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Consultation

CMP343 – Minded-to decision and draft impact assessment

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We are consulting on our minded-to decision on a proposed change to the way that the transmission demand residual charge is collected from electricity network users. We would like views from people with an interest in electricity network charging. We particularly welcome responses from consumers directly connected to the GB transmission network. We would also welcome responses from other stakeholders and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at **Ofgem.gov.uk/consultations**. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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Contents

Executive summary

In November 2019, we published our Decision on the Targeted Charging Review (TCR) Significant Code Review. Once the Decision is implemented, the costs of operating, maintaining and upgrading the electricity grid will be spread more fairly and, through reducing harmful distortions, the changes will save consumers approximately £300m per year, with anticipated £4bn-£5bn consumer savings in total over the period to 2040.

With respect to transmission demand residual ('TDR') charging, our TCR Decision confirmed that residual charges should be levied on a fixed basis for final demand consumers only. We reached our TCR Decision applying the TCR Principles of: reducing harmful distortions, fairness, and practicality and proportionality.

This consultation focuses on the distributional effects of implementing our TCR Decision for the treatment of the TDR. We assess the options presented to us and whether implementation should be delayed by a year.

The different options presented to us vary according to:

- The approach to flooring the forward-looking TNUoS charge, where demand zones have negative forward-looking charges.
- Determining whether to split transmission-connected consumers into bands for the purposes of TDR charging, and the data these bands are based on.

Based on our assessment, we are minded-to approve the option with a floor at 0 and four bands ("WACM2"), with implementation delayed by a year. We find WACM2 to be most consistent with the TCR Principles, and consider that it will better facilitate the achievement of the Applicable CUSC Charging Objectives and be consistent with our principal objective and statutory duties.

We are proposing to delay implementation by a year, principally to allow consumers more time to respond to the changes in charges relative to those signalled in our TCR Decision.

We are seeking views on our assessment of the distributional impact of the different options and our minded-to position to approve WACM2, with implementation delayed to April 2023. The closing date for responses is 5 July 2021.

1. Introduction

Background

1.1. In November 2019, we published our Decision (and associated Directions) on the Targeted Charging Review (TCR) Significant Code Review.[1] The TCR included a review of how residual network charges are set and recovered. The aim of the TCR was to ensure that these charges are recovered from network users in a way that meets the TCR Principles of:

- reducing harmful distortions;
- fairness; and
- proportionality and practical considerations.

1.2. For the transmission network, the Transmission Owners (TOs) recover their allowed revenue from their customers through Transmission Network Use of System (TNUoS) tariffs. Currently, TNUoS demand charges are a composite of locational (or 'forward-looking') and residual components, subject to overall flooring at 0. The residual component of TNUoS tariff charges is added to the locational component, once forward-looking charges have been calculated, to recover the remaining allowed revenue for network companies set under the price controls.

1.3. In the TCR we decided that residual charges should apply to final demand consumers only and that residual charges will be fixed charges. We also decided to separate demand TNUoS charges into separate residual and forward-looking components. We decided different charging structures for different consumers:

- For domestic consumers, that there will be a single transmission residual charge and a single distribution residual charge within each of the 14 distribution licensed areas.

[1] https://www.ofgem.gov.uk/publications-and-updates/targeted-charging-review-decision-and-impact-assessment

- For distribution-connected non-domestic consumers, that there will be a banded charging structure made up of fixed transmission and distribution residual charges.
    - The total allowed residual revenue for each licensed distribution area is first apportioned to voltage levels based on the total contribution of users at the relevant voltage level to net volumes on each network, and then apportioned further to user segments within each voltage level, to calculate a single, fixed charge for all users in that segment.
    - Non-domestic segment boundaries are set in terms of agreed capacity levels for users at higher voltages (Extra High Voltage (EHV) and High Voltage (HV)) where this data is widely available, and net volume levels at Low Voltage (LV).
    - The band boundaries are set at the 40th, 70th and 85th percentiles of capacity or consumption (for LV only).
- For transmission-connected consumers (all non-domestic) we directed that consideration should be given to whether a single transmission band or alternative banding options would be appropriate.

1.4. Alongside our TCR Decision, we issued a TCR Direction to National Grid Electricity System Operator ('NGESO' or the 'ESO') to bring forward proposals to modify the Connection and Use of System Code ('CUSC') in relation to residual charges, to give effect to the terms of the TCR Decision.[2]

1.5. In our TCR Direction we noted that (p.3):

> *Transmission-connected sites are likely to have a relatively narrow percentage range in size compared to other voltage levels, so the term of the Direction is for a single transmission band. It is acknowledged that there may be small numbers of substantially smaller sites connected, for example as part of complex sites or private networks. Therefore, the Authority considers it desirable that consideration is given to*

[2] https://www.ofgem.gov.uk/system/files/docs/2019/11/cusc_direction_1.pdf

whether alternative options, for example as regards transmission banding are considered preferable.

1.6. In particular, we directed the ESO to consider (p.6):

alternative modification proposals as it considers necessary following an assessment of whether there should be more than one band for TNUoS residual charges for transmission-connected consumers for example on account of issues arising with very small users being connected at higher voltage… having regard to: a. whether there should be a similar approach to banding as for extra-high voltage (EHV) distribution-connected consumers; or b. an exceptions mechanism for very small or complex sites.

What are we consulting on?

1.7. With respect to transmission demand residual ('TDR') charging, our TCR Decision confirmed that residual charges should be levied on a fixed basis for final demand consumers only. We decided that the allocation of charges between segments of consumers should be based on the proportion of net consumption they account for, with a single, fixed charge for all users in that segment.

1.8. NGESO raised five CUSC modification proposals[3] to implement TDR reforms in line with the TCR Decision, including CMP343 which proposes the methodology for TDR charges to be applied only to 'Final Demand' on a 'Site' basis, as well as how to treat negative forward-looking charges and the charging band review process. The ESO proposed implementation of these reforms from 1 April 2022.

1.9. This consultation focuses on the distributional effects of implementing the TCR Decision as it relates to the TDR, based on the options presented to us and whether implementation should be delayed by a year. Specifically, it considers the impacts of the different proposed approaches to flooring the forward-looking element of TNUoS charging and whether and how

[3] Aside from CMP343, these are: CMP334: https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc-old/modifications/cmp334; CMP335 and CMP336: https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc-old/modifications/cmp335; and CMP340: https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc-old/modifications/cmp340

to band TDR charges for transmission-connected final consumers. We explain the options further in Section 3.

1.10. Our minded-to decision is to implement the option that floors the negative TNUoS forward-looking charge at 0 with four charging bands for transmission-connected consumers, delaying implementation by a year to take effect from 1 April 2023.

1.11. We are seeking responses on the following questions:

- Question 1: Do you agree with our assessment of the distributional impacts of the flooring approaches?
- Question 2: Do you agree that, of the flooring options presented, flooring at 0 best meets the TCR Principles and Applicable CUSC Charging Objectives?
- Question 3: Do you agree with our assessment of the distributional impacts of the banding approaches?
- Question 4: Do you agree that, of the banding options presented, four bands best meets the TCR Principles and Applicable CUSC Charging Objectives?
- Question 5: Do you consider that any of the options presented adequately addresses very small users (including those associated with mixed use sites[4])?
- Question 6: Do you agree with our minded-to decision to approve CMP343 WACM2?
- Question 7: Do you agree with our minded-to decision that implementation should be delayed by a year, until April 2023?

1.12. During the development of CMP343, there were two consultations:

[4] The TCR Direction referred to complex sites, but we now use the term 'mixed use sites' as 'complex sites' is used in the BSC for another purpose. Mixed use sites refers to sites with a mixture of Final Demand and non-Final Demand.

- The Workgroup Consultation included the Original Proposal and Workgroup Alternative CUSC Modifications (WACMs) 1-8.

- The Code Administration Consultation additionally included WACM9, which was raised in response to the Workgroup Consultation.

1.13. Neither of these consultations included an assessment of the distributional impacts of the options available. Indeed, neither included a full set of tariffs for each option on a consistent basis to inform the consultation responses.

1.14. The three enabling/supporting modification proposals raised by NGESO that relate to CMP343 (CMP335, CMP336 and CMP340) are also with us for decision. We consider that these proposals underwent adequate consultation in their development, so we are not including them in this consultation. We will make decisions on those proposals alongside our final decision on CMP343.

Impact assessment

1.15. Where appropriate, regulatory proposals are accompanied by impact assessments (IAs) which assess and estimate the likely associated risks, costs and benefits that have an impact on business, individuals and the environment.

1.16. In the IA that supported our TCR Decision ("TCR IA"), we modelled the impact of a single transmission residual charging band with a single approach to flooring (no floor).[5] The static bill impact analysis prepared by our consultants for that IA was developed based on data from publicly available sources and requests from network operators. The data available did not allow the estimation of the exact charges that could be expected as a result of the reforms.

1.17. In producing their assessment, our consultants had to make a range of simplifications and assumptions. The user groups were designed to represent a reasonable spread of different levels and shapes of consumption, but they were not representative of all

[5] https://www.ofgem.gov.uk/system/files/docs/2019/12/updated_tcr_ia_data2.pdf

consumers. As a result, the charges and bill impacts estimated were illustrative to provide an indication of the expected impacts.

1.18. Undertaking a further IA on the flooring and banding options presented, and consulting upon it, will help inform our decision on the modification proposal. The IA reflects our published guidance except where indicated.

1.19. The IA presents analysis to inform the two areas where there are differences between the options in terms of approaches to: (i) flooring of the forward-looking charge, and (ii) banding, including the treatment of very small sites, including those associated with mixed use sites. These two areas also represent differences from the assessment included in the TCR IA.

1.20. The analysis compares the different solutions presented with one another, but not with the status quo. The change relative to the status quo has already been subject to assessment under the TCR IA. All the options are consistent in giving effect to the relevant elements of the TCR Decision within that overall TCR IA. This IA is limited to the options available under CMP343.

1.21. The quantitative aspect is limited to a distributional analysis, focussing on static bill impacts for baseline tariffs. It is supported by qualitative analysis as appropriate.

1.22. The IA is integrated within the consultation document as opposed to producing a separate IA document. This is to aid navigation of where the analysis has informed our minded-to decision. We consider this approach to be proportionate and appropriate in these circumstances given that a number of the general IA elements are not applicable in this case. Alongside this document, we are publishing a spreadsheet containing the baseline tariff impacts for all the options on a consistent basis, at Appendix 1.

1.23. The data that would be used in practice to set any band boundaries and allocate users to bands would be two years' of net consumption data. For setting the band boundaries, CMP343 does not specify the end date for the data to be used. CMP336 provides that allocating users into bands would use the 'latest' data. We consider that any decision that involves the implementation of band boundaries based on consumption would likely need a follow-up housekeeping modification proposal to clarify the time periods for the data to be used.

1.24. For the purpose of this IA, the analysis for the band boundaries is based on the full year of consumption data to March 2020, as the data running to March 2021 includes that yet to be fully-validated. This means that all band boundaries are only indicative. If we decide on an option that involves banding, we will publish an updated IA, with boundaries based on two years' worth of data to March 2021, alongside our final decision. As noted above, clarification of the time periods of data used for any consumption-based banding would be needed in advance of implementation.

1.25. The tariff impacts are based on a consistent set of assumptions that are documented in the accompanying tariff spreadsheet at Appendix 1. We consider these assumptions are appropriate for assessing the distributional impacts of the options. Unlike for our TCR IA, we have not conducted sensitivities. This is because we consider any sensitivities would not undermine our conclusions based on this IA. For example, the size of the residual could vary to a limited extent, but that would not affect the distributional impact between consumers, it would only affect the absolute value of each of the charges.

1.26. We view this IA largely as a refinement of the distributional analysis originally undertaken. We considered the TCR IA to be within scope of Public Sector Equality Duties so these duties were considered. The choice of banding/flooring option has only a small impact on annual fixed tariffs for domestic consumers so will not have appreciable equality impacts. As the TCR was a non-qualifying measure for the Business Impact Target, these modifications fall under the same exclusion. Other aspects we consider, such as Security of Supply impacts, are important in the energy system. The TCR IA quantified these but as we are considering charges for demand users in this consultation, there is no reason to revisit the issue.

1.27. As noted above, this modification concerns the precise approach for implementing TDR reforms, rather than the TCR Decision to direct that these reforms be made. That is, the choice of option here would not affect our overall TCR Decision assessment.

Context and related publications

1.28. As noted above, CMP343 is one of five modification proposals raised by NGESO to give effect to the TCR Decision with respect to TDR reforms.[6] Three other enabling proposals directly relate to CMP343:

- CMP335 – Billing and consequential changes to CUSC Section 3 and 11
- CMP336 – Billing and consequential changes to CUSC Section 14
- CMP340 – Consequential changes for CMP343

1.29. As these proposals depend on the option selected for CMP343, we propose to issue our decisions on these proposals alongside our final decision on CMP343.

1.30. In addition, CMP334 sought to define the terms 'Final Demand' and 'Single Site' in a manner which is consistent with the TCR Direction and the Distribution Connection and Use of System Agreement (DCUSA). We approved CMP334 on 30 November 2020, though it will not have any effect unless and until CMP343 is implemented.[7]

1.31. In addition to the TCR, our Future Charging and Access programme includes Electricity Network Access and Forward-looking Charging reform ('Access reform').[8] Access reform is relevant here as it is considering the forward-looking element of the demand charge, which would be affected by the approach to flooring the forward-looking charges proposed in the CMP343 options.

Consultation stages

1.32. Following this consultation, we will assess responses before publishing a decision on CMP343, alongside decisions on the three enabling modification proposals referred to above.

How to respond

[6] CMP343 replaced CMP332 with an implementation date delayed by one year, to 1 April 2022.
[7] https://www.ofgem.gov.uk/publications-and-updates/cmp334-transmission-demand-residual-consequential-definition-changes
[8] https://www.ofgem.gov.uk/electricity/transmission-networks/charging/reform-network-access-and-forward-looking-charges

1.33. We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

1.34. We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

1.35. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

1.36. You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

1.37. If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

1.38. If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 4.

1.39. If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

1.40. We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

Please send any general feedback comments to stakeholders@ofgem.gov.uk

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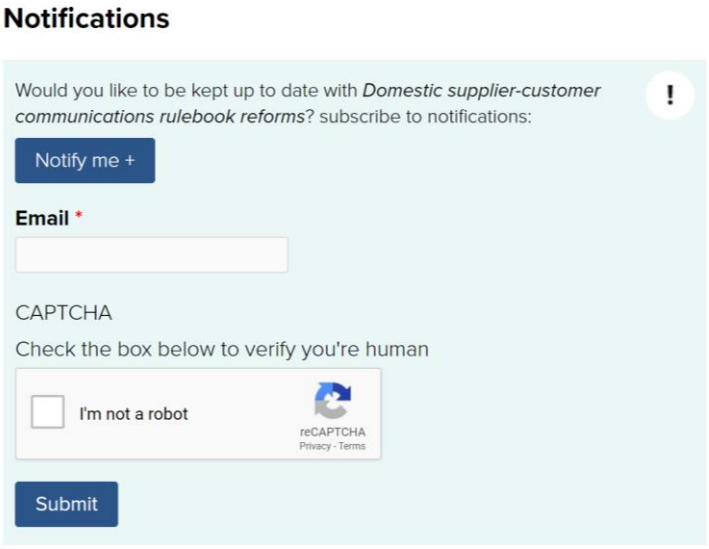

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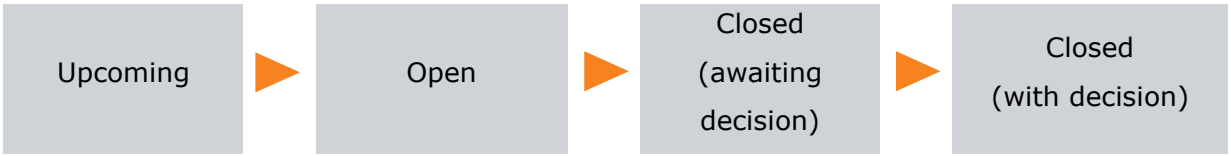

2. The modification proposal and CUSC Panel assessment

Section summary

We describe the original modification proposal and the nine alternative options, which explored different approaches to flooring and banding. The CUSC Panel's voting unanimously supported the option with a floor at 0 and four bands (WACM2) as being better than the existing provisions (baseline).

The modification proposal

2.1. NGESO raised five CUSC modification proposals to implement TDR reforms in line with the TCR Decision, including CMP343 which it raised on 12 May 2020.

2.2. CMP343 proposes the methodology for TDR charges to be applied only to 'Final Demand' on a 'Site' basis, as well as how to treat negative forward-looking charges and the charging band review process. The methodology's key considerations include:

- The approach to flooring the forward-looking TNUoS charge, where demand zones have negative forward-looking charges.
- Determining whether to split transmission-connected consumers into bands for the purposes of TDR charging, and the data these bands are based on.

2.3. The CMP343 'Original Proposal' proposed that a single charging band would be used to charge the TDR to all Final Demand Sites, with the exception of Unmetered Supply sites which would have a volumetric p/kWh residual charge.[9] It would have a floor of 0 applied to the forward-looking charge.

2.4. In addition to the Original Proposal, the Workgroup developed nine Workgroup Alternative CUSC Modifications (WACMs). WACMs 1 to 8 add the following variants to the Original Proposal:

[9] Final Demand Site was defined in the CUSC for CMP344; a definition for Unmetered Supply would be introduced by CMP340.

- creating two or four transmission bands determined by percentiles of consumption rather than a single transmission band;

- alternative options to flooring the forward-looking demand charge at 0 in negative forward-looking TNUoS charging zones.

2.5. WACM9 would create two transmission bands by segregating transmission-connected demand by voltage (above 132kV, or 132kV and below) rather than consumption; otherwise it is the same as the CMP343 Original Proposal. The different variations of the proposals and the outcome of the CUSC Panel vote are summarised in Table 1, below. The flooring and banding options are explained in Section 3.

Table 1: CMP343 modification proposals: key elements and CUSC Panel voting

Proposal	Flooring	Bands	Source data (for bands)	CUSC Panel voting (out of 8)	
				Better than baseline	Best option
Original	Floor at 0	1	N/A	7	3
WACM1		2	Consumption	7	
WACM2		4		8	4
WACM3	No floor	1	N/A	3	
WACM4		2	Consumption	3	
WACM5		4		4	1
WACM6	'Floor with locational adjustment'	1	N/A	6	
WACM7		2	Consumption	6	
WACM8		4		6	
WACM9	Floor at 0	2	Voltage	7	

2.6. All of the options introduce changes necessary for the implementation of our TCR Decision which are consistent across the options. These changes are not subject to this consultation, but are described, for completeness, in the following paragraphs.

2.7. The TDR methodology involves creating seven demand charging groups between which the total TDR 'pot' is apportioned. These seven are made up of five metered distribution-connected demand groups[10] as well as transmission-connected demand and Unmetered Supplies ('UMS').

2.8. The TDR would be split between these groups based on their proportion of total final demand volume. Within each distribution-connected group the TDR would be apportioned by four consumption percentiles. Transmission-connected demand is subject to the banding options, outlined above.

2.9. CMP343 would implement a single volumetric, p/kWh residual charge for UMS. Apart from this, all distribution-connected final demand sites will face a fixed p/site/day residual charge. This includes both Half-Hourly ('HH') and Non-Half-Hourly ('NHH') demand. CMP343 also introduces a forward-looking charge methodology for NHH demand, calculated as the difference between the expected demand forward-looking revenue for a demand zone and HH demand revenue recovered.

2.10. CMP343 was considered together with CMP340 by the Workgroup and CUSC Panel.[11] CMP340 develops the definitions required for CMP343, and so is dependent on which CMP343 solution is chosen. Once we publish our final decision on CMP343 we will publish the corresponding decision for CMP340, as well as for CMPs 335 and 336 as noted above.

CUSC Panel recommendation

2.11. At the CUSC Panel meeting on 1 October 2020, the CUSC Panel unanimously considered that WACM2 would better facilitate the Applicable CUSC Charging Objectives (ACOs)[12] than the Baseline (the existing arrangements under the CUSC). The CUSC Panel recommended by majority that the Original Proposal and WACMs 1, 6, 7, 8 and 9 would better facilitate the ACOs than the Baseline. Of the eight CUSC Panel votes, four considered WACM2 would be the best option, three considered the Original Proposal would be the best

[10] Domestic, LV-connected Non-Domestic with Maximum Import Capacity, LV-connected Non-Domestic without Maximum Import Capacity, HV-connected, EHV-Connected.
[11] The CUSC Panel is established and constituted from time to time pursuant to and in accordance with section 8 of the CUSC.
[12] As set out in Standard Condition C5(5) of NGESO's Transmission Licence, see: https://epr.ofgem.gov.uk//Content/Documents/Electricity%20transmission%20full%20set%20of%20consolidated%20standard%20licence%20conditions%20-%20Current%20Version.pdf

option and one considered WACM5 would be the best option. The CUSC Panel votes for each option are summarised in Table 1, above. We discuss the assessment against the ACOs in Section 3.

3. Minded-to decision and assessment

Section summary

We are minded-to approve the option with a floor at 0 and four bands (WACM2), with implementation delayed by a year. In our assessment of the options, we find WACM2 to be most consistent with the TCR Principles, and consider that it will better facilitate the achievement of the Applicable CUSC Charging Objectives and be consistent with our principal objective and statutory duties. We present a distributional analysis of the impact of the different options and seek views on our minded-to decision.

Questions

Question 1: Do you agree with our assessment of the distributional impacts of the flooring approaches?

Question 2: Do you agree that, of the flooring options presented, flooring at 0 best meets the TCR Principles and Applicable CUSC Charging Objectives?

Question 3: Do you agree with our assessment of the distributional impacts of the banding approaches?

Question 4: Do you agree that, of the banding options presented, four bands best meets the TCR Principles and Applicable CUSC Charging Objectives?

Question 5: Do you consider that any of the options presented adequately addresses very small users (including those associated with mixed use sites)?

Question 6: Do you agree with our minded-to decision to approve CMP343 WACM2?

Question 7: Do you agree with on our minded-to decision that implementation should be delayed by a year, until April 2023?

Minded-to decision

3.1. We have considered the issues raised by the modification proposal and the Final Modification Report (FMR) dated 6 October 2020.[13] We have considered and taken into

[13] https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc-old/modifications/cmp343-and-cmp340

account the responses to the industry consultations on the modification proposal which are attached to the FMR. We are minded-to conclude that:

1. implementation of WACM2 complies with the specific requirements of the TCR Direction and is consistent with the TCR Principles;

2. implementation of WACM2 will better facilitate the achievement of the Applicable CUSC Charging Objectives (ACOs); and

3. directing that the modification be made will be consistent with our principal objective and statutory duties.[14]

3.2. We are minded-to consider that WACM2 will better facilitate ACOs (a) and (e) and have a neutral impact on the other ACOs. We are also minded-to consider that WACM2 performs best against the TCR Principles. We consider that we should consult on our minded-to position and impact assessment before reaching our final CMP343 determination.

Assessment criteria

3.3. As noted above, the key elements of this proposal that are to be decided between are the approaches to flooring the forward-looking demand charge and banding transmission-connected consumers. For the purposes of this consultation, we focus our assessment by theme (flooring/banding) against the criteria: firstly, the TCR Principles, then the ACOs.

3.4. As stated in the TCR Decision (p.32):

> *'our final decision on whether the modification proposals raised should be implemented will be based upon: whether the proposal better facilitates the achievement of the relevant code objectives, compared with current arrangements, and whether the proposal is consistent with our wider statutory objectives and duties, including those under European law.'*

[14] The Authority's statutory duties are wider than matters which the CUSC Panel must take into consideration and are detailed mainly in the Electricity Act 1989 as amended.

3.5. As approaches to flooring/banding were not definitively determined in the TCR Direction, we consider there is also merit in considering these elements against the TCR Principles that informed our TCR Decision. In our TCR Direction (p.7), we directed the ESO to '*have regard to (and to the fullest extent practicable comply with) the SCR Decision Principles [the TCR Principles]'*.

3.6. Our principal objective is to protect the interests of existing and future energy consumers. This closely aligns with all three of our TCR Principles. The TCR Principles that we assessed for our decision on residual charging are:

- Reducing harmful distortions
- Fairness (covering: equity and equality; simplicity; transparency; justifiability; and predictability)
- Practicality and proportionality

3.7. All of the options for CMP343 implement the TCR Direction to introduce a fixed charge to Final Demand users. Therefore, the focus of our analysis against the TCR Principles is a comparison between the options presented rather than with the status quo.

3.8. In summary, the ACOs relate to:[15]

a) Facilitating effective competition

b) Cost-reflective charging

c) Taking account of the developments of transmission licensees' businesses

d) Compliance with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Cooperation of Energy Regulators

[15] The full text for each ACO is included in our summary assessment from p.47.

e) Promoting efficiency in the implementation and administration of the charging methodology

3.9. There is a certain degree of equivalence between the ACOs and the TCR Principles. In particular, reducing harmful distortions is most closely related to ACO (a) which concerns facilitating effective competition, while proportionality and practical considerations is most closely related to ACO (e) which concerns promoting efficiency in the charging methodology. However, for transparency and because the assessment criteria have differences, we have separated out our assessment between the TCR Principles and the ACOs.

3.10. After our assessment of the flooring and banding options against the assessment criteria, we also present a summary of our minded-to assessment of the WACMs against the ACOs.

Flooring approach

3.11. The existing methodology for TNUoS demand charging involves a composite charge made up of both forward-looking and residual elements. The residual component is applied in a uniform way across GB, while the forward-looking element varies by the 14 demand zones (aligning with Distribution Network Operator ('DNO') areas).

- For HH consumers, TNUoS is charged on a £/kW basis for average demand during triads. Triads are the three half-hour periods of highest GB net demand during November to February, separated from each other by a minimum of ten clear days.

- For NHH consumers, TNUoS is a p/kWh charge based on aggregated annual consumption during 4-7pm each day.

3.12. Currently, should the composite demand charge (i.e. forward-looking and residual components together) be negative, it would be floored at 0. At the moment, owing to its relative size, the residual component turns any negative forward-looking element into a positive charge overall, so flooring does not have to be applied and the forward-looking differentiation by demand zone is maintained.

3.13. The extent to which this forward-looking signal materialises for HH consumers depends on their ability to reduce demand during the triad periods. Those able to remove demand entirely during triad periods currently face no TNUoS demand charges regardless of location,

e.g. users with significant onsite generation. Negative demand forward-looking charges are typically in demand zones where there is relatively more generation and less demand than elsewhere.[16]

3.14. The TCR reforms separate out the forward-looking and residual components so that any zone with a negative forward-looking charge would not be combined with a positive residual charge. Instead, the residual would be charged separately on a fixed basis for HH and NHH consumers.

3.15. Consequently, the Workgroup developed three proposals for dealing with any negative forward-looking charges. As noted above, the forward-looking element of the demand charge is under consideration as part of our work on Access reform. As a result, any measure introduced here may be a temporary solution until those reforms are implemented, depending on the implementation dates of this proposal and the outcome of Access reform.

3.16. The options under CMP343 include three options to deal with negative forward-looking charges:

- **floor at 0** - those consumers in a zone with a negative forward-looking signal face a £0/kW or 0p/kWh forward-looking charge and the residual 'pot' for all consumers is reduced. This option is reflected in the Original Proposal, WACM1, WACM2 and WACM9.

- **no floor** - the negative £/kW charge is maintained, resulting in a larger residual pot than for floor at 0. This is because, with no floor, the forward-looking 'credits' to areas with a negative forward-looking charge need to be recovered from the TDR, adding to the total TDR 'pot'. This option is reflected in WACMs 3-5.

- 'floor at 0 with a locational adjustment' ("**locational adjustment**" for the purposes of this document) - those consumers in a zone with a negative forward-looking signal, face a £0/kW or 0p/kWh forward-looking charge. Residual charges in affected areas are reduced in a way that attempts to preserve this forward-looking signal, with the negative £/kW or p/kWh forward-looking charge converted to a lower fixed p/site/day residual. Areas with a positive forward-

[16] Final TNUoS Tariffs for 2021/22: https://www.nationalgrideso.com/document/186176/download

looking signal face a higher residual charge. This option is reflected in WACMs 6-8.

3.17. The approach to the flooring question also affects the TNUoS charges faced by distribution-connected Final Demand consumers (unlike the approach to banding). This is because it affects the share of the TDR for all consumers in each DNO region.

3.18. There is a distributional impact on residual charges between either of the flooring options and no flooring approach, with an additional c.£200m (or c.10% of the total TDR) to be recovered from the residual when no floor is applied. As a result, the residual charges are uniformly (all bands and zones) c. 10% higher with no floor than with floor at 0. Under the locational adjustment approach, there is also differentiation in the residual charge by DNO region. Full data on the charges under the different options, by DNO area and voltage level, is available at Appendix 1.

3.19. Table 2, below, summarises the impact of the different approaches. It includes the equivalent data to that presented in the TCR IA, which was modelled based on a 'no floor' approach. The differences between the TCR IA and the current CMP343 'no floor' options principally relate to the assumptions about consumption volumes and customer numbers in different bands at the time of the TCR IA.

3.20. Table 2 considers only a single band for transmission consumers to illustrate the regional differences. The impact of different banding approaches on charges is considered in the next section. Under the locational adjustment approach, the table includes the maximum and minimum charge by DNO region; all of the lowest charges would apply to consumers in Northern Scotland, while the highest charges are for a mixture of regions in south Wales and in England south of the midlands, most commonly London. These regional differences are explored more fully in Table 3, below, and fully documented in Appendix 1.

3.21. Under the floor at 0 and no floor approach, each site has a consistent TDR charge across GB (no regional variation), according to voltage level and banding (where banding is applied), with no floor the TDR is c.10% higher than with a floor at 0. The distinction between floor at 0 and no floor would have a distributional impact regionally, but it would not be manifested in the residual charge. Instead, for areas with a negative forward-looking charge, with a floor at 0 approach, the forward-looking signal would be dampened. The largest reduction in the forward-looking signal is for those with the most negative forward-looking charge – the two regions in Scotland.

3.22. The distributional impact of flooring/not flooring can be partly represented by the locational adjustment approach. In this instance, the regional differentiation that is reduced from flooring the forward-looking charge at 0 is approximated in the residual charge. As a result, there is a direct differential impact in the residual charge faced by Final Demand consumers in the 14 different demand zones. This includes domestic consumers where the TDR varies from £6/yr in Northern Scotland to £30/yr in Southern England. Similarly, a transmission-connected consumer in Northern Scotland would pay c.£338k/yr compared with c.£772k in South Wales.

Table 2: estimated TDR tariff impact of flooring options

TDR £/site/year		Flooring approach			
		Floor at 0	No Floor	Locational Adjustment	
		GB-wide		Lowest (All N. Scotland)	Highest (Various)
Domestic		27	30	6	30
LV No MIC	Band 1	12	13	2	13
	Band 2	65	71	18	72
	Band 3	156	171	47	172
	Band 4	488	535	179	534
LV MIC	Band 1	848	929	299	967
	Band 2	1,544	1,692	498	1,724
	Band 3	2,476	2,713	775	2,784
	Band 4	5,635	6,176	1,701	6,450
HV	Band 1	3,658	4,009	2,671	4,489
	Band 2	12,780	14,006	5,186	14,441
	Band 3	26,067	28,567	13,067	29,454
	Band 4	68,297	74,848	32,727	77,601
EHV	Band 1	30,398	33,314	23,714	31,442
	Band 2	156,057	171,026	86,815	166,873
	Band 3	328,651	360,175	142,584	357,715
	Band 4	817,126	895,504	330,754	893,097
Transmission	Single band	675,605	740,408	338,373	772,328
Unmetered	p/kWh	0.79	0.87	0.14	0.87

3.23. Table 3, below, compares the average difference in the residual charge with a locational adjustment compared with a floor at 0, grouping regions according to the extent of the difference. The locational adjustment approach would have a larger impact in reducing TDR charges for the minority of consumers in zones with a negative forward-looking charge;

and a smaller impact on the majority of consumers who would face higher TDR charges as a result.

Table 3: estimated impact of locational adjustment (relative to floor at 0) on residual charge by demand zone

Demand zone	Average locational adjustment residual charge (across all users) relative to floor at 0
North Scotland	-58%
South Scotland	-45%
Northern England	-15%
North West England	-2%
Yorkshire and North Wales & Mersey	1-3%
East Midlands, West Midlands, Eastern, Southern, South West England and South Wales	5-9%
London and South East England	10-11%

Flooring assessment against the TCR Principles

3.24. We formulated the TCR Principles to inform our assessment of reforms to residual charging (and non-locational Embedded Benefits[17]). We note that the approach to flooring affects forward-looking signals, not just the residual charge, so acknowledge that the assessment of these options against the TCR Principles will only present part of the picture. However, as noted above, we also present our separate assessment against the ACOs below.

3.25. We consider options which apply a floor at 0 to the forward-looking charge (without a locational adjustment) to, on balance, better facilitate the TCR Principles than the other options.

Reducing harmful distortions

3.26. The main distortions for residual charging that we were seeking to reduce through the TCR involved behavioural responses by users to reduce exposure to residual network charges

[17] 'Embedded Benefits' is the name given to the differences in charging arrangements between Smaller Distributed Generation (<100MW) connected to the distribution network, compared to larger generators (>100MW) connected to either the distribution or transmission network.

that are not intended to send a forward-looking signal (e.g. installing onsite generation). In giving effect to our TCR Decision, all the options presented help reduce these distortions to some degree. However, there are other issues that differentiate our assessment of the flooring options in terms of reducing harmful distortions.

3.27. The no floor option has the potential to introduce a distortion that doesn't currently exist. If negative forward-looking charges are not floored, it could incentivise demand in these zones at a time of system peak, potentially increasing system costs, e.g. by adding to constraints on the distribution network in peak periods.

3.28. This could occur because introducing a fixed residual charge means that the forward-looking signal is not dampened by the residual in terms of consumption at times of peak. For instance, the 2021/22 HH demand tariffs for North Scotland is £20.4/kW, of which -£32.9/kW is the forward-looking and £53.2/kW is the residual. Currently, this composite charge, which is based on demand at triad, is positive because of the residual, and is anyway subject to a floor at 0. Separating out a fixed residual charge, with no floor, would result in those sites receiving a forward-looking credit of £32.9/kW, and consumption at peak would not affect the residual charge.

3.29. By way of a further example, a transmission-connected demand site in South Scotland (forward-looking charge of -£23.9/kW), with capacity of 25MW could be credited c.£600k for TNUoS if demanding at full capacity for all triad periods. To further illustrate this point, a Final Demand consumer in North Scotland consuming at triad would face an effective unit credit of c.£22,000/MWh, though the actual signal would be significantly dampened given that triad periods are not announced in advance. If, for example, a user thought there was a 2% chance of a half-hour being a triad period then they would be facing an expected unit benefit of £146/MWh from consuming. We note that decisions to consume at peak will also take into account other costs such as balancing charges and wholesale prices, but consider network charging-related credits of this magnitude could influence consumption decisions.

3.30. We have been unable to model the likely overall impact on levels of demand during peak with any accuracy given the necessary assumptions about the ability of demand to flexibly increase their load. The options involving flooring the forward-looking charge at 0 avoid introducing this (or any other) potential distortions.

3.31. The locational adjustment would dilute the residual charge by introducing regional variation in TDR charges that are not related to residual cost recovery. Instead, the variation would simply be a consequence of translating a forward-looking charge on a unit basis (£/kW

or p/kWh) to the residual on a fixed charge basis (p/site/day). We introduced a fixed residual charge in part to avoid sending behavioural signals. So, to mimic part of the forward-looking signal on a fixed charge basis would appear illogical. It is an approach that has the potential to introduce a distortion to the residual charge, which would not be present with the floor at 0 and no flooring options.

3.32. Overall, we consider that the floor at 0 options best meets this principle, as it does not introduce potential new distortions, while also reducing the existing distortion by removing the forward-looking signal from the TDR.

Fairness

3.33. As noted above, we consider a number of factors in our assessment of fairness: equity and equality; simplicity; transparency; justifiability; and predictability.

3.34. In terms of **simplicity, transparency** and **predictability,** the locational adjustment option performs worst. As a charge with regional differentiation that relies on a series of assumptions to convert a unit charge into a fixed charge, it would introduce complexity, reduce transparency and make predictions more difficult. The factors that influence the calculation of charges for the other options are more straightforward and are broadly equivalent to one another (the size of the TDR 'pot' would be different but the process followed from that point would be the same with floor at 0 and no floor). We therefore consider that the floor at 0 and no floor options better meet this principle.

3.35. The floor at 0 and no floor options also better meet the **equality** principle, with a common charge across GB for the relevant voltage levels (and bands if applicable). Indeed, the locational adjustment option introduces an outcome that is inconsistent with one of our TCR decisions, of a single TDR charge across all domestic consumers, as it would instead vary by the 14 DNO regions.

3.36. We note that, as a result of Distribution Use of System ('DUoS') residual charges, there is already a differential residual charge by distribution area; the locational adjustment would be consistent with this level of differentiation. The regional pattern in distribution residual charges is different to that for the TDR under the locational adjustment approach. Overall, the locational adjustment would serve to increase the differentiation in residual charges faced by consumers in different DNO regions.

3.37. With respect to vulnerable consumers, we noted in the TCR Decision (p.73):

> *Significantly, we continue to believe that the network charging structure is not the right vehicle to address vulnerability concerns because of the inability to target support accurately onto those consumers who most need it, and the inherent trade-offs involved. We are conscious of the potential impact on affordability, particularly for consumers who may use less electricity or are on a lower income, but consider that more targeted approaches, such as retail market or wider policy solutions would be better suited to mitigating any concerns with the effects of changes to the recovery of residual charges. Over time, we expect the majority of domestic consumers to benefit from our reforms overall.*

3.38. We consider the above statement applies to all the flooring options for CMP343, noting that for domestic consumers the highest modelled charge would be £30/yr with no floor, which is lower than the £34/yr assumed in the TCR IA.

3.39. We consider the **equity** element of the fairness principle is more relevant for our fairness assessment in relation to banding, below.

3.40. Forward-looking demand TNUoS charges are under consideration as part of our ongoing Access reform. Notwithstanding that, we can consider the **justifiability** of the options based on the existing charge design. If we assume that a negative forward-looking charge sends a useful signal, then it is more justifiable to have a residual charge design that accommodates this signal. Flooring at 0 reduces that forward-looking signal for areas with a negative forward-looking charge. The other two options maintain this signal, but with the locational adjustment a diluted approximation of that regional differentiation. It is diluted because the unit based forward-looking is converted to a fixed charge based on a set of assumptions and becomes a signal that users cannot readily respond to.

3.41. Overall, we consider that the no floor option appears to perform best in our assessment of fairness, while the locational adjustment option performs worst.

Practicality and proportionality

3.42. The locational adjustment approach would introduce 14 times as many tariffs as the other options, with tariffs varying by the 14 DNO regions rather than being consistent on a GB-wide basis. As such, this approach would result in the most significant system changes, which we consider to be disproportionate, particularly given that this solution (if implemented) may only be in place for a short period given that forward-looking charges are under review as part of our Access reform. Furthermore, there is no mechanism within the

current proposal to redistribute revenues should flooring be applied to negative residual charges that can occur under the locational adjustment approach. Indeed, modelling suggests that a negative residual would occur in one region if the locational adjustment is combined with two bands (WACM7).[18] We consider the locational adjustment option to be disproportionate.

3.43. The other two approaches are relatively straightforward by comparison. The main difference is that the floor at 0 option would avoid disruption by maintaining the status quo, by flooring demand tariffs. Unlike for the locational adjustment, the floor at 0 and no floor approach mechanisms would not introduce complex system changes that may need to be unwound subject to the outcomes of the Access reform.

3.44. Overall, we consider the locational adjustment option to perform worse than the other two options, and for the floor at 0 option to perform best, in our assessment of practicality and proportionality.

Flooring assessment against the ACOs

3.45. We consider options which apply a floor of 0 to the forward-looking charge to, on balance, better facilitate the ACOs than the other options. Proposals which floor at 0 remove the opportunity and incentive for some demand users to increase their consumption during peak periods to lower their contributions to TNUoS charges. We consider a floor at 0 would reduce inefficient use of the network and potential distortions in competition between different network users.

3.46. As such we consider flooring the forward-looking charge at 0 to be beneficial to facilitating competition in the purchase of electricity and positive against ACO (a) by avoiding perverse incentives to demand users. Conversely, options without a floor are negative for competition by introducing the potential for perverse incentives.

3.47. We recognise that flooring at 0 in theory reduces the strength of the cost-reflective signal of the forward-looking charge, but avoids introducing potentially distortive negative charges. On the other hand, no floor would preserve the forward-looking signal but is

[18] With WACM7 there would be a (unfloored) negative TDR (Northern Scotland, Band 1) due to relatively high volumes from a larger site pulling a large share of the adjustment value into this tariff and tipping the tariff negative. This is shown as a '0' floored value in Appendix 1.

potentially distortive. By incentivising demand during peak periods, some consumers may respond by unnecessarily increasing consumption, causing network constraints. On balance, we consider both flooring and no flooring options to be neutral against ACO (b).

3.48. The options involving a locational adjustment maintains the forward-looking signal for cost-reflectivity but does this through a fixed residual charge that is not intended to be cost-reflective. Therefore, we also consider these options to be neutral against ACO (b).

3.49. Options that floor the forward-looking charge at 0 without an adjustment are the closest to the current status quo, which floors the composite demand TNUoS charge. We consider options which floor at 0 without an adjustment to provide the least disruption and potential inconsistency in charging arrangements, which may also provide a more stable long-term investment signal, facilitating competition. In this respect, the floor at 0 options are positive against ACOs (a) and (e).

3.50. The proposals which apply a locational adjustment introduce a new, complex process into tariff-setting and would cause the most disruption for what may ultimately be a short-term solution. We see unnecessary complexity and disruption as a potential barrier and burden for smaller suppliers (for whom system changes have a relatively larger impact), which is negative against ACOs (a) and (e). From an efficiency and fairness perspective, we consider that no flooring options provide simplicity, but introduce disruption from the current status quo and uncertainty against the potential future Access reform. On balance, we consider the no flooring options to be neutral against ACO (e).

3.51. We consider all the options to be neutral against ACOs (c) and (d).

3.52. In summary, we are minded-to consider:

- Options which floor the forward-looking charge at 0 to better facilitate ACOs (a) and (e)
- Options with no floor to be negative against ACO (a) and neutral against ACO (e)
- Options with a locational adjustment to be neutral against ACO (a) and to be negative against ACO (e)
- All the flooring options to be neutral against ACOs (b), (c) and (d).

Table 4: minded-to assessment of flooring options against the ACOs

Proposed Solution	Does the proposal better facilitate the ACO?				
	ACO (a)	ACO (b)	ACO (c)	ACO (d)	ACO (e)
Floor at 0	Yes				Yes
No Floor	No				
Locational Adjustment					No

Neutral assessments not shown

Banding approach

3.53. In our TCR Decision we directed that a single band should be applied for the TDR for transmission-connected consumers. But in our TCR Direction, we did direct the ESO to consider (p.6):

> *'such alternative modification proposals as it considers necessary following an assessment of whether there should be more than one band for TNUoS residual charges for transmission-connected consumers for example on account of issues arising with very small users being connected at higher voltage…having regard to:*
>
> > *a. whether there should be a similar approach to banding as for extra-high voltage (EHV) distribution-connected consumers; or*
> >
> > *b. an exceptions mechanism for very small or complex [mixed use] sites.'*

3.54. Our TCR Decision was partly based on the assumption that (p.42):

> *Consumers connected to the transmission network were thought to span around one order of magnitude range in size - less than other groups.*

3.55. In fact, data provided by the ESO since the TCR Decision reveals that transmission-connected consumers vary in annual consumption from less than 5GWh to more than 500GWh, a multiple of more than 100 between the lowest and highest consumers. This is relevant for the consideration of banding for transmission-connected consumers.

3.56. In contrast, distribution bands typically cover a multiple of around two, with the top of the band roughly double the capacity or consumption of the bottom of the band. For example, the third banded charge (of four bands) for distribution-connected EHV consumers captures

capacities ranging from 12MVA to 21.5MVA, a multiple of less than two. This illustration demonstrates that a single band for transmission would lead to a far greater variety in consumer size than for a given band at EHV, the voltage level of connection most similar to transmission. This contrast, and the overall range in transmission consumer size, informed the Workgroup's exploration of appropriate banding approaches.

3.57. Our TCR Direction included references to the need to consider consumers connected to very small and mixed use sites. This included a direction to consider (i) a mechanism for identifying Final Demand consumers within a private wire or mixed use site for the purpose of determining their applicable TDR contribution; and (ii) appropriate banding arrangements or an exceptions mechanism for very small sites, including those within such mixed use sites.

3.58. CMP334 was concerned with how to define and identify Final Demand sites. In our decision on CMP334 we noted that the Workgroup:

> *'failed to bring forward a proposal that covers private wires and complex* [mixed use] *sites. …our view is that this obligation of the TCR Direction has not been discharged and will continue to apply notwithstanding our decision on this proposal.'*

3.59. As a consequence, the ESO has brought forward two new proposals to cover identifying consumers within private wire and mixed use sites, referred to as sites with a mix of Final and non-Final Demand.[19] The proposals are about identifying whether or not consumers within such sites are Final Demand and as a consequence should be subject to the TDR.

3.60. We note that Final Demand consumers within a mixed use site or private wire may be very small compared with most transmission-connected Final Demand consumers. CMP343 concerns approaches for potentially banding Final Demand consumers, including any very small consumers, irrespective of whether or not they are part of a mixed use site. We consider that the identification of Final Demand on mixed use sites is being considered in the new ESO proposals. For the purpose of this consultation, our focus is on the treatment of very small sites, including those that are part of a mixed use site. Subsequent references to very small users capture those that are part of a mixed use site.

[19] CMP363 and CMP364 - https://www.nationalgrideso.com/industry-information/codes/connection-and-use-system-code-cusc-old/modifications/cmp363-cmp364

3.61. Unlike for distribution-connected consumers, there is no transmission equivalent to a maximum import capacity, which is used to derive bands for distribution consumers with an agreed capacity. The Workgroup considered different sources of data for separating out bands. In addition to a single band, the Workgroup ultimately made proposals to separate consumers based on annual net consumption or voltage level (excluding transmission connection assets).

3.62. The single band approach is reflected in the Original Proposal, WACM3 and WACM6.

3.63. The Workgroup proposed two different banding sets based on consumption:

- Two bands, with a top band for the largest 15% of consumers and a separate band for the remaining consumers. This option is reflected in WACMs 1, 4 and 7.

- Fours bands, with a split that mirrors that at distribution, separating bands at the 40th, 70th and 85th percentiles. This option is reflected in WACMs 2, 5 and 8.

3.64. The Workgroup proposed two bands for the voltage level delineation, separating those connected at 132kV and below from those connected at above 132kV. This is WACM9.

3.65. Unlike for flooring, the approach to banding will only affect charges for transmission-connected Final Demand consumers. Our TCR IA showed that the reforms would increase overall TNUoS charges for these consumers; the CMP343 banding options affect the distribution of this overall increase between different types of user.

3.66. Table 5, below, summarises the impact of the different approaches, showing the bands under a floor at 0 and no floor approach (the charges for no floor are uniformly c.10% higher than for floor at 0). The table also includes the highest and lowest charges under the locational adjustment approach to show the differential impact across bands and regions. Whether or not a charge is applied in the region is contingent upon there being consumers of a certain size in that region, so the regions with the lowest and highest charges in each band vary as a result, based on existing consumers.

3.67. For example, with the most negative forward-looking charge, the lowest locational adjustment charge would be North Scotland for each banding approach. But North Scotland does not have Final Demand transmission-connected consumers in the top 15% or bottom 40% by annual consumption. Southern Scotland, as the region with next lowest forward-looking charge accounts for the lowest charge in the top 15% and bottom 40% bands.

3.68. Analysis of these impacts on a consistent basis was not included in the FMR. Full data is available in Appendix 1.

Table 5: estimated TDR tariff impact of banding options

TDR £/site/year			Flooring approach			
			Floor at 0	No Floor	Locational Adjustment	
Banding approach	Approx. upper bound (GWh/yr)	Band	GB-wide		Lowest (various)	Highest (various)
One Band			676k	740k	338k	772k
Two - consumption	140	Band 1	356k	390k	0	417k
		Band 2	2,558k	2,803k	1,241k	2,756k
Four – consumption	30	Band 1	121k	133k	57k	133k
	85	Band 2	431k	473k	181k	478k
	140	Band 3	848k	930k	337k	944k
		Band 4	2,558k	2,803k	1,241k	2,756k
Two - voltage	<=132kV	Band 1	366k			
		Band 2	812k			

3.69. Under a single band, all users would pay the same charge across GB (or by DNO region with the locational adjustment approach). With a floor at 0 approach, the charge would be c.£675k/year, or c.£740k/yr with no floor. This compares with c.£550k in our TCR Decision document, which was based on a single band with no floor, with the difference principally owing to more up-to-date data on consumption and customer numbers in each band.

3.70. Introducing bands brings variability to the charges depending on consumer type. With banding by consumption and flooring at 0, the top 15% of consumers would pay c.£2.56m/year. This would represent those consuming more than around 140GWh/year and include the largest consumers, consuming over 500GWh/year. With a locational adjustment, the charge for this top band would vary from to c.£1.24m for those in the area with the most negative forward-looking signal, to up to c.£2.75m for those in areas with the most positive forward-looking signal.

3.71. With a two-band approach by consumption, the remaining 85% of consumers would pay c.£356k (floor at 0) or c.£390k (no floor). The regional variability in residual charges for this group, introduced by the locational adjustment approach, would range from £0 (this is a floored negative value) to c.£417k, depending on location.

3.72. Of the proposals under CMP343, the two-band approach based on voltage would only apply with no floor. In this instance, the difference between the two bands is smaller. About 70% of consumers in the top band would pay c.£800k with the remaining 30% paying c.£350k.

3.73. A four-band approach (using consumption data) would bring the greatest variability in charges by consumer size. With a floor at 0 approach, the smallest 40% of consumers would pay c.£120k, compared to c.£2.56m for the largest 15%. The middle two bands would encompass the 30th-70th percentile consumers, paying c.£431k, and the second largest 15% (70th-85th percentile consumers), paying c.£850k. Again, the locational adjustment approach would introduce regional variation; regions with the lowest charges would face less than half that for the floor at 0 approach, and the regions with highest charges would be about 10% higher than the floor at 0 approach.

3.74. Our minded-to position is to implement a four-band approach. This would introduce significantly different charges to those on which we consulted as part of the TCR Decision. As a consequence, our minded-to position is to delay implementation by a year, to April 2023. We welcome views on this position, and we discuss it further under Implementation Date, below.

Banding assessment against the TCR Principles

3.75. In addition, to the components of the TCR Principles highlighted above, in assessing the banding approach, we have also assessed the options on a comparable basis to that applied to our TCR Decision on banding for distribution residual charges. This is summarised in Figure 1, below.

Figure 1: Applying TCR Principles to non-domestic customer segmentation for refined fixed charge

Reducing harmful distortions	• Lowest number of segments needed to objectives • Segments avoid splitting dense clusters, of similar user types where possible • Sufficient users per segment to avoid gaming, volatility and commercial considerations (such as the confidentiality of EDCM charges)
Fairness	• Broadly consistent upper limit on range of user types facing the same charge across segments • Segments well balanced with a broadly consistent basis, aiming to distinguishing user groups with significantly distinct characteristics, or clear reasons for differences. • Tangible, justifiable link to energy usage in the basis for segment boundaries
Practicality and proportionality	• Lowest number of segments necessary to achieve objectives • Broadly consistent basis for segments for simplicity • Uses available data and any system changes are proportionate • Distributional effects and complexity are no greater than necessary to achieve objectives

The EDCM is the charging methodology for customers connected at extra-high voltage on the distribution network.

3.76. We consider, on balance, that the four-band approach best meets our TCR Principles. We consider this to be the fairest approach, which limits harmful distortions and can be implemented in a proportionate manner, while allowing a more refined approach by differentiating by consumer size. We do note some of the advantages of a single band, particularly equality, simplicity and practicality. However, the four-band approach is the most equitable of the options, in particular with respect to very small users.

Reducing harmful distortions

3.77. Of the options available, the single band introduces the lowest number of segments, while four bands has the highest number. Even with four bands there is a sufficient number of users per segment because the banding is derived from and applied to the same population of all transmission-connected Final Demand users, with a minimum of 15% of consumers in the smallest bands.

3.78. In light of information on the distribution of transmission-connected demand users, the four-band approach helps to ensure that similar types of users are grouped together with smaller differences between consumers within a given band. Though we note that any approach to drawing boundaries across a population means that there is some scope for similar users to be separated by band boundaries. A single band results in large differences in types of users falling within the same segment, while a two-band option based on consumption, groups similar users in the top band, but 85% of users continue to be grouped together.

3.79. The voltage delineation does not appear to correlate with either consumption or capacity of users, so those bands do not group similar types of user on these measures of size. We explore the characteristics of the user groupings further under fairness, below.

3.80. The banding based on voltages could be seen to introduce a new distortion, between consumers connected in Scotland and those connected in England and Wales. As 132kV is a distribution voltage in England and Wales, there may be less opportunity for transmission-connected consumers in England and Wales to be in the lower band.

3.81. As noted in our TCR Decision, as part of our TCR policy development, our Office for Research and Economics (ORE) considered how large users might respond to changing the way in which residual charges are recovered, particularly if they have a large onsite

generation capability. We wanted to consider the potential likelihood of such users disconnecting from the network if new residual charges were introduced which were unrelated to net volumetric usage of electricity. This work concluded that large scale disconnection was unlikely, but identified a number of considerations which we have taken into account.[20]

3.82. A banded approach based on consumption introduces a top band with annual TDR charges of c.£2.56m with a floor at 0. In our analysis to inform our TCR Decision we considered a capacity-based charge, which we ultimately decided not to pursue. Our analysis of such an approach identified that a capacity-based charge could result in annual charges of over £4m for the largest transmission consumers, compared with c.£2.56m with a four-band approach.

3.83. We consider it instructive to compare the proposed TDR costs of the largest users with a four-band approach to other energy costs. Though the TDR is not designed to be a £/MWh charge, the charge can be converted to that basis for comparison with other unit costs. With four bands, the largest 15% of consumers would face TDR charges equivalent to £4/MWh (for the largest) to £18/MWh (for the smallest in the top band). This compares with:

- A typical wholesale price of c.£25-£50/MWh.[21]
- Gross environmental taxes and levies of c.£44/MWh,[22] which with exemptions, could be as low as £13/MWh for industries eligible for all available exemptions.[23]

3.84. At the other end of the scale, a single- or two-band charge has a relatively high charge for the smallest users. Assuming a floor at 0, the annual charge would be c.£350k with a two-band approach (based on consumption) or c.£675k with a single band. (Table 7, below, shows the ranges with different banding options as effective £/MWh rates.) By comparison, the range of TDR charges for all EHV consumers is c.£30k to c.£815k depending on band (assuming a floor at 0).

3.85. We have assessed the size of residual charges between transmission-connected and distribution-connected consumers, making some assumptions about capacity and typical DNO

[20] https://www.ofgem.gov.uk/system/files/docs/2018/11/annex_6_-_large_users.pdf
[21] ICIS baseload day-ahead historical data, Jul-20.
[22] BEIS energy taxation for 'extra-large' users, Jul-Dec-19, https://www.gov.uk/government/statistical-data-sets/international-industrial-energy-prices
[23] Ofgem internal analysis.

region residual charges. This comparison considers only residual charges, with different transmission banding scenarios. Transmission-connected consumers would face TDR charges only, while distribution-connected consumers would also face distribution demand residual charges. The analysis assumes a floor at 0 (and no locational adjustment). Our analysis is static, ie, it does not take into account the fact the proportion of the TDR to be recovered at different voltage levels is affected by the total consumption at the voltage level. If, for example, a site re-connected at a different voltage level that would affect the total TDR to be recovered (and consequent charges) for both its old and new voltage level of connection.

3.86. With a single or two-band approach (based on consumption), the majority of the smallest transmission-connected consumers (bottom 40% by consumption), could face lower residual charges if they re-connected to the distribution network. With four bands, the majority of this group would face lower residual charges if they continued to stay connected at the transmission level.

3.87. On the other hand, all the largest 15% of transmission-connected consumers would face lower residual charges if they re-connected to the distribution network than with a two- or four-band approach.

3.88. For the middle groups of transmission-connected users (40-85th percentiles), a two-band approach has a bigger influence on relative charges than four bands. With a two-band approach, a minority of 40-70th percentile consumers, and all in the 70-85th percentile would face higher residual charges if distribution-connected than if transmission-connected.

3.89. Based on the estimated capacity levels, Table 6, below, summarises the residual charges under different banding approaches with the broadly equivalent charges for a distribution connection in a typical DNO region. The biggest difference in residual charges is between the transmission top band and the EHV top band, with a larger proportion of transmission-connection users in the very high capacity/consumption category than distribution-connected.

Table 6: comparison of estimated residual charge between equivalent bands for transmission-connected and distribution-connected users in Northern PowerGrid Northeast

Transmission-connected			EHV-connected		
Transmission band (4 bands by consumption)	**Lower threshold (GWh/yr)**	**TDR**	**Equivalent EHV distribution band**	**Lower threshold (MVA)**	**Total distribution-connected residual (DUoS + TDR)**
Band 1		£120k	Band 2	5	£195k
Band 2	30	£430k	Band 3	12	£420k
Band 3	85	£850k	Band 4	21.5	£1.14m
Band 4	140	£2.56m			

3.90. As noted in the TCR Decision, the design of the fixed charge limits the ability of users to change bands regardless of whether they are based on voltage or annual consumption. This is because users would have to change their voltage of connection, or significantly change capacity or consumption to move bands within a price control period (five years).

3.91. Overall, with respect to reducing harmful distortions, there are pros and cons to either the single-band or four-band approach. The four-band approach is better able to group similar users together. On the other hand, the single band groups all users together and leads to relatively high charges for the smallest users, which could potentially be addressed by an exceptions mechanism for the smallest users. The two-banded options offer an alternative method that does not appear to address these issues for either the smallest or largest users, with the top band facing the same charges as with the four-band approach, and the smallest users still facing relatively high charges.

Fairness

3.92. In assessing **equity and equality**, a single band approach is positive for equality as all users face the same charge (with either a floor at 0 or no floor approach; a locational adjustment would introduce regional differentiation in the residual charge). However, a single band reduces equity as it does not recognise the differences between consumers connected at the transmission level.

3.93. The TDR is split across all users according to net consumption. On aggregate, the TDR is about £8/MWh and this weighted average is common to all bands on a GB-level, across all voltage levels, regardless of the number of bands. However, with a single charge per band, within any given band the smallest users will be facing the highest effective £/MWh charge, while the largest users will face the smallest effective unit charge.

Table 7: estimated effective TDR unit charge for smallest and largest users in each consumption banding option

£/MWh	Band	Smallest users	Largest users	Range
1 band		471	1	470
2 bands	1	248	3	246
	2	18	4	15
4 bands	1	85	4	81
	2	14	5	9
	3	10	6	4
	4	18	4	15

Note: numbers have been rounded.

3.94. Table 7, above, shows the range in residual charges in £/MWh in each of the bands, based on the top and bottom of each band, assuming a floor at 0. It also includes an estimate of annual consumption of the lowest consumer and largest consumer to calculate the £/MWh charge for the bottom of the lowest band and top of the highest band. Though the residual is not a unit charge, the £/MWh comparison indicates the range in size of users between and within groups.

3.95. Under a single band, there is the largest range in effective unit charge, from £1/MWh for the largest user to £471/MWh for the smallest user. Introducing a band for the top 15% reduces this range to £15/MWh for the largest users. But with two bands, there is still a notable range for the remaining 85% of £246/MWh.

3.96. Only with four bands is the range for the bottom band appreciably reduced, to £81/MWh, though this is still much larger than for all the other bands. We welcome views on whether a four-band approach gives sufficient consideration to very small users.

3.97. With a four-band approach, the top three bands all have relatively narrow ranges, indicating greater equity. Indeed, the ranges are more equivalent to those for the banded TDR charge at EHV. For EHV consumers, the middle two bands have a range of £18/kVA for the second band and £12/kVA for the third band. Though a different unit measure, these ranges are far closer to the transmission four-band approach than the single or two-banded options.

3.98. Though only accounting for 15% of users, it is notable that under a four-band approach, the top band has the second largest range in unit charge. This indicates a relatively wide range in consumption levels within this band.

3.99. By applying a single charge within a band (with a floor at 0 or no floor approach), all the banded options have equality within bands.

3.100. The two-band by voltage option has overlapping consumption boundaries as the voltage level does not correlate with consumption level. This approach to banding does not distinguish users by consumption level.

3.101. The single band approach is the **simplest** and most **transparent** option as it does not require additional inputs (which are not readily available to users) to separate users into bands and calculate charges. A four-band approach is more complex, though is consistent with what we consider appropriate for distribution charges. The designation of banding based on consumption is based on an existing, transparent dataset that users will be aware of. The voltage delineation, though relatively simple, excludes the transmission connection assets that reflect the voltage actually required by each site.

3.102. Under all the options, there will be variability in charges year to year, reducing **predictability**, but this is related to the way the charging methodology derives the TDR 'pot' rather than anything inherent in a particular banding approach. Banding approaches, though relatively stable, are less predictable than a single band as the boundaries are reset before a new price control period.

3.103. We consider that banding based on consumption is more **justifiable** than that based on voltage. Consumption links energy use to segments, with broadly similar users grouped together. In contrast, our analysis suggests that voltage is not a good proxy for capacity or consumption.

3.104. Overall, we consider that a four-band approach performs best in terms of fairness, balancing equity between users and equality within bands. While a single band has some advantages in terms of predictability, simplicity and transparency, we consider the resulting inequity, particularly for the smallest users, is a fundamental concern with this approach. The two-band approach does not appear to address these concerns in a meaningful way.

Practicality and proportionality

3.105. A single-band approach would be the most straightforward to implement. While more than one band would introduce practical challenges, we consider the implementation of a multiple band approach would be proportionate, partly as they use available data to derive

the band boundaries. A four-band approach would also be consistent with the approach taken to banding for distribution consumers.

Banding assessment against the ACOs

3.106. We consider the four-banded proposals to have the greatest degree of equity of the options. The four-band option separates out different size users and has a reasonable level of practicality, granularity and equality within bands. This fairness facilitates effective competition in the sale and purchase of electricity by avoiding perverse incentives that risk advantaging large users over small users, and so is positive against ACO (a). However, we would welcome evidence of how adequately the four-band approach addresses very small users.

3.107. Whilst the two-banded proposals based on user consumption can be seen to be more equitable than a single band by separating out the very highest consumers, this means the same charge is applied to circa 85% of remaining users of varying consumption. On balance, we consider this to be neutral against ACO (a).

3.108. The two-band proposal based on voltage (WACM9) similarly separates to some extent between small and large users by virtue of the two voltage levels. However, we see voltage as an arbitrary rather than equitable delineation, without a clear relationship to which users may confer greater costs or requirements on the system. We therefore see WACM9 as negative against ACO (a).

3.109. A single band approach avoids the largest consumers being exposed to higher charges. But it also means that small users face relatively high charges, particularly the smallest users. Without consideration of small users, given the range in the size of users on the transmission system, a single band approach would appear to be fundamentally inequitable. We consider a single band approach to be negative against ACO (a).

3.110. As we stated in the TCR Decision, residual charges are cost-recovery charges, which aren't supposed to send signals for how the networks should be used. As such we consider the options for different charging bands for the TDR to be an allocation issue, not a cost-reflectivity issue, and all the banding proposals to be neutral against ACO (b).

3.111. All the options give effect to relevant parts of our TCR Direction related to the TDR, helping NGESO fulfil the requirements placed upon it as regards this development in its transmission businesses. However, we consider only the options involving four bands

adequately address the very small users that we highlighted in our Direction. Our minded-to assessment therefore is that four-banded options are positive against ACO (c), with all other options neutral against this objective.

3.112. We consider all the options to be neutral against ACO (d) as they do not concern compliance with European (or Retained EU) law.

3.113. We consider proposals for a single band to be the only options which are positive against ACO (e) in terms of banding due to the simplicity of implementation. Increasing the granularity of banding would add some further complexity to tariff-setting and consumption-based banding would require a banding review process. But none of the banding options would introduce more complexity than the four-band approach for distribution residual charging, so we consider all banding approaches to be neutral against ACO (e).

3.114. In summary, we are minded-to consider:

- Options with a single band to be negative against ACO (a), neutral against ACO (c) and positive against ACO (e).
- Options with two bands based on consumption data to be neutral against ACOs (a), (c) and (e).
- Options with four bands to be positive against ACOs (a) and (c) and neutral against ACO (e).
- Options with two bands based on voltage level to be neutral against ACOs (c) and (e) and negative against ACO (a).
- All the banding options to be neutral against ACOs (b) and (d).

Table 8: minded-to assessment of banding options against the ACOs

Proposed Solution	Does the proposal better facilitate the ACO?				
	ACO (a)	ACO (b)	ACO (c)	ACO (d)	ACO (e)
Single band	No				Yes
Two bands – consumption					
Four bands – consumption	Yes		Yes		
Two bands - voltage	No				

Neutral assessments not shown

Very small and mixed use sites

3.115. As noted above, as part of our TCR Direction we directed NGESO to consider alternative banding approaches including an exceptions mechanism for very small users, including those within mixed use sites.

3.116. We consider that the four-band approach is the only option that gives sufficient consideration to very small users, including those identified within mixed use sites. Even then, given the range of transmission-connected users within the smallest band (bottom 40%) we would welcome views on the adequacy of a four-band approach, particularly relating to the TCR Principles of reducing harmful distortions and fairness. With four bands, the smallest users would still be facing an equivalent charge of >£80/MWh compared with a maximum of £18/MWh for the smallest users in the other bands.

3.117. We also note that any exceptions process may need to extend to new sites, which are dealt with under CMP336.

Summary of minded-to assessment against the ACOs

Table 9: minded-to assessment of CMP343 options against the ACOs

Proposed Solution	Bands	Floor	Does the proposal better facilitate the ACO?				
			ACO (a)	ACO (b)	ACO (c)	ACO (d)	ACO (e)
Original	1	0					Yes
WACM1	2	0	Yes				Yes
WACM2	4	0	Yes		Yes		Yes
WACM3	1	NF	No				Yes
WACM4	2	NF	No				
WACM5	4	NF			Yes		
WACM6	1	LA	No				
WACM7	2	LA					No
WACM8	4	LA	Yes		Yes		No
WACM9	2 (V)	0					Yes

Neutral assessments not shown
V = voltage
NF = No Floor
LA = Locational Adjustment

CUSC Charging Objective (a) – Facilitating Effective Competition

(a) that compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity

3.118. Members of the CUSC Panel unanimously agreed that WACM2 would better facilitate ACO (a). CUSC Panel members referenced the benefit of preventing an incentive for demand customers to increase consumption at peak times through a floor. Similarly, in the consultation responses, there was greater support for flooring than no floor, to avoid the risk of a perverse demand incentive. Some respondents against flooring at 0 questioned how much of a risk this was.

3.119. The Workgroup considered that four bands avoided distortive charges between small and large sites. The majority of the Code Administrator Consultation respondents also supported options which proposed four transmission bands as they saw these as avoiding discriminatory pricing for smaller demand sites connected at transmission level, and in line with the treatment of EHV sites on the distribution network. However, a majority of the Workgroup Consultation respondents supported a single band as they saw two- or four-

banded options as distortive between transmission and distribution connections, potentially causing inefficient site disconnections or reconfigurations.

Our minded-to position

3.120. As explained above, we are minded-to consider options that floor the forward-looking charge at 0 to be positive against ACO (a), not flooring to be negative against this objective and locational adjustment options neutral. We are minded-to consider banding options with a four-band approach based on consumption to be positive against ACO (a), two-band consumption options to be neutral against ACO (a), and a single TDR band or two-band approach based on voltage to be negative against this objective.

3.121. While we recognise the concerns of larger users about banding causing substantially higher charges and potential distortions between transmission-connected and distribution-connected consumers, as explained above, a single band approach would appear to be fundamentally inequitable given the range in user sizes. In light of the concerns of large users, we are inviting views on our minded-to decision to delay implementation by a year.

3.122. Based on this, WACMs 1, 2 and 8 are the only proposals positive against ACO (a).

CUSC Charging Objective (b) – Cost-reflective Charging

(b) that compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and in accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard condition C26 (Requirements of a connect and manage connection)

3.123. Members of the CUSC Panel unanimously agreed that WACM2 would better facilitate ACO (b). A number of CUSC Panel members noted that a larger number of bands would be more cost reflective. The Workgroup similarly noted that four bands would deliver more cost reflective prices to sites connected at transmission. Similarly, consultation responses that supported four bands shared concerns for applying a single charge to users with different levels of consumption. Respondents in favour of no floor or the locational adjustment sought to maintain a forward-looking signal.

Our minded-to position

3.124. As explained above, we are minded-to consider all options to be neutral against ACO (b). We consider the options for different charging bands for the TDR to be an allocation issue, not a cost-reflectivity issue, and all the banding proposals to be neutral against ACO (b).

3.125. For flooring, we consider all the options to be, on balance, neutral against ACO (b). While flooring at 0 could reduce the strength of the cost-reflective signal of the forward-looking charge, it does avoid introducing potentially non cost-reflective negative charges at times of system peak. We also note that the strength of the existing forward-looking signal is dampened by: being combined with the residual; existing flooring at 0; and the potential for all HH users (irrespective of location) to reduce or avoid all TNUoS demand charges by changing consumption behaviour during triad periods. On the other hand, no floor would preserve the forward-looking signal but is potentially distortive, as it could incentivise demand during peak periods.[24] A locational adjustment maintains the forward-looking signal for cost-reflectivity but does this through a fixed residual charge that is not intended to be cost-reflective.

CUSC Charging Objective (c) – Facilitating charges that take account of the developments in transmission licensees' transmission businesses

(c) that, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses;

3.126. Four of eight CUSC Panel members, along with a number of consultation respondents, considered that at least some of the options better facilitate ACO (c). The main reason cited was that the options give effect to relevant sections of our TCR Direction with respect to the TDR. Some respondents particularly highlighted the benefits of the four-band approaches as best able to enable connections to the transmission network (e.g. EV charging hubs) that help transmission businesses contribute to net zero greenhouse gas emissions targets. One CUSC Panel member noted that the voltage boundary under WACM9 cannot be examined or adjusted at the beginning of price control periods, whereas the other options (with bands based on consumption) have the flexibility to change with network developments.

[24] This is in contrast to the forward-looking generation signal, which is calculated on a fundamentally different basis, including being based on capacity.

Our minded-to position

3.127. All the options give effect to relevant parts of our TCR Direction related to the TDR, helping NGESO fulfil the requirements placed upon it as regards this development in its transmission business. The options involving four bands best address the very small users that we highlighted in our Direction. Our minded-to assessment therefore is that four-banded options (WACMs 2, 5 and 8) are positive against ACO (c), with all other options neutral against this objective.

CUSC Charging Objective (d) – Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency[25]

3.128. Consultation respondents, CUSC Panel members and we consider all the options to be neutral against this objective.

CUSC Charging Objective (e) – Promoting efficiency in the implementation and administration of the system charging methodology

3.129. All members of the CUSC Panel except for one agreed that WACM2 was neutral against ACO (e). Some CUSC Panel members noted that the options which have a locational adjustment to the floor would introduce a complex methodology into charging.

3.130. The Workgroup saw the option to use two transmission bands determined by voltage (WACM9) as having a simpler and more transparent charging methodology, but were otherwise neutral about the flooring and banding options against ACO (e). Some consultation responses saw the locational adjustment as cumbersome, impractical and/or adding unnecessary complexity for a short period (on the assumption of future Access reform).

Our minded-to position

3.131. As explained above, we are minded-to consider options which floor the forward-looking charge at 0 to be positive against ACO (e), no flooring options to be neutral, and flooring with a locational adjustment to be negative against this objective. We are minded-to consider a

[25] Objective (d) refers specifically to European Regulation 2009/714/EC. The Agency referred to is the Agency for the Cooperation of Energy Regulators (ACER).

single TDR band to be positive against ACO (e) and banded approaches to be neutral against this objective.

3.132. Based on this, the Original Proposal and WACMs 1, 2, 3 and 9 are the only proposals that are positive against ACO (e).

Implementation date

3.133. The industry consultations asked if respondents supported the proposed implementation of April 2022 for CMP343. A minority of respondents to both consultations noted concerns or didn't support the implementation timescales. These respondents (who included energy suppliers, steel sector consumers and other industry participants) sought a later implementation date, with 2023 proposed by some. Reasons cited for later implementation included the scale of the impact, to align with Access reform, and/or to account for Covid-19-related disruption.

3.134. We note that the TCR Decision followed extensive consultation with industry, as part of which multiple implementation date options were assessed. Table 14 in the TCR Decision also made it clear that we considered that implementation in 2021 would bring the benefit of reducing harmful distortions more quickly. However, we are open to adapting our approach, based on the evidence, if it is in the best interests of consumers. For example, on 31 March 2020, we issued a decision letter delaying implementation of these reforms by a year, from April 2021 to April 2022.[26] In light of evidence regarding uncertainty with TDR charges and the potentially significant costs for some non-domestic consumers, we considered that a delay of one year was in the best interest of consumers.

3.135. As indicated in our open letter of 1 April 2021, we are now consulting on a minded-to decision to delay the implementation of the TDR reforms to April 2023.[27] We recognise the uncertainty caused by this position. To minimise uncertainty, we plan to issue a decision on this proposal soon as reasonably practicable after the consultation closes, having due regard to the consultation responses.

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[26] https://www.ofgem.gov.uk/system/files/docs/2020/03/letter_to_ngeso_re_cmp332_consent_to_withdrawal_and_new_direction_0.pdf

[27] https://www.ofgem.gov.uk/publications-and-updates/open-letter-timing-cmp343

Advantages of a delay

3.136. The principal reason for delay would be to allow consumers more time to respond to the changes in charges that would flow from our minded-to decision relative to those signalled in our TCR IA. These changes would particularly affect the largest users (in the top band) under a two- or four-band approach, increasing from c.£550k in our TCR IA to c.£2.56m with a four-band approach. Responses to the modification consultations from the largest users highlighted the significant increase in network costs as a percentage of electricity costs that would result from a four-band approach.

3.137. We have received evidence that some users would need more time to adjust physical arrangements to adapt to the new increased charges under a four-band approach, including to take advantage of other energy revenue streams (such as the Capacity Market), as we modelled as part of the TCR. We are minded-to consider that a delay to implementation would give those affected more time to adapt and adjust to any changes once they have been decided on. Absent such a delay, there is an increased risk of disconnection of the largest users, which will not change the level of residual charge that still needs to be recovered from other users.

3.138. We acknowledge that the elapsed time between the FMR and this minded-to decision (and final decision to follow) has reduced the possible notice period for the changes that implementation of any of these options will bring. A delay, regardless of the decision, would help increase the notice period of changes for all affected stakeholders.

Disadvantages of a delay

3.139. Any delay would also have disadvantages, most notably in the delay to realising the consumer benefits of the TCR reforms. Though we consider that the negative impact of a delay would be spread among a large group of consumers, in contrast to a significant impact on a relatively small number of (the largest) consumers if implementation was not delayed.

3.140. The delay may mean that investment decisions continue to be made based on the existing distortion, though we would expect this to be mitigated by our consistent signalling under the TCR that this distortion would be removed.

3.141. A delay to implementation would result in further uncertainty for very small users, though our minded-to decision should offer some reassurance. And we remain clear that, regardless of the final decision, very small users need to be sufficiently taken into account in TDR charges, either through four bands or an alternative approach. Informed by consultation

responses, we will give a final view on whether four bands adequately addresses very small users in our final decision.

3.142. We have already made our decisions on the proposed modifications on distribution residual charges, which are due to take effect from April 2022 (with tariffs already published). A delay would mean that the transmission demand residual reforms would be a year behind those for distribution charges, though we do not consider this to present an issue as the TDR is paid by both distribution and transmission consumers.

Our minded-to position

3.143. On balance, we are minded-to consider that a one year delay to implementation would be in the interest of consumers. We are keen to take into account the concerns of large users and address them in a robust way. We are also keen to set out a clear intention on our minded-to position to provide as much certainty as possible to affected parties.

3.144. Though we are reluctant to delay the realisation of the consumer benefits, we are concerned that, if limited notice is given of the impacts on the largest users, this could undermine the consumer benefit. For instance, if it were to result in large users disconnecting from the network, the costs would have to be recovered from the remaining consumers. But issuing a minded-to decision now should continue to discourage inefficient investment, providing a consistent signal to that in our TCR Decision, that we intend to remove the harmful distortion.

3.145. We welcome views on our minded-to position of a one year delay to implementation.

Principal objective and statutory duties

3.146. We are minded-to consider that the approval of WACM2 is consistent with our statutory duties, including our principal objective to protect the interests of existing and future consumers, and our other statutory duties. We have assessed the options against our TCR Principles, which closely align with our principal objective and statutory duties, as noted in our TCR Decision (p.22):

> *Reducing harmful distortions protects consumers since anything which distorts wholesale markets is likely to increase network costs impacts consumer prices in the short and long term. Fairness between end consumers of energy is an important aspect of protecting consumers. We also have responsibilities to ensure that industry*

participants are treated fairly (on legal and procedural grounds) and consistently, and that the markets in which electricity, and services for its production, are sold are functioning well is promoting effective competition. By having proportionality and practical considerations as a TCR principle, we can also ensure that we do not overburden energy market participants with new processes. We have been mindful of our environmental obligations and have formally assessed the carbon impacts of proposed reforms. In doing so we are trying to be fair, proportionate and practical.

3.147. We are minded-to reject proposals that introduce harmful distortions associated with no flooring and the locational adjustment approach. As a key component of fairness, we are minded-to reject proposals that introduce the greatest inequity through a single band.

3.148. We are minded-to consider that WACM2 would best protect the interests of existing and future consumers. It would avoid introducing distortions through the forward-looking signal, while it would introduce the greatest equity of the options available in recognising the different characteristics of different users. We consider WACM2 to be practical and proportionate, limiting potentially short-term change in the approach to forward-looking charges and bringing consistency with the banding approach for distribution connections. Furthermore, the four-band approach would better enable relatively low consumption connections to the transmission network that can help achieve net zero greenhouse gas emissions targets, such as EV charging hubs.

3.149. Our minded-to decision would introduce significantly different charges for some consumers than were indicated as part of our TCR IA. We are concerned that this increases the risk of disconnections with consequential impacts on consumers overall. We consider that a delay of one year would better allow the largest consumers time to adjust to these changes. We note that this would delay realisation of the benefits of the reforms, but in a way that would have a small short-term impact spread over a large number of consumers, and allow an enduring approach to the TDR to enable the realisation of benefits over the long-term.

Appendices

Index

Appendix 2 – Privacy notice on consultations

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

4. With whom we will be sharing your personal data

We will not share your personal data with other organisations. We will publish non-confidential consultation responses, redacting any personal data that may be contained within them.

5. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for one year after the project is closed.

6. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete

- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at https://ico.org.uk/, or telephone 0303 123 1113.

7. Your personal data will not be sent overseas.

8. Your personal data will not be used for any automated decision making.

9. Your personal data will be stored in a secure government IT system.

10. More information For more information on how Ofgem processes your data, click on the link to our "Ofgem privacy promise".