Final Modification Report

CMP343 & CMP340: Transmission Demand Residual Bandings and allocation (TCR)

Overview: CMP343 creates a methodology to determine (i) the charging Bands and (ii) the tariffs for each Band, in order to charge the Transmission Demand Residual (TDR). CMP340 develops the definitions required for CMP343.

Modification process & timetable

1. **Proposal form**
   - 13 May 2020
2. **Workgroup Consultation**
   - 10 July 2020 - 31 July 2020
3. **Workgroup Report**
   - 20 August 2020
4. **Code Administrator Consultation**
   - 1 September 2020 - 22 September 2020
5. **Draft Code Modification Report**
   - 23 September 2020
6. **Final Code Modification Report**
   - 6 October 2020
7. **Implementation**
   - 1 April 2022

Have 5 minutes? Read our Executive summary

Have 25 minutes? Read the full Final Modification Report

Have 60 minutes? Read the full Final Modification Report and Annexes

Status summary: This Report has been submitted to the Authority for them to decide whether this change should happen.

Panel Recommendation – CMP343:

- The CUSC Panel recommended unanimously that WACM2 better facilitated the CUSC Objectives than the Baseline (the arrangements currently set out in CUSC).
- The CUSC Panel recommended by majority that the Original, WACM1, WACM6, WACM7, WACM8 and WACM9 better facilitated the CUSC Objectives than the Baseline.

Panel Recommendation – CMP340:

- The CUSC Panel recommended unanimously that the Original, WACM1 and WACM2 better facilitated the CUSC Objectives than the Baseline (the arrangements currently set out in CUSC).

Impact	**CMP343 is expected to have a: high impact** National Grid ESO, Distribution Network Operators, Suppliers and Demand Users connected to the Transmission Network **CMP340 is expected to have a: low impact** All CUSC Users as this will amend Sections other than Section 14 for the purposes of CMP343.

Governance route	This modification has been assessed by a Workgroup and Ofgem will make the decision on whether it should be implemented.		
Who can I talk to about the change?	**Proposer:** Eleanor Horn, National Grid ESO eleanor.horn@nationalgrideso.com 07966186088		**Code Administrator Chair**: Paul Mullen paul.j.mullen@nationalgrideso.com 07794537028

Executive Summary

CMP343 will deliver part of Ofgem's TCR direction[1] concerning the Transmission Demand Residual (TDR) by creating a methodology by which the residual element of demand Transmission Network Use of System (TNUoS) tariffs can be apportioned to Half Hourly (HH) and Non Half-Hourly (NHH) demand, and a separate methodology to determine the 'Bands' against which the residual element of demand TNUoS is levied. CMP340 will provide the definitions required for CMP343.

What is the issue?

Currently, network cost recovery incentivises inefficient actions and there are differences in treatment across transmission and distribution. The full rationale for this change can be found in Ofgem's TCR direction.

What is the solution and when will it come into effect?

Proposers solution (CMP343): The ESO will determine and publish the Bands that apply at each voltage level. The ESO will create these by segregating transmission connected demand by consumption in accordance with the requisite percentiles.

Key aspects of this solution are set out in the following table:

The locational charge is floored at £0, in demand zones, where the locational demand TNUoS tariff[2] is negative	**A single charging Band to charge the TDR to transmission connected sites**	**A volumetric, p/kWh Residual charge for Unmetered Supply Final Demand Sites**	**Implementation date of 1 April 2022 (as directed by the Authority)**

Alternative solutions (CMP343): 9 Workgroup Alternative CUSC Modifications (WACMs) have been put forward by the Workgroup. WACMs 1 to 8 add the following variants to the Original solution:

- creating 2 or 4 transmission bands determined by percentiles of consumption rather than a single transmission band

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

[2] £/kW for HH metered users based on consumption over triad or p/kWh for NHH metered users based on 4-7PM chargeable volume.

- alternative options to flooring the locational charge at £0 in negative locational TNUoS charging zones. Note that these options only apply from 1 April 2022 to 31 March 2023.

WACM9 creates 2 transmission bands by segregating transmission connected demand by voltage rather than consumption; otherwise it is the same as the CMP343 Proposer's Solution Proposal.

Proposers solution (CMP340): Alter and add defined terms to Section 11 as necessary for the development of CMP343 Original Proposal and WACMs 1-5.

Alternative solutions (CMP340): Two alternative solutions have been raised for CMP340 so as not to add redundant definitions to the CUSC.

- CMP340 WACM1 relates to the Section 11 defintions needed for CMP343 WACMs 6-8.
- CMP340 WACM2 relates to the Section 11 defintions needed for CMP343 WACM 9.

The CMP340 solution to be implemented is dependent on which CMP343 solution chosen is by the Authority.

Workgroup conclusions (CMP343):

The Workgroup concluded by majority that the Original, WACM1, WACM2, WACM3, WACM4, WACM5 and WACM9 better facilitated the CUSC Objectives than the Baseline. However, there was support for WACM6, WACM7 and WACM8.

Workgroup conclusions (CMP340):

The Workgroup concluded unanimously that the Original, WACM1 and WACM2 all better facilitated the CUSC Objectives than the Baseline.

Implementation date (CMP343 & CMP340): 1 April 2022.

Panel Recommendation

CMP343:

- The CUSC Panel recommended unanimously that WACM2 better facilitated the CUSC Objectives than the Baseline (the arrangements currently set out in CUSC).
- The CUSC Panel recommended by majority that the Original, WACM1, WACM6, WACM7, WACM8 and WACM9 better facilitated the CUSC Objectives than the Baseline.

CMP340:

- The CUSC Panel recommended unanimously that the Original, WACM1 and WACM2 better facilitated the CUSC Objectives than the Baseline (the arrangements currently set out in CUSC).

What is the impact if this change is made?

(CMP343) This is a large-scale change that will require amendments and consequential changes to all Supplier and DNO processes.

(CMP340) Low impact to all CUSC parties as this to add/amend definitions in the code.

Interactions

CMP343 and CMP340 are two of five CUSC modifications which will change the way the Transmission Demand Residual (TDR) is calculated and charged as per Ofgem's TCR SCR Direction[3].

- CMP343 develops a methodology for the TDR to be applied only to 'Final Demand' consumers on a 'Site' basis, being a Final Demand Site.
- CMP340 provides the definitions required for CMP343, to areas in CUSC outside of Section 14.
- CMP334 defines "Final Demand" and "Single Site" and, as a consequence, what a "Final Demand Site" and what a "Non-Final Demand Site" is. DCUSA Change Proposal DCP359[4] looks to mirror what CMP334 is seeking to do, in the DCUSA. The modifications have been run alongside each other to ensure consistency in the definitions.
- CMP335 and CMP336 update the post-tariff processes within CUSC.

The table below summarises which aspects of the TCR SCR Direction will be covered in each modification.

CUSC	**CMP343 & CMP340** Creates a methodology to determine (i) the charging Bands and (ii) the tariffs for each Band. Develops the definitions required for CMP343.	**CMP334** Identifies who will be liable to pay the TDR by defining 'Final Demand', Site', 'Final Demand Site' and 'Non-Final Demand Site'	**CMP335/CMP336** Updates all of the 'post tariff setting' processes (e.g. Band allocation, securitisation etc) to reflect the TDR methodology.	
DCUSA	**DCP358** Determines Banding boundaries	**DCP359** Determines which customers should pay	**DCP360** Allocates to Bands and interventions	**DCP361** Determines the calculation of charges
BSC	**P402** Establishes the processes and data flows to enable Elexon to collect aggregate data from DNOs, and subsequently provide the required data to NGESO.			

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

[4] https://www.dcusa.co.uk/wp-content/uploads/2020/01/DCP-359-Change-Proposal-Form-v1.0.pdf

Contents

This document is the CMP343 & CMP340 **Final Modification Report.** This document outlines;

What is the issue?

What is the issue?

Currently, network cost recovery incentivises inefficient actions and there are differences in treatment across transmission and distribution. The full rationale for this change can be found in Ofgem's Targeted Charging Review Significant Code Review (TCR SCR) Decision.

What is the solution?

Differences between CMP343 and CMP332

CMP343 Original Solution is broadly the same as the CMP332 Original Solution with 2 key differences:

- Implementation Date will be 1 April 2022 rather than 1 April 2021; and
- Acting on feedback from respondents to the CMP332 Workgroup Consultation, ESO are now adopting a volumetric approach to UMS. Broadly ESO agree with the concerns from industry that including UMS sites in the LV no-MIC band could lead to gaming to avoid the Transmission Demand Residual charge.

Proposer's solution (CMP343)

In summary CMP343 will:

1. Create a new methodology for determining charging bands for TDR, based on the methodology in Ofgem's decision;
2. Create a new methodology to split TDR cost to these bands, based on Final Demand at Single Sites; and
3. Establish a process for a periodic review of the TDR methodology.

This modification has been directed by the Authority to deliver:

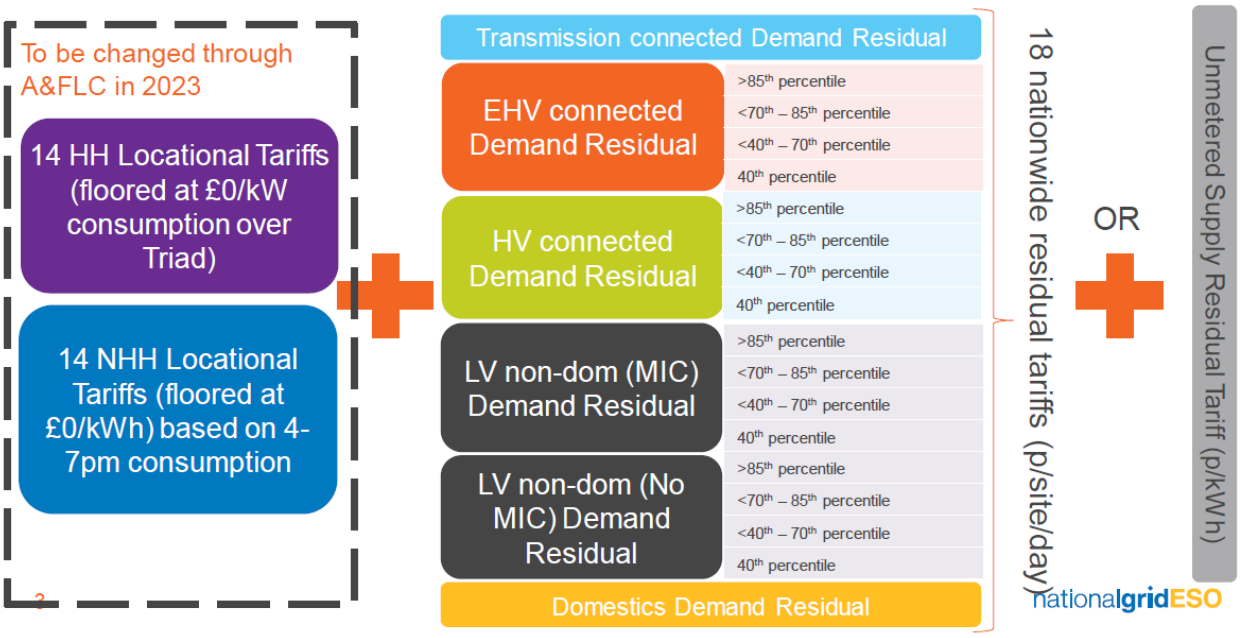
- A methodology to appropriately split residual recovery between HH and NHH demand, by voltage level, including the creation of a separate residual tariff for Unmetered Supply (UMS) volumes;
- The application of residual charges to Final Demand only, levied on a Single Site basis;
- Charging Bands, set at the 40th, 70th and 85th percentiles of either Maximum Import Capacity (MIC) or, where no MIC has been agreed between DNO and consumer, consumption values in kWh, for each of the following category of consumer:
    - LV-Connected Non-Domestic Demand Sites with a Maximum Import Capacity;
    - LV-Connected Non-Domestic Demand Sites without a Maximum Import Capacity; and
    - Separately, HV-Connected and EHV-Connected demand Sites (both with Maximum Import Capacities).
- A methodology to apportion the residual to each Band within each of these voltage-based categories, where the total value paid by demand in each Band is directly proportional to that Band's consumption as a percentage of total national (gross) consumption, such values to be recovered through specific residual Tariffs which must be the same for each demand Site within a Band;
- A residual charge, or a set of charges for Sites connected directly to the Transmission Network;
- A single residual charge for Domestic Sites;
- A single p/kWh residual tariff for Final Demand Unmetered Supplies; and
- A process to review the Bands and, separately, the finalisation of a residual charge Tariff structure, including a consideration of a pence per Site per day option.

National Grid ESO (NGESO), on receipt of total annual national gross consumption, split by Measurement Class, and the site aggregate MVA value of MICs agreed between consumers and DNOs, will determine and publish the Bands that apply at each voltage level, having calculated the Bands in accordance with the requisite percentiles.

NGESO will have an obligation, following approval of DCP358 by the Authority, for it or its nominated Agent to determine and publish the Bands by 31 October 2020 in advance of the commencement of the Onshore Transmission Owner price control in April 2021. For subsequent Onshore Transmission Owner price controls this Band setting exercise will be repeated.

The following table summarises how the Charging Bands will be determined:

1. Proposed Structure of Demand TNUoS tariffs from 2022



The following slide explains how the demand residual tariffs would be calculated once the charging Bands had been determined. This includes a new UMS Residual tariff:

How the total TNUoS Demand Residual (TDR) could be calculated

The potential process for determining TDR;

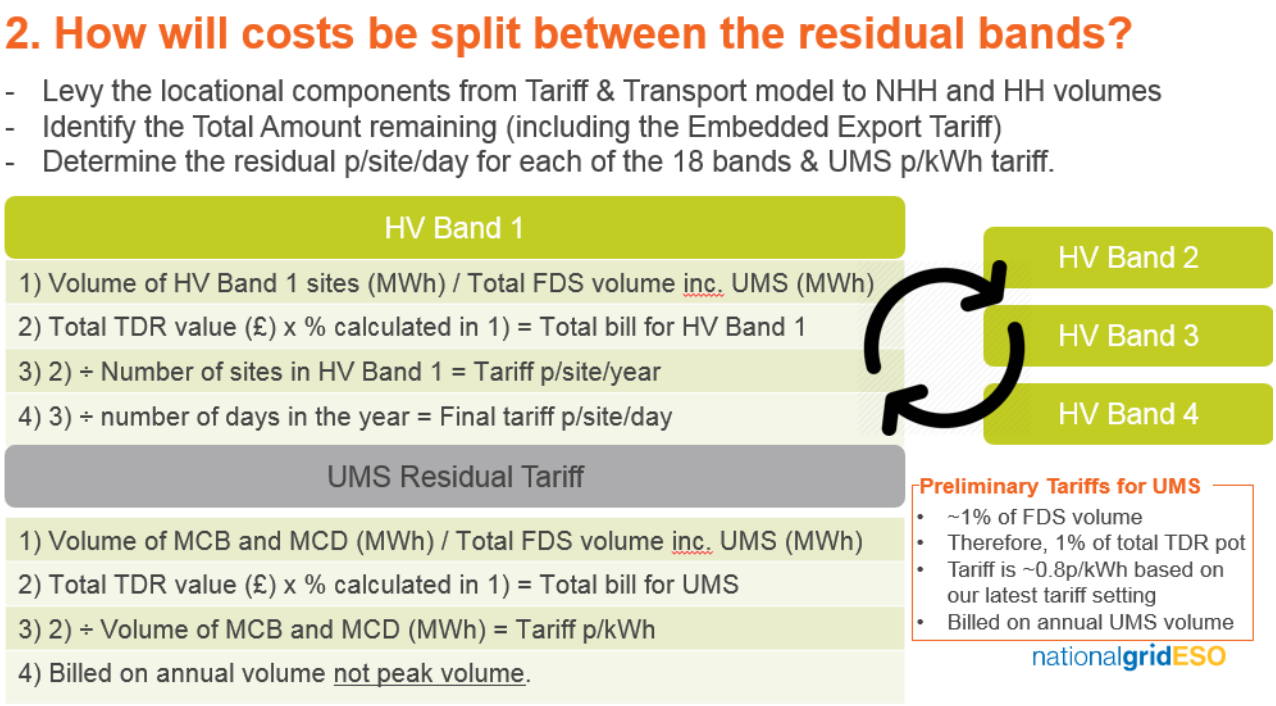
(A)	TO MAR (£)	-	Generation TNUoS Value (£)	+	Embedded Export Tariff (£)	=	Demand TNUoS Value (£)	
(B)*	Zonal HH tariffs (£/MW)	x	Zonal gross peak demand (MW)	=	Expected Zonal revenue (£)			
(C)*	Zonal HH tariffs (£/MW)	x	Zonal Triad demand (MW)	=	Recovered HH Zonal Value (£)			
(D)*	(B)	-	(C)	=	"NHH Zonal Recovery Value" (£)			
(E)*	(D)	÷	NHH Chargeable Zonal Volume (MWh)	=	NHH Locational Tariff (£/MWh)			
(F)	(A)	-	Σ(C)	-	Σ(D)	=	TDR Value (£)	
(G)	Take (F) and apply a methodology to spread value across bandings	→	7 'usage groups' 4 percentiles = ~18-21 tariff bands And 1 UMS Tariff					

* Step run in isolation for each zone

1. Domestic
2. LV no Maximum Import Capacity
3. LV with Maximum Import Capacity
4. High Voltage
5. Extra High Voltage
6. Transmission
7. Unmetered Supplies (UMS)

a. <40th percentile
b. =>40th percentile < 70th percentile
c. =>70th percentile <85th percentile
d. =>85th percentile

Convert banding values into tariffs (p/site/day for Final Demand Sites or p/kWh for UMS demand)



There will be a periodic review of the TDR methodology at the start of each new price control.

Proposer's solution (CMP340):

Amend the CUSC where necessary to support the Original Proposal and any Workgroup Alternative CUSC Modification Proposals as raised by the CMP343 Workgroup.

Workgroup Considerations

The Workgroup convened twice to discuss the perceived issue, detail the scope of the proposed defect, devise potential solutions and assess the proposal in terms of the Applicable CUSC Objectives.

The CMP343 Workgroup took into account the previous work done for CMP332 and noted the changes between CMP332 and CMP343. A Workgroup Consultation was run for CMP332 between 6 and 27 February 2020. See Annex 5-7 for the CMP332 Workgroup Consultation, Summary and responses.

The CMP343/340 Workgroup held their Workgroup Consultation between 10 – 30 July 2020 and received 13 responses which included 1 confidential response. The full non-confidential responses and a summary of the responses can be found Annexes 13 and 14.

The main themes that came out of the consultation were:

- Support across a range of options; however, there is need to ensure consistency as much as possible across Transmission and Distribution;
- Respondents were broadly happy with the delayed implementation date; however, there were still some who felt 2022 was too early;

- The Workgroup were asked to consider whether Transmission connected sites can be charged/allocated based on allowed/agreed capacity or voltage rather than consumption.
- On the number of transmission bands:
    - The majority were supportive of having just 1 transmission band given the low numbers of transmission sites, as this avoids creating 'cliff edges' at the band boundaries and there is no risk of gaming;
    - There was some support for having 4 transmission bands, as this avoids distortive charges between small and large sites and delivers more cost reflective prices to sites connected at Transmission;
    - No respondent opted for 2 transmission bands; however, there was general agreement that 85% would be the most appropriate percentile split.
- On the treatment of zones that have a negative locational tariff:
    - There was majority support for flooring the locational tariff to £0/kW as this minimises the risk of incentive for demand sites to consumer more power at peak times;
    - There was some support for no flooring as this appears to be consistent with Ofgem's Direction;
    - There was also some support for the £/site/day locational adjustment to negative locational charges, although others believed this was too complex to introduce for 1 Charging Year.
- There was support for charging UMS on a volumetric basis.

The below summarises the main aspects of the Proposer's solution that have been discussed in the CMP332, and CMP343/340 workgroups. This section details each aspect in term.

The locational charge is floored at £0, in demand zones, where the locational demand TNUoS tariff[5] is negative	**A single charging Band to charge the TDR to transmission connected sites**	**A volumetric, p/kWh Residual charge for Unmetered Supply Final Demand Sites**	**Implementation date of 1 April 2022 (as directed by the Authority)**

Treatment of zones that have a negative locational tariff

Option A) Floor the locational tariff to £0/kW[6] (Proposer's solution)

The Proposer continues to believe following discussions within the CMP332 workgroup that, pending the outcome of the Access and Forward-Looking Charges SCR, the existing floor of £0 on demand tariffs should be retained, such that in zones where the locational element of the tariff (or the new, solely locational demand tariff) is negative as an outcome

[5] £/kW for HH metered users based on consumption over triad or p/kWh for NHH metered users based on 4-7PM chargeable volume.

[6] Intention is to floor the locational tariff at £0/kW only and not to floor (at £0/kW) the gross tariffs (locational + residual)

of either the DC Load Flow Investment Cost Related Pricing DCLF ICRP model ("Transport model") or the above NHH allocative methodology, it is floored at £0 and demand users are not paid to import over peak periods, as is the case today.

The Workgroup considered the combined effect of the proposed demand residual changes and the existing negative locational charges and raised the following concerns:

- Maintaining negative demand locational changes, with the TCR SCR directed changes, will mean some users will be paid TNUoS for their use of the transmission system over TRIAD. This could create a perverse incentive for Demand Users to consume over these periods;
- This incentive could cause congestion at Distribution Network level in negatively charged zones, due to an increase in peak demand at lower voltages, as there is now an incentive to increase demand, rather than a signal to reduce demand at peak times.
- Increasing demand at times of peak system demand in zones with negative locational tariff could push up wholesale prices across Great Britain.
- Flooring the locational demand tariff at £0/kW would, based on the 2019/20 Charging Year, cause distributional effects of ~ £200m on the Residual value as 8 of the 14 demand zones (based on Charging Year 2020-21) have negative locational demand tariffs.
- Flooring the locational tariff at £0/kW would weaken the locational price signal by setting 8 zones to be the same and reducing cost-reflectivity.

Noting that the ESO Original Proposal is to floor the locational demand tariff at £0/kW where the locational TNUoS demand tariff is negative, the CMP332 Workgroup had considered potential alternatives for other treatment of the negative demand locational charge. CMP343/340 Workgroup agreed that these options remain valid alternative solutions to consider. **However, these would be temporary solutions, which would be in place until the changes from the Access and Forward-Looking Charges SCR are implemented (2023).**

The 2 options are:

Option B) Not to floor the tariffs – EDF

Ofgem confirmed that they have not assumed flooring of the locational demand TNUoS tariffs at £0 in the modelling used to inform the TCR SCR Decision. Whilst there was no overwhelming support for this, some members of the Workgroup are concerned that the ESO's Original solution is not in line with the TCR SCR Decision and questioned whether Ofgem would approve this or alternatives to an Original solution that would interact with the ongoing AFLC SCR by removing the locational signal from 8 of the 14 demand tariff zones. Some Workgroup members suggested that a no flooring option would appear to comply with what was directed. Therefore, the Workgroup agreed that options should be put forward for this approach. See potential solutions 3-5 for more detail.

Option C) Introduce a £/site/day locational adjustment to negative locational charges, to mitigate the distributional impact of flooring the locational tariff to zero - Npower

In the treatment of negative locational charges, this seeks to introduce a £/site/day locational adjustment that aims to mitigate the distributional impact of flooring the locational tariff to zero so that there is no perverse incentive to consume more energy over peak periods.

To calculate the £ per zone adjustment, ESO would need to run the Tariff model twice, once with a floor of zero applied to the locational tariffs and then again without applying a floor to the locational tariffs, recording the revenue expected to be collected from each zone under both scenarios. See potential solutions 6-8 for more detail.

Transmission banding

Ofgem has given the Workgroup discretion to determine how to Band sites connected directly to the transmission network. Solutions that determine bands using consumption and voltage have been raised as alternative proposals. Solutions using capacity to determine bands were considered but not taken forwards – these are summarised in the table below.

One transmission Band (Proposer's solution)

The Original proposal is to charge the Transmission Demand Residual to Directly Connected Final Demand Sites through a single Charging Band. The Proposer shared some analysis which supported the proposal to have one charging Band for Transmission connected customers (as per paragraph 18 of the Direction - this is set out in Annex 8).

The Workgroup also considered Transmission banding, in respect of paragraph 35 of the Direction, which contains specific reference to Transmission banding options or exceptions for very small Transmission connected final demand sites. The analysis produced by the ESO shows that the distribution of Transmission connected final demand sites by consumption has a long tail containing a small number of sites with very high annual consumption. This analysis encouraged the proposal of workgroup alternatives with either two Transmission bands (with the band boundary at the 85th percentile), or four Transmission Bands (with the band boundaries at the 40th, 70th and 85th percentiles, as used for the Distribution level).

Transmission Bands determined by consumption - Analysis

As part of the CMP332 Workgroup, the ESO identified what they believed to be Final Demand Sites and produced some analysis to show the comparison between having one, two or four transmission bands determined by consumption. The CMP343 Workgroup has updated this analysis following clarity on the definition for Final Demand Site as part of the CMP334 / DCP359 Workgroup discussions and has identified 4 additional sites that would be classed as Final Demand Sites. The analysis, which is set out in Annex 8, concludes that there is significant difference between Transmission Demand Residual Charges for each Transmission Band – given the materiality, this will encourage parties to dispute which band they sit within. This analysis is based on a number of assumptions (as set out in Annex 9).

Two transmission Bands determined by consumption - EDF

ESO developed a model to look at the effect on charges of having more than one transmission Band. There was a clear boundary line for creation of two Bands, which would mean there were no parties close to being in the lower Band. This was the 85th percentile of the Band, which fits in with the percentiles used in the TCR direction in the distribution Bandings. However, there was concern that those in the lower Band were still large consumers and would benefit from having the lower charge. Concerns were also raised in the Workgroup Consultation that two or four transmission bands create 'cliff edges' at the

band boundaries and encourage customers to reconfigure their sites in order to benefit from cheaper Annual Tariffs.

Four transmission Bands determined by consumption - EDF

Four Bands were considered to avoid distortive charges between small and large sites and deliver more cost reflective prices to sites connected at Transmission. This is also consistent with the Banding approach for distribution connected sites.

EDF raised proposed solutions with variants of 2 and 4 transmission Bands. See table 1 for the proposed solutions raised by the Workgroup.

Two Transmission Bands determined by voltage – NGESO

All of the options presented in the CMP343 Workgroup Consultation had the number of Transmission bands determined in respect to percentiles of consumption. This is because a suitable proxy for capacity (MIC is used at Distribution) is not available for Transmission connected demand. One potential way of segregating transmission connected demand is by voltage rather than capacity or consumption. This alternative was therefore raised following the Workgroup Consultation.

In this alternative, Transmission connected Final Demand Sites are allocated into the below bands:

1. >132kV

2. <=132kV

There would be no further segregation (e.g. by percentiles) within a voltage level due the low numbers of sites that would occur in each band if this was to be applied. There would also be no additional voltage levels below 132kV (at this point) due to only 1 site having a connection (subject to the following point) at <132kV. This would require defining a new point from which this voltage is derived (i.e. the boundary between shared and sole use/User assets). Using the point of connection voltage is not suitable due to the effect of Transmission Connection Assets as illustrated in the Alternative Proposal form in Annex 11. Draft tariffs for this alternative can also be found in the Alternative Proposal (WACM9) in Annex 11.

This alternative also goes some way to protecting very small Transmission connected sites from high charges created by being banded with very large energy consumers. This proposal segments off sites connected at <=132kV from all other transmission connected sites. These sites on average consume a smaller annual volume of energy than the Transmission connected sites at higher voltages and separating them off into a different band could be seen to better align treatment between sites connected at 132kV across the whole of GB. However, the Workgroup also had concerns that there were relatively small energy consuming sites connected at >132kV which would not be adequately protected from unreasonably high charges under this solution.

The benefits and pitfalls of this solution are summarised below.

Benefits	Pitfalls
More equivalent treatment between 132kV transmission and 132kV distribution connected sites	May influence what voltage potential connectees wish to use.
Difficult to game without significant engineering works	Can be gamed with significant engineering works to change the connection design.

The TDR charge the band faces is directly proportional to the band's usage	The TDR charge a site pays doesn't directly reflect the site's usage of the network (and therefore less cost-reflective).
Simpler and more transparent charging methodology	Potential mismatch between where the 'Site' boundary is and where the voltage is taken
Difficult to dispute	Assumes sites within a voltage band are similar
More stable charges as not subject to re-banding	Impacts legacy sites whose connection voltage is a product of history

Transmission banding options determined by capacity (not taken forwards)

Option	NGESO (Proposer's) view	Workgroup view
Highest Half Hourly offtake	This has broadly the same strengths and problems as the annual consumption data item. It would however create an additional distortion between 'baseload' consumers and 'peaky' consumers	No further comment
Instantaneous MW offtake	This is not a commercial product like TEC/MIC and NGESO does not have confidence in the data given it has not gone through robust data validation processes like settlement data. This would also be more difficult for the customer to understand as they will not typically be familiar with the second by second meter reads rather working in Half Hourly intervals.	No further comment
Physical connection capacity	Using the physical connection capacity (CEC) for a site would severely disadvantage legacy sites who had a connection set up many years ago when the requirements of the site were different. This is not a commercial product like TEC/MIC and customers would not be able to easily change their CEC to suit their business needs. Additionally, the CEC values are stepped as they correlate to standard sizing of transformer equipment.	No further comment
Prospective capacity	When applying for a connection the customer requests an import capacity through their application. This can change as customer needs evolve but the ESO does not keep a record of these requests once the site is connected so this would not be a feasible data item to use for banding or existing sites.	No further comment

ELEXON's "demand capacity" value	This is a seasonal product that can vary with customer needs and there are easily accessible historical records. However, the capacity is self-reported (and therefore subject to commercial gaming' risk) and there are no penalties for exceeding your self-reported value.	No further comment

A volumetric, p/kWh Residual charge for Unmetered Supply Demand

Since the CMP332 Workgroup Consultation, the Proposer has updated the CMP343 Original proposal in terms of how UMS Final Demand Sites are charged. Previously the Original proposal was to charge UMS final demand sites using a £/site/day tariff – this was because Ofgem's direction was to make the residual charges unavoidable. However, it became apparent in the CMP332 Workgroup and consultation responses that because there is no specific meter to allocate for UMS, that this could enable owners to lump all of their volumes from different inventories into one inventory (e.g. A Council who had volumes for street lamps, CCTV etc) to avoid the residual charge. The CMP343 solution is a volumetric, p/kWh residual charge for UMS Final Demand Sites.

Alternative solutions

The below table shows the Workgroup Alternative CUSC Modifications that have been formally raised by the workgroup.

CMP343 Proposed Alternatives	Treatment of negative locational	Number of Transmission Bands - determined by	Proposer
Original	Floor at zero	1 - consumption	ESO
Alternative 1	Floor at zero	2 - consumption	EDF
Alternative 2	Floor at zero	4 - consumption	EDF
Alternative 3	No Flooring	1 - consumption	EDF
Alternative 4	No Flooring	2 - consumption	EDF
Alternative 5	No Flooring	4 - consumption	EDF
Alternative 6	Introduce a £/site/day locational adjustment to negative locational charges	1 - consumption	Npower
Alternative 7	Introduce a £/site/day locational adjustment to negative locational charges	2 - consumption	EDF

Alternative 8	Introduce a £/site/day locational adjustment to negative locational charges	4 - consumption	EDF
Alternative 9	Floor at zero	1 - voltage	ESO

For further details on the above solutions see the Workgroup Alternative Code Modification forms in Annex 11.

Legal text

CMP343:
The legal text for the original and all of the alternatives can be found in Annex 15.

CMP340:
The legal text for the original and all of the alternatives can be found in Annex 16.

What is the impact of this change?

Who will it impact?

This is a large-scale change that will require amendments and consequential changes to all Supplier and DNO processes. In particular, NGESO will require data input (likely via Elexon) for site level information of capacity and annual consumption and site counts per relevant Band or category. This will further need to be broken down by Grid Supply Point Group and Supplier to allow relevant billing processes to take place. There is a contingency between this CMP and the DCUSA/BSC changes – this CMP will create the charging methodology, but it cannot be practically implemented until the relevant non-CUSC changes are approved and the requisite data-gathering processes are completed.

What are the positive impacts?

Ofgem has established that there are consumer benefits to this change due to certain types of customers no longer being able to avoid the costs of residual transmission charges.

Workgroup vote

The Workgroup met on 12 August 2020 to carry out their Workgroup vote. 8 Workgroup Members voted, and the full Workgroup vote can be found in Annexes 17 (CMP343) and 18 (CMP340). The tables below provide:

- a summary of how many Workgroup members believed the Original and each of the nine WACMs were better than the Baseline; and
- a summary of the Workgroup members views on the best option to implement this change.

The applicable CUSC objectives are:

CUSC charging objectives (CMP343)

(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;

(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 accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard licence condition C26 requirements of a connect and manage connection);

(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;

(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency. These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1 *; and

(e) To promote efficiency in the implementation and administration of the use of system charging methodology.

CUSC non-charging objectives (CMP340)

(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence;

(b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity;

(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and

(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.

*Objective (c) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

CMP343 - Assessment of the Original and WACM1 to WACM9 vs the Baseline (the current CUSC arrangements)

The Workgroup concluded by majority that the Original, WACM1, WACM2, WACM3, WACM4, WACM5 and WACM9 better facilitated the CUSC Objectives than the Baseline. However, there was support for WACM6, WACM7 and WACM8.

Proposed Solution	Of the 8 votes, how many said that this option was better than the Baseline
Original	7
WACM1	7
WACM2	8
WACM3	5
WACM4	5
WACM5	5
WACM6	4
WACM7	3

WACM8	3
WACM9	7

CMP343 Best Option

Workgroup Member	Company	BEST Option?	Which objective(s) does the change better facilitate? (if baseline not applicable)
Eleanor Horn	NGESO	Original	a, b, c
Karl Maryon	Haven Power Limited	Original	a, b, c
Garth Graham	SSE	Original	a, b, c
Simon Lord	Engie	WACM2	a, b
Simon Vicary	EDF Energy	WACM5	a, b
Robert Longden	Cornwall Insight	Original	a, b
Grace March	Sembcorp	Original	a, b, c
Lee Stone	E.ON	WACM3	a, b, c

CMP340 - Assessment of the Original, WACM1 and WACM2 vs the Baseline (the current CUSC arrangements)

The Workgroup concluded unanimously that the Original, WACM1 and WACM2 all better facilitated the CUSC Objectives than the Baseline.

Proposed Solution	Of the 8 votes, how many said that this option was better than the Baseline
Original	8
WACM1	8
WACM2	8

CMP340 Best Option

Workgroup Member	Company	BEST Option?	Which objective(s) does the change better facilitate? (if baseline not applicable)
Eleanor Horn	NGESO	Original	a, b, d
Karl Maryon	Haven Power Limited	Original	a, d
Garth Graham	SSE	Original	a, b
Simon Lord	Engie	Original	a, b
Simon Vicary	EDF Energy	Original	a, b
Robert Longden	Cornwall Insight	Original	a, b
Grace March	Sembcorp	Original	a, d
Lee Stone	E.ON	Original	a, b, d

Code Administrator Consultation Summary

The Code Administrator Consultation for CMP343 and CMP340 was issued on 1 September 2020 and closed 5pm on 22 September 2020 and received 21 non-confidential responses including 2 late responses. 7 of these responses were almost identical and were from parties in the rail industry.

A summary of these responses can be found in Annex 19 and the full responses can be found in Annex 20.

Preference for 4 Transmission Bands

The vast majority of respondents (17 of the 21 responses) supported options which proposed 4 transmission bands as, in their opinion, these avoid discriminatory pricing for smaller Demand sites connected at Transmission and would be in line with the treatment of EHV sites on the distribution network.

These respondents argued that 1 and 2 band solutions seem to be disproportionate due to the distribution of different sized connections on the transmission network and also make it unaffordable to use smaller-scale connection points for small-scale demand – stifling innovation.

1 respondent did note that the introduction of transmission bands would be an additional change that was not part of the Direction.

Implementation 1 April 2022

The majority of respondents (13 of the 21 responses) support implementation from 1 April 2022. 6 respondents proposed implementation should be April 2023 due to:

- the scale of impact on larger customers and the modest consumer impact (£5/year) – 3 respondents;

- the continuing impacts of COVID-19 – 2 respondents; and
- coinciding with the changes that the AFLC SCR will make – 1 respondent

Mixed views on the treatment of zones that have a negative locational tariff

Whilst the majority of responses focused on the merits of having 4 transmission bands, 8 respondents expressed views on how to address the negative locational tariff. Views were mixed and reflected the discussions held at Workgroup stage.

4 of these respondents supported the current practice of flooring the locational tariff to £0/kW. 3 respondents favoured the £/site/day locational adjustment to negative locational charges. The other respondent believed that altering any resulting negative locational signal is not within the scope of this modification.

Panel recommendation vote

The Panel met on the 1 October 2020 to carry out their recommendation vote.

They assessed whether a change should be made to the CUSC by assessing the proposed CMP343 and CMP340 changes and any alternatives against the Applicable Objectives.

CMP343

Vote 1: *Does the Original, WACM1, WACM2, WACM3, WACM4, WACM5, WACM6, WACM7, WACM8 or WACM9 facilitate the objectives better than the Baseline (the current CUSC arrangements)?*

Panel Member – Andy Pace

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Better facilitates ACO (e)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM1	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM2	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM3	No	No	Neutral	Neutral	Neutral	No
WACM4	No	No	Neutral	Neutral	Neutral	No
WACM5	No	No	Neutral	Neutral	Neutral	No
WACM6	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM7	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM8	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM9	Yes	Yes	Neutral	Neutral	Neutral	Yes

Voting Statement
This is a beneficial change that implements the TCR by creating a methodology to determine the charging bands. We believe the original and WACMs 1 and 2 are better than baseline as they all floor the locational charge at zero and do not introduce an incentive for demand customer to increase consumption at peak times. WACMs 3, 4 and 5 do not have a floor and therefore we do not believe these alternatives to be better than baseline. WACMs 6, 7 and 8 all recover the shortfall in revenue that is introduced by flooring the locational charge at zero, by applying a locational fixed charge adjustment. We consider these alternatives as better than baseline although note that they introduce a regional variation in charges across DNO areas. WACM 9 splits final sites by voltage of connection and we also consider this as a viable alternative and better than baseline. Overall, our preference is for WACM2. This alterative floors the locational charge at zero and therefore removes the incentive for customers to import at peak times. It also introduces four bands which allows for more variation in charges between import sites and increases the cost reflectivity of the charges. There is also no locational variation for this which results in more transparent pricing for consumers and less complexity. We prefer the application of 4 bands based on consumption rather than using the voltage of connection to allocate charges to customers as this provides a greater granularity based on the customers size.

Panel Member – Cem Suleyman

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Better facilitates ACO (e)?	Overall (Y/N)
Original	Yes	Neutral	Yes	Neutral	Neutral	Yes
WACM1	Yes	Neutral	Yes	Neutral	Neutral	Yes
WACM2	Yes	Neutral	Yes	Neutral	Neutral	Yes
WACM3	Neutral	Neutral	Yes	Neutral	No	No
WACM4	Neutral	Neutral	Yes	Neutral	No	No
WACM5	Neutral	Neutral	Yes	Neutral	No	No
WACM6	Neutral	Neutral	Yes	Neutral	No	No
WACM7	Neutral	Neutral	Yes	Neutral	No	No
WACM8	Neutral	Neutral	Yes	Neutral	No	No
WACM9	Yes	Neutral	Yes	Neutral	Neutral	Yes

Voting Statement
I believe that there is a need to 'floor at zero' to prevent perverse incentives to increase demand over Triad periods. The proposed adjustment mechanism to mitigate this

perverse incentive is far too cumbersome and could possibly result in adverse unintended consequences. Therefore it is not a desirable feature. Good cases have been made for the introduction of one, two and four transmission bands determined either by consumption or voltage. On balance though I have a slight preference for the four band option as it appears to produce a more equitable outcome.

For the reasons above, I only consider that options which have the 'floor at zero' feature (Original, WACM1, WACM2 and WACM9) overall better facilitate the Applicable CUSC Objects. To be clear though, I consider the other options are no worse than the Baseline as despite their negative features they go a long way to delivering the objectives of the TCR.

Panel Member – Garth Graham

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Better facilitates ACO (e)?	Overall (Y/N)
Original	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM1	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM2	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM3	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM4	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM5	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM6	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM7	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM8	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM9	Yes	Yes	Yes	Neutral	Neutral	Yes

Voting Statement

I have considered the proposal along with the Workgroup Report and the Code Administrator Consultation responses as well as the Authority's TCR SCR decision document (along with the associated information).

In their documentation the Authority set out the benefits that applying the Residual to Demand rather than Generation. Launched in the summer of 2017 and concluding in the winter of 2019 the Authority's review considered the effects of the change in terms of, broadly, effective competition (Applicable Objective (a)) and cost reflectivity (Applicable Objective (b)) (as well as other wider aspects) and concluded that doing this change will be positive on both counts – I concur with the Authority's view. All ten options (the Original and the nine WACMs) are therefore better in terms of (a) and (b) in respect of the Baseline.

In terms of (c) the proposers of the ten options have (correctly in my view) identified that their option is better in terms of Applicable Objective (c) and I concur with that.

In terms of Applicable Objectives (d) and (e) I also agree with the proposers of the ten options that they are neutral in respect of both these objectives.

Being mindful of the Authority's TCR SCR decision and its direction, to NGESO, to raise the Original proposal I believe, on reflection, that the Original is the best of the eleven options available to me (the Baseline, the Original and the nine WACMs) whilst recognising that the nine WACMs each offer elements that have positive attributes which may, upon reflection, be something that the Authority may wish to take into consideration in terms of possible improvements that build upon the Authority's TCR SCR decision from last November.

Panel Member – Andrew Enzor (for Grace March)

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Better facilitates ACO (e)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Neutral	No	Yes
WACM1	Yes	Yes	Neutral	Neutral	No	Yes
WACM2	Yes	Yes	Neutral	Neutral	No	Yes
WACM3	No	Yes	Neutral	Neutral	No	No
WACM4	No	Yes	Neutral	Neutral	No	No
WACM5	No	Yes	Neutral	Neutral	No	No
WACM6	Yes	Yes	Neutral	Neutral	No	Yes
WACM7	Yes	Yes	Neutral	Neutral	No	Yes
WACM8	Yes	Yes	Neutral	Neutral	No	Yes
WACM9	Yes	Yes	Neutral	Neutral	No	Yes

Voting Statement

ACO (a): Negative TRIAD charges will distort competition by introducing perverse incentives for some users to increase demand at peak times. So WACMs 3, 4 and 5 do not better facilitate this objective. All other options better facilitate this objective.

ACO (b): The Original and all WACMs better facilitate this objective by ensuring that residual charges are unavoidable by all network users, resulting in more cost-reflective charges.

ACO (c): Neutral.

ACO (d): Neutral.

ACO (e): The Original and all WACMs introduce additional complexity to TNUoS billing processes due to the need to band distribution connected customers. However, banding of transmission demand customers would represent an additional complication, so the Original, WACM3, WACM6 and WACM9 do not have as material a negative impact on this objective as the remainder.

Panel Member – Jon Wisdom

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Better facilitates ACO (e)?	Overall (Y/N)
Original	Yes	Yes	Yes	Neutral	Yes	Yes
WACM1	Yes	Yes	Yes	Neutral	Yes	Yes
WACM2	Yes	Yes	Yes	Neutral	Yes	Yes
WACM3	No	Yes	No	Neutral	Yes	No
WACM4	No	Yes	No	Neutral	Yes	No
WACM5	No	Yes	No	Neutral	Yes	No
WACM6	Yes	Yes	Yes	Neutral	No	Yes
WACM7	Yes	Yes	Yes	Neutral	No	Yes
WACM8	Yes	Yes	Yes	Neutral	No	Yes
WACM9	Yes	Yes	Yes	Neutral	Yes	Yes

Voting Statement

Whilst all of the options presented by CMP343 implement Ofgem's TCR direction, some of the options presented result in significant side effects.

In respect of Applicable CUSC Objectives A and C, WACMs 3, 4 and 5 are negative whilst all other options are positive. This is because WACMs 3, 4 and 5 introduce a large commercial incentive in parts of GB for HH sites to change their behaviour and consume additional energy over triad (when the transmission system is under most stress), which is contrary to the signals that the Transport Model produces (i.e. long-term investment signals) and risks security of supply of the network.

All of the options are positive compared to Applicable CUSC Objective B and neutral compared to Applicable CUSC Objective D.

In terms Applicable CUSC Objective E, all of the options are positive except WACMs 6, 7 and 8. This is because these WACMs introduce a complex methodology to mitigate the defect identified above in relation to WACMs 3, 4 and 5. Whilst this defect is mitigated and is a possible long-term solution, it is likely to be superseded by Ofgem's decision on the Access and Forward Looking Charges SCR.

Finally, in terms of the remaining options (Original, WACM1, WACM2 and WACM9), this comes down to a balance between a larger number of bands (which are more cost reflective but volatile) and fewer bands (which are less cost reflective but more stable). On balance, it appears that smaller connected transmission sites paying the same as larger sites is unfair and this element outweighs the simplicity and ease of implementation of a single band. Therefore WACM2 is better overall.

Panel Member – Joe Dunn

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Better facilitates ACO (e)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM1	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM2	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM3	No	Yes	Neutral	Neutral	Neutral	Yes
WACM4	No	Yes	Neutral	Neutral	Neutral	Yes
WACM5	No	Yes	Neutral	Neutral	Neutral	Yes
WACM6	No	No	Neutral	Neutral	Neutral	No
WACM7	No	No	Neutral	Neutral	Neutral	No
WACM8	No	No	Neutral	Neutral	Neutral	No
WACM9	Yes	Yes	Neutral	Neutral	Neutral	Yes

Voting Statement

With regards to the Original and WACMs 1 and 2, I believe these better facilitate effective competition (ACO (a)) and result in better cost reflectivity (ACO (b)) in line with Ofgem's overall TCR objectives and decisions.

WACMs 3 to 8 do not better meet ACO (a) as in the absence of flooring in 3, 4 and 5 can lead to negative charging and perverse behaviour. Where a fixed charge in 6, 7 and 8 may mitigate this it does not better resolve the root issue and therefore also does not better meet ACO (a) for this reason. Further, regarding ACO (b) with respect to WACMs 6, 7 and 8, a fixed charge to attempt to solve the negative charge issue would have a negative effect on cost reflectivity.

Panel Member – Paul Jones

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Better facilitates ACO (e)?	Overall (Y/N)
Original	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM1	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM2	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM3	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM4	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM5	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM6	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM7	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM8	Yes	Yes	Yes	Neutral	Neutral	Yes
WACM9	Yes	Yes	Yes	Neutral	Neutral	Yes

Voting Statement

All options better promote the three objectives identified in my vote by producing a better way to recover residual charges.

Negative locational charges should not in theory create a perverse incentive by promoting additional demand if this is what would benefit the system. However, it is not clear that a negative triad charge would provide the correct signals in this respect. Therefore, flooring at zero would seem to be a better option until the forward access charging work has completed.

Splitting the transmission sites into bands would produce a methodology consistent with that for distribution connected sites. It is notable that the indicative charges for a single transmission band under the TCR seem to be lower than those for the highest EHV band, which does not seem intuitively correct and suggests cross subsidies between smaller and larger sites in this band. Disputes should not be a concern if there are a lower number of sites.

Panel Member – Paul Mott

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Better facilitates ACO (e)?	Overall (Y/N)
Original	No	Neutral	Neutral	Neutral	Neutral	No
WACM1	No	Neutral	Neutral	Neutral	Neutral	No
WACM2	Yes	Neutral	Neutral	Neutral	Neutral	Yes
WACM3	No	Yes	Neutral	Neutral	Neutral	No
WACM4	No	Yes	Neutral	Neutral	Neutral	No
WACM5	Yes	Yes	Neutral	Neutral	Neutral	Yes
WACM6	Yes	Neutral	Neutral	Neutral	Neutral	Yes
WACM7	Yes	Neutral	Neutral	Neutral	Neutral	Yes
WACM8	Yes	Neutral	Neutral	Neutral	Neutral	Yes
WACM9	No	Yes	Neutral	No	No	No

Voting Statement

The 4 banded variants avoid discriminatory pricing for smaller demand sites connected at Transmission level; 1 and 2 band solutions seem to be disproportionate due to the distribution of VERY different sized connections on the transmission network, and would make it unaffordable to use smaller-scale connection points for small-scale demand – stifling the innovation that NGET has been promoting. The best option, apparently favoured by most demand respondents, is the 4 band, as there is a link to the size of assets that are installed for the site; options with only one band allow a cross subsidy from far smaller sites to far larger ones with significantly more assets likely to be installed in sites that have a large consumption.

The direction behind this modification is a requirement to deliver a solution to recover residual costs. Altering any resulting negative locational signal is not within its scope. Except for two Scottish charging zones, the incentive and opportunity for customers to increase demand will be low, and the Reform of Access and Forward-Looking Charges SCR is expected to address this from April 2023.The options that set a p/day tariff to correct an effect from uncapped locational that some claim is problematic, give revenue to users who may not normally even consume much over the triad, and move a short term locational cost-reflective tariff into a residual tariff - distorting the economic signal, as the p/day tariff is paid irrespective of the activity of the site. Separating sites based on voltage as per WACM9 would deepen the distortion between sites in Scotland and the rest of GB, given that 132kV is Transmission in Scotland. Under WACM9, connecting Tx-demand users' behaviour could be distorted, which is bad for competition : a user might accept a more expensive initial connection charge in order to connect at a lower voltage. Since the voltage boundary cannot be examined or adjusted at the beginning of price control periods under WACM9, if it is later found to be unsuitable as the network

evolves, it will have to be altered through a modification, whereas the baseline (and bands based on consumption) have the flexibility to change with network developments. Bandings based on voltage are therefore negative against ACO(e). The Direction from the Authority suggested alternative options for banding transmission sites, but only in terms of size ("substantially smaller sites") and so banding based on voltage is negative against ACO(c). On the matter of volatility if a new site arises : the absolute changes are relatively small when introducing a larger than average site in a band : a few thousand pounds difference. The volatility aspect seems to be no different to what arises from what Ofgem has already approved for LV, HV and EHV residual distribution charges.

Vote 2 – *Which option is the best?*

Panel Member	BEST Option?
Andy Pace	WACM2
Cem Suleyman	WACM2
Garth Graham	Original
Andrew Enzor for Grace March	Original
Jon Wisdom	WACM2
Joe Dunn	Original
Paul Jones	WACM2
Paul Mott	WACM5

Panel conclusion

- The CUSC Panel recommended unanimously that WACM2 better facilitated the CUSC Objectives than the Baseline (the arrangements currently set out in CUSC).
- The CUSC Panel recommended by majority that the Original, WACM1, WACM6, WACM7, WACM8 and WACM9 better facilitated the CUSC Objectives than the Baseline.
- For the other proposed solutions, of the 8 Panel votes cast:
    - 4 recommended that WACM5 better facilitated the CUSC Objectives than the Baseline; and
    - 3 recommended that WACM3 and WACM4 better facilitated the CUSC Objectives than the Baseline.

The table below shows how many votes were in favour of the proposed solutions being better than the Baseline.

Proposed Solution	Of the 8 votes, how many said that this option was better than the Baseline
Original	7
WACM1	7
WACM2	8
WACM3	3
WACM4	3
WACM5	4
WACM6	6
WACM7	6
WACM8	6
WACM9	7

CMP340

Vote 1: ***Does the Original, WACM1 or WACM2 facilitate the objectives better than the Baseline (the current CUSC arrangements)?***

Panel Member – Andy Pace

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Neutral	Yes
WACM1	Yes	Yes	Neutral	Neutral	Yes
WACM2	Yes	Yes	Neutral	Neutral	Yes
Voting Statement This modification implements CMP343 into sections 3 and 11 of the CUSC. It is a consequential change and meets the applicable CUSC objectives (a) and (b).					

Panel Member – Cem Suleyman

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Yes	Yes
WACM1	Yes	Yes	Neutral	Yes	Yes
WACM2	Yes	Yes	Neutral	Yes	Yes

Voting Statement
I believe that all options better facilitate the Applicable CUSC Objectives for the same reasons as provided by the Proposer.

Panel Member – Garth Graham

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Neutral	Yes
WACM1	Yes	Yes	Neutral	Neutral	Yes
WACM2	Yes	Yes	Neutral	Neutral	Yes

Voting Statement
The Original and the two WACMs ensure that the ten CMP343 options can be implemented into the CUSC depending upon which of those ten options the Authority's approves. In terms of CMP340, the Original and the two WACMs are better in terms of Applicable Objectives (a) and (b) as they efficiently discharge the Authority's TCR SCR decision and facilitate effective competition (for the broad reasons the Authority set out in their November 2019 document). They are neutral in terms of (c) and (d). For the reasons noted in my 'sister vote' for CMP343, the CMP340 Original is the better of the three options although there are positive attributes in the two WACMs (in the context of the associated CMP343 WACMs) which may lend themselves to the Authority.

Panel Member – Andrew Enzor for Grace March

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Overall (Y/N)
Original	Neutral	Neutral	Neutral	Yes	Yes
WACM1	Neutral	Neutral	Neutral	Yes	Yes
WACM2	Neutral	Neutral	Neutral	Yes	Yes

Voting Statement
All modification proposals may better facilitate ACO(d) depending on if a CMP343 WACM is approved, and if so, which one. The corresponding CMP340 WACM will facilitate efficient implementation of the relevant CMP340 WACM. Original selected as the best option as it is corresponds with CMP343 Original, identified as the preferred option in the corresponding CMP340 vote.

Panel Member – Jon Wisdom

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Yes	Yes
WACM1	Yes	Yes	Neutral	Yes	Yes
WACM2	Yes	Yes	Neutral	Yes	Yes

Voting Statement

As CMP340 is required to support implementation of Ofgem's TCR decision and the associated benefits and contributes to supporting the ESO's license obligation to deliver the TCR decision, all the options presented are positive in respect of Applicable CUSC Objectives A, B and D.

The options are facilitative and therefore there is no "best" option

Panel Member – Joe Dunn

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Neutral	Yes
WACM1	Yes	Yes	Neutral	Neutral	Yes
WACM2	Yes	Yes	Neutral	Neutral	Yes

Voting Statement

CMP340 Original and WACMs 1 and 2 better facilitate:

i) ACO (a) as they all discharge the licensee's obligations under the TCR direction, and

ii) ACO (b) as the definitions allow the appropriate implementation of CMP343

Panel Member – Paul Jones

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Overall (Y/N)
Original	Yes	Yes	Yes	Yes	Yes
WACM1	Yes	Yes	Yes	Yes	Yes
WACM2	Yes	Yes	Yes	Yes	Yes
Voting Statement All better meet objective d) by facilitating the implementation of an associated solution to CMP343.					

Panel Member – Paul Mott

	Better facilitates ACO (a)?	Better facilitates ACO (b)?	Better facilitates ACO (c)?	Better facilitates ACO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Yes	Yes
WACM1	Yes	Yes	Neutral	Yes	Yes
WACM2	Yes	Yes	Neutral	Yes	Yes
Voting Statement This mod is needed in the appropriate form (Original, WACM1 or WACM2) to match the chosen variant of CMP343 that Ofgem passes, in definitions. In truth it's just a follow on from the CMP343 decision that one of these has to then be chosen. However, you forced us to choose a "best", so I chose on that corresponds to WACM5 of CMP343.					

Vote 2 – *Which option is the best?*

Panel Member	BEST Option?
Andy Pace	Original
Cem Suleyman	N/A
Garth Graham	Original
Andrew Enzor for Grace March	Original

Jon Wisdom	N/A
Joe Dunn	Original
Paul Jones	N/A
Paul Mott	Original

Panel conclusion

- The CUSC Panel recommended unanimously that the Original, WACM1 and WACM2 better facilitated the CUSC Objectives than the Baseline (the arrangements currently set out in CUSC).

When will this change take place?

The Authority has issued a modified Direction[7] to ESO to withdraw CMP332 and raise a new Proposal to give effect to the TCR Decision with an implementation date of 1 April 2022.

An Authority decision is needed as soon as is practicable to support the development of the substantial system and process changes at ESO and within Industry needed to implement the solution. The current timescales for the modification are to deliver the Final Modification Report to Ofgem on 6 October 2020. Until a decision is received from the Authority on the preferred solution there is still uncertainty about some of the finer points of the solution where alternatives may be raised. This uncertainty impacts on implementation planning capability. To minimise inefficient system and process change planning the ESO needs to receive a decision from the Authority on CMP343 by 30 November 2020.

Acronyms, key terms and reference material

Acronym	Meaning
BSC	Balancing and Settlement Code
Baseline	The current methodology in code
CMP	CUSC Modification Proposal
CUSC	Connection and Use of System Code
DCLF ICRP model	Direct Current Load Flow Investment Cost Related Pricing Model – otherwise known as the Transport and Tariff model for calculating TNUoS tariffs.
DCP	Distribution Code Proposal
DCUSA	Distribution Connection and Use of System Agreement
DNO	Distribution Network Operator
EAC	Estimated Annual Consumption
EHV	Extra High Voltage
ESO	National Grid Electricity System Operator

[7] https://www.ofgem.gov.uk/publications-and-updates/consent-withdraw-cmp332-and-direction-raise-new-cusc-modification-proposal-new-transmission-demand-residual-charges-targeted-charging-review-tcr-1

EV	Electric Vehicle
FDS	Final Demand Site
HH	Half Hourly
HV	High Voltage
IDNO	Independent Distribution Network Operator
LLFC	Line Loss Factor Class
LV	Low Voltage
MCB	Measurement Class B
MCD	Measurement Class D
MIC	Maximum Import Capacity
MPAN	Meter Point Administration Number
MRA	Master Registration Agreement
NETSO	National Electricity Transmission System Operator
NHH	Non-Half Hourly
PID	ENA Targeted Charging Review Project Initiation document
SCR	Significant Code Review
TNUoS	Transmission Network Use of System
TCR	Targeted Charging Review
TDR	Transmission Demand Residual
UMS	Unmetered Supplies

Reference material:

1. Ofgem direction letter
2. Ofgem Targeted Charging Review decision
3. ENA Targeted Charging Review Project Initiation document
4. ENA Targeted Charging Review Updated Project Initiation document
5. Ofgem updated direction letter with implementation date April 2022

Annexes

Annex	Information
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Annex 2	CMP340 Proposal Form
Annex 3	CMP343 Terms of Reference
Annex 4	CMP340 Terms of Reference
Annex 5	CMP332 Workgroup Consultation
Annex 6	CMP332 Workgroup Consultation Responses Summary
Annex 7	CMP332 Workgroup Consultation Responses
Annex 8	Updated Transmission Banding Analysis

Annex 9	Updated Transmission Banding Analysis - Assumptions
Annex 10	£ Per Site Locational Adjustment Analysis
Annex 11	CMP343 Workgroup Alternative Proposal Forms
Annex 12	CMP340 Workgroup Alternative Proposal Forms
Annex 13	CMP343 & CMP340 Workgroup Consultation Responses Summary
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Annex 15	CMP340 Legal text
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Annex 17	CMP343 Workgroup Vote
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Annex 20	CMP343 & CMP340 Code Administrator Consultation responses