of gas and electricity investigations could be compared. The current TDV for non-domestic gas investigations is 167% of the value for electricity

investigations. The data from the call for evidence indicates the actual ratio is higher, although varying significantly from 230% to over 800%. The weighted average was 395%.

We therefore propose to increase the TDV applied to the Gas Non-Domestic segment, doubling the TDV value (to £4,316.06 in Theft Year 2024/25 values) resulting in a multiple compared to the equivalent electricity value of 295%. Whilst this is below the weighted average increase it is nonetheless a significant change and hence we want to see the effect of this change before proposing a further increase. As outlined in the Theft Target section below we however also propose reducing the Gas Non-Domestic target by 50% (for the reasons set out in the corresponding section). This will maintain the overall pot size and hence would result in a broadly consistent outcome if confirmed theft outcomes remained the same.

Given only one supplier provided a detailed breakdown of costs by segment for the domestic segments we do not consider there is sufficient basis on which to perform analysis of or make changes to the relative size of the domestic TDVs. This includes insufficient evidence to support a need for differential TDVs for the smart and non-smart meter segments introduced this year.

OUTCOME

Based on the above the Theft Detection Values for the 2025/26 TDIS Reporting Year will therefore be set based on the 2024/25 values, except for the non-domestic Gas segment which will see a doubling of TDV value. In addition all values will be adjusted for inflation using the 12 month CPI value published by the Office for National Statistics[3].

Values, calculated using the December 2024 CPI figure published by the Office for National Statistics, will therefore be as follows:

Fuel	Segment	Theft Detection Value (£)
Elec	Domestic	£481.87
Elec	Non-Domestic	£1,498.62
Gas	Domestic	£1,278.61
Gas	Non-Domestic	£4,423.96

[3] Consumer price inflation tables (Office for National Statistics)

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THEFT TARGETS

OVERALL TARGETS

Theft targets for 2024/25 were set informed by the outcome of the Theft Estimation Methodology. This has not been updated since the 2024/25 TTM was produced, however levels of confirmed thefts continue to increase (likely due at least in part to increased efforts by parties) – i.e. there is no evidence that suggests a significant downward shift in the level of theft since the last TEM update.

The outcome of the 2024/25 Theft Year by segment was as follows:

Fuel Type	Customer Segment	Assigned Target 23/24[4]	% of Target Achieved
Electricity	Domestic	29,987	52%
Electricity	Non Domestic	3,974	56%
Gas	Domestic	5,095	69%
Gas	Non Domestic	1,869	16%

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Overall this represents a significant improvement on the prior year (overall target achieved of 53% in 2023/24 compared to 42% in 2022/23) and year-to-date performance for 2024/25 indicates a further increase in identification of confirmed thefts.

As noted in the Theft Detection Value section above, we propose to significantly increase the gas non-domestic TDV value. In order to maintain a consistent pot size and avoid this change merely significantly rewarding a small number of suppliers already significantly outperforming peers we proposed to reduce the gas non-domestic target by 50% (i.e. to maintain a consistent pot size). The rationale for this is two-fold:

- The segment has been the poorest performing since REC go-live, only achieving double-digit percentage performance in 2023/24.
- The size of the gas non-domestic portfolio continues to fall. Measured by number of meter points it represents c. 3% of the gas market (subject to potential inaccuracies in the domestic premise indicator), however the target as set represents 27% of the overall gas target.

Whilst TDIS is measured based on the number of thefts rather than the estimated volume of energy stolen, non-domestic thefts are on average for larger volumes and hence we do not consider reducing the target purely to reflect market size is appropriate – however we believe some reduction is merited.

[4] Sum of individual party targets, i.e. allowing for rounding as per the allocation rules

Given the significantly higher performance in domestic gas theft detection we propose to increase the gas domestic theft target by an equal amount – thereby retaining the overall market target in terms of number of thefts but redistributing between segments based on observed scheme performance and more aligned to market segmentation.

WEIGHTING FOR DOMESTIC METER TYPE SEGMENTS

For 2024/25 target setting a weighting was applied to weight the target towards non-smart meters, which was based on the principle that the level of theft was expected to be lower for Smart meter customers.

Initial results from 2024/25 data suggest that this principle is borne out in the data, with 66% of electricity domestic thefts and 80% of gas domestic thefts relating to non-smart meters. For 2024/25 a weighting of 0.6 was applied for Smart Meters – resulting in an expectation that approximately 58% of thefts would be for non-smart meters (taking into consideration the weighting and relative market share of smart vs non-smart meters).

Given this is based on only the first six months of operation of this new segmentation, and that the approach to targets may influence supplier behaviour to an extent, a material change in weighting is not proposed. However reflecting the significantly more skewed results in the gas domestic segment an adjustment to the weighting to 0.5 for smart meters is proposed – i.e. all other things being equal a non-smart meter is twice as likely to have confirmed theft as a smart meter.

OUTCOME

Taking into account the above changes, targets for the 2024/25 TDIS Reporting Year will continue to be based on the number of confirmed thefts and will be based on applying a weighting from to the targets for domestic meters which will weight targets towards Non-Smart meters.

The Theft Target to be applied by segment based on the split of Smart/Non-Smart Meters to be applied for individual target calculations as per the Attribution Methodology set out below is as follows:

Fuel	Segment	Meter Type	Overall Theft Target
Elec	Domestic	Smart	15,889
Elec	Domestic	Non-Smart	14,111
Elec	Non-Domestic	-	4,000
Gas	Domestic	Smart	2,755
Gas	Domestic	Non-Smart	3,300
Gas	Non-Domestic	-	945

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ATTRIBUTION METHODOLOGY

As per the requirements of the Schedule, targets for each customer segment are allocated to Energy Suppliers based on their market share for that segment. The specific process is as follows, note this includes application of the derogation allowing for adjustment of supplier market share data (RECDER_22) ~~at~~ steps ~~2~~:

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1. Obtain market share data (specifically number of registered meter points by MPID / Short Code and Domestic/Non-Domestic segment) from CSS (note this is the same data as used for RECCo invoicing). The dataset produced from December 2024 will be utilised as the most current dataset available at the time of determining theft targets.
2. Provide Market Share data to Suppliers with a Licence permitting supply of Domestic and Non-Domestic customers. Suppliers to review the market share data and provide details of any adjustment required to relocate meters between the domestic and non-domestic segment (maintaining their overall supply volume) accompanied by a declaration regarding the adjustment. This step is required due to known issues with the data quality of the Domestic Premises Indicator.
3. Obtain market share data (specifically number of registered meter points by MPID / Short Code and Smart/Non-Smart meter types) from EES and GES. The most recent dataset available to December 2024 will be utilised to be consistent with the CSS data used as per step 1.
4. Map data from step (1) to a REC Party level using the REC Party Register.
5. Obtain latest licence type per REC Party published by Ofgem.
6. If a Party has a Non-Domestic-only licence but has a non-zero number of supply points reported as being in the Domestic consumer segment add this number of supply points to the Non-Domestic number of supply points for the Party and set the Domestic total to 0. Also apply any adjustments notified by suppliers as per step (2).
7. Using the data from step (3) calculate the proportion of Smart/Non-Smart meters by MPID / Short Code. For Electricity data this will be limited to Profile Class 1 & 2 MPANs only.
8. Combine the ratio calculated in step (7) and the adjusted Domestic/Non-Domestic data from step (6) and calculate a split of the adjusted registered Domestic meter points between Smart and Non-Smart by applying the ratio to the adjusted Domestic market share.
9. Aggregate data from step (8) to determine number of registered meter points per REC Party split by each incentive pot and use to determine the market share percentage in each incentive pot.
10. Calculate the Party target by applying the relevant market share percentage calculated in step 9 to the total incentive pot target.
11. Round the target down to the nearest whole number less than or equal to the target calculated in step 10 (NB: targets are always rounded **down,** including to a target of zero).

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