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for energy consumers

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Explanatory note providing further information on the priority issue relating to the Common Distribution Charging Methodology (CDCM) discussed during the Distribution Charging update at the March 2024 Charging Futures Forum

On 21 March 2024, at the Charging Futures Forum, we highlighted two issues that are being prioritised under our Distribution Use of System (DUoS) reform work. This explanatory note provides further information on the first of these issues (relating to the CDCM) for interested parties, and details how to get involved in this work.

Executive Summary

In some cases, the CDCM, which is used to calculate DUoS charges, produces forward-looking charges which would recover more revenue than is necessary to meet the allowed revenues. While the charging methodology can address over-recovery to an extent (through a negative residual discounting process), we are concerned by the risk of the methodology failing to produce charges when this over-recovery is excessively high.[1] We understand this has required Distribution Network Operators (DNOs) to alter some model inputs to reduce the level of forward-looking charge recovery. We consider that there is a risk that this issue may require intervention to ensure that DNOs can continue to use the CDCM to set charges for future years. In working collectively with industry to identify optimal solution(s) to mitigate this risk, it is our view that the transparency and predictability of the CDCM can be improved. We plan to assess potential options that would protect consumers against this risk, while ensuring that the DUoS charging regime continues to produce charges in an appropriate manner.

[1] The terms "we", "us", "our", "Ofgem" and "the Authority" are used interchangeably in this document and refer to the Gas and Electricity Markets Authority.

Background

DNOs recover their allowed revenue from customers through DUoS charges. DUoS charges can be divided into two elements: 'forward-looking' charges that are designed to ensure network users receive signals that are reflective of the costs of how and when they use the network, and 'residual' charges that are designed to recover the rest of the relevant DNO's allowed revenue once the forward-looking charges have been levied.

The methodology used to calculate DUoS charges for low and high-voltage connected users is called the CDCM, and is set out in the Distribution Connections and Use of System Agreement (DCUSA).[2] The same approach is used for each distribution network in Great Britain, although final tariffs vary based on DNO-specific factors, including each network's topology, user base, and allowed revenue. In 2024/2025, revenue recovered via the CDCM is due to account for an average of 96.6% of the total revenue to be recovered through DUoS charges.[3] Ofgem has a role in ensuring that the DUoS charging methodologies used by DNOs are in accordance with the relevant DCUSA charging objectives and our principal objective to protect the interests of energy consumers.[4]

The CDCM produces a set of forward-looking DUoS charges derived from a model that apportions the costs of a theoretical new set of network reinforcement (known as the Distribution Reinforcement Model, or DRM) across a wide user base. The amount of revenue recovered from forward-looking charges usually does not replicate the actual costs of operating, maintaining, and improving the network as determined through the RIIO-ED price control process.[5] The relative amounts recovered from forward-looking charges and residual charges is subject to significant change year-on-year.

The following illustrative example is taken from the Southern Electric Power Distribution licence area (SEPD, operated by Scottish and Southern Electricity Networks), and demonstrates that the proportion of revenue recovered from forward-looking charges can extend to an over-recovery of CDCM target revenue from forward-looking charges:

[2] DCUSA Document - DCUSA.
[3] Ofgem analysis of CDCM target revenues, using data from CDCM charging models.
[4] See Condition 13 of the Electricity Distribution Standard Licence Conditions.
[5] For more information on the current price control, see: Network price controls 2021-2028 (RIIO-2) - Electricity distribution price control 2023-2028 (RIIO-ED2) | Ofgem.

Charging year	Proportion of CDCM target revenue recovered by forward-looking charges (%)[6]
2021/22	79
2022/23	68
2023/24	80
2024/25	49
2025/26	121

Table 1: Volatility and surplus in the proportion of forward-looking charge recovery

In cases where target revenue exceeds what would be recovered from forward-looking charges (a "residual shortfall"), a residual charge is added to the fixed daily charge of each Final Demand Site.[7] In circumstances where forward-looking charges recover more than the target revenue of the network (a "residual surplus"), the fixed charge is discounted.[8] Both "revenue-matching" procedures are set out in DCUSA.[9] This procedure cannot cause individual charge components to be less than zero. If the extent of the surplus is so great that the fixed daily charge cannot be further reduced (i.e., because the scaling process would cause the fixed charge to be negative), then a further discount (or "negative adder") is applied to all unit rates (p/kWh).

We have recently become aware of instances where the CDCM can fail to remedy the over-recovery of forward-looking charges, as the extent of surplus is so large that a negative adder reduction in fixed charges and unit rates is not sufficient. In order to produce a set of charges, we are aware that some DNOs have adjusted the gross asset cost of the theoretical new set of network reinforcement from which forward-looking charges are derived.[10] This means that the forward-looking charges produced are lower in value than they would otherwise be, and therefore less likely to result in the over-recovery of revenue.

We are therefore concerned that the CDCM's prescribed method of addressing the over-recovery of revenue through forward-looking charges may be insufficient in some instances, requiring networks to take additional measures (in this case, adjusting the gross

[6] The proportion of CDCM target revenue (less pass-through costs) recovered before residual charges are applied (revenue matching).
[7] DCUSA Section 1A.1 'Definitions and Interpretation'. Final Demand Site means: (a) Domestic Premises; or (b) a Single Site (as defined in Schedule 32) at which there is Final Demand, as determined in accordance with Paragraphs 1.10 and 5 of Schedule 32.
[8] Charges are scaled through a process of addition or subtraction per unit, rather than by the application of a multiplier.
[9] See Sections 89-95, Schedule 16 of the DCUSA document.
[10] Input 103-C of the CDCM charging model. An unpopulated charging model can be found here: DUoS Models - DCUSA.

asset cost). Without appropriate consideration and resolution, we consider that these adjustments could pose a risk to consumers as final charges may be considered less cost-reflective, fair, or transparent.

We recognise that in instances where the amount of over-recovery to be distributed exceeds the ability of the model to discount elements of the charge, the model fails to produce tariffs. We consider that the risk of the CDCM failing to produce outputs should be understood, and where necessary, mitigated against. By working collectively with industry to identify the optimal solution(s) to mitigate this risk, it is our view that the transparency and predictability of the CDCM can be improved.

What have we done so far?

Since this issue has been highlighted to us, we have been working with the DNOs and the Energy Networks Association (ENA) to understand the problem, and the risk of it occurring in the future.

We held a workshop with DNO representatives on 8 March 2024, to explore the drivers of model failure owing to forward-looking charge over-recovery. We heard a consensus view that this problem constituted a material risk to the ability of the CDCM to produce charges, and so was a suitable area for detailed consideration. Some stakeholders further suggested that negative residual charges were distortionary in all cases. A distinction was made between measures that would address the exceptional cases of methodology failure in excessive forward-looking recovery, and measures that would mitigate the need for negative residual charges.

A number of initial potential solutions were tabled. These ranged in scope from smaller changes such as establishing consistency in addressing methodology failure or adding further discounting options, to more wide-ranging proposals seeking to change how tariff elements can recover specific costs.

Our next steps

As set out at the Charging Futures Forum on 21 March 2024, our current plan is to bring forward a consultation on options to resolve this issue in Q2 2024. Ahead of any such consultation, we invite interested stakeholders to share initial feedback that they may have on the issue raised in this explanatory note. In particular, views related to the following points would be welcome:

1. The conditions under which the CDCM can fail to produce a set of tariffs;
2. How the methodology might be reasonably adapted to mitigate against failure states; and
3. Whether a more detailed common approach is needed in situations where discounting tariffs is not enough to produce appropriate results.

We invite stakeholders to contribute to this work by contacting us at DUoS@ofgem.gov.uk with the subject line "CDCM Workstream" by 19 April 2024.