

CUSC Alternative and Workgroup Vote

CMP343: Transmission Demand Residual bandings and allocation for 1 April 2022 implementation (TCR)

Please note: To participate in any votes, Workgroup members need to have attended at least 50% of meetings.

Stage 1 - Alternative Vote

If Workgroup Alternative Requests have been made, vote on whether they should become Workgroup Alternative Code Modifications.

Stage 2 - Workgroup Vote

2a) Assess the original and WACMs (if there are any) against the CUSC objectives compared to the baseline (the current CUSC).

2b) If WACMs exist, vote on whether each WACM better facilitates the Applicable CUSC Objectives better than the Original Modification Proposal.

2c) Vote on which of the options is best.

The Applicable CUSC Objectives (Charging) are:

- 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. Promoting efficiency in the implementation and administration of the CUSC arrangements.

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

Workgroup Vote

Stage 1 – Alternative Vote

Vote on Workgroup Alternative Requests to become Workgroup Alternative Code Modifications.

The Alternative vote is carried out to identify the level of Workgroup support there is for any potential alternative options that have been brought forward by either any member of the Workgroup OR an Industry Participant as part of the Workgroup Consultation.

Should the majority of the Workgroup OR the Chairman believe that the potential alternative solution would better facilitate the CUSC objectives (against Baseline or the Original) then the potential alternative will be fully developed by the Workgroup with legal text to form a Workgroup Alternative Code modification (WACM) and submitted to the Panel and Authority alongside the Original solution for the Panel Recommendation vote and the Authority decision.

“Y” = Yes

“N” = No

“-“ = Neutral

Workgroup Member	Company	Alternatives								
		1	2	3	4	5	6	7	8	9
		Floor 2	Floor 4	No floor 1	No floor 2	No floor 4	Loc Adj 1	Loc Adj 2	Loc Adj 4	Floor Voltage
Eleanor Horn	National Grid ESO	Y	Y	Y	Y	Y	Y	Y	Y	Y
Karl Maryon (Paul Bedford)	Haven Power Limited	Y	Y	N	N	N	Y	Y	Y	Y
Garth Graham	SSE	Y	Y	Y	Y	Y	Y	Y	Y	Y
Simon Lord	Engie	Did not attend Alternative Vote on Alternatives 1 - 8								Y
Simon Vicary	EDF Energy	Y	Y	Y	Y	Y	Y	Y	Y	N
Robert Longden	Cornwall Insight	Y	Y	Y	Y	Y	Y	Y	Y	Y
Grace March	Sembcorp	Y	Y	Y	Y	Y	N	N	N	Y
Lee Stone	E.ON	Y	Y	Y	Y	Y	Y	Y	Y	Y
WACM ?		WACM1	WACM2	WACM3	WACM4	WACM5	WACM6	WACM7	WACM8	WACM9

Stage 2a – Assessment against objectives

To assess the original and WACMs against the CUSC objectives compared to the baseline (the current CUSC).

You will also be asked to provide a statement to be added to the Workgroup Report alongside your vote to assist the reader in understanding the rationale for your vote.

ACO = Applicable CUSC Objective

Workgroup Member	Better facilitates ACO (a)	Better facilitates ACO (b)	Better facilitates ACO (c)	Better facilitates ACO (d)	Better facilitates ACO (e)	Overall (Y/N)
Eleanor Horn / Grahame Neale, National Grid ESO						
Original	Y	Y	Y	-	-	Y
WACM1	Y	Y	N	-	N	Y
WACM2	Y	Y	N	-	N	Y
WACM3	N	Y	Y	-	-	N
WACM4	N	Y	N	-	N	N
WACM5	N	Y	N	-	N	N
WACM6	Y	Y	Y	-	N	N
WACM7	Y	Y	N	-	N	N
WACM8	Y	Y	N	-	N	N
WACM9	Y	Y	Y	-	-	Y

Voting statement:

The decoupling of locational and residual tariffs introduces a perverse behavioural incentive to consume energy across the peak periods on the network. This acts against signals in other markets (like the wholesale market) and acts as a distortion to effective competition.

Therefore, all alternatives that introduce this behavioural signal are worse against ACO (a). All other alternatives improve competition in the supply of electricity by moving the residual charge to a fixed per site charge without introducing a perverse incentive to consume at peak Times.

The TCR residual charging methodology improves cost reflectivity by ensuring that residual charges are unavoidable and that all users of the network face the same charges as others that are similar to them (in the same charging band).

The ESO does not believe that the introduction of Charging Bands for Transmission connected sites for the purpose of Transmission Residual Charging improves the baseline against ACO (c) or ACO (e). This is because the Charging Bands proposed in the alternatives for Transmission connected sites will create very small cohorts of sites in one band. For the purpose of TNUoS charging all of the Charging Bands for lower voltage connected sites will have over 100 different connections (based on the latest ESO estimates) but at Transmission in the proposed alternatives there will be some bands with fewer than 10 connections. This creates a large volatility risk for charges year on year as the behaviour of each individual site will have a large impact on the tariff for the whole band. This impact is reduced the more sites there are in a band and is therefore not a significant concern for TNUoS charging at lower voltages. Banding for Transmission Connected sites on the basis of consumption also fails to take into account new connections and consequently fails to enable the charging methodology

to adequately account for new connections. Therefore, all alternatives with multiple transmission bands perform worse under these ACOs.

WACMs 6,7 and 8 introduce a highly complex methodology that will create distinct residual tariffs for each charging band in each GSP group resulting in between 266 and 308 different tariffs. This is too complex and cumbersome for an interim solution and performs poorly against ACO (e).

Workgroup Member	Better facilitates ACO (a)	Better facilitates ACO (b)	Better facilitates ACO (c)	Better facilitates ACO (d)	Better facilitates ACO (e)	Overall (Y/N)
Karl Maryon, Haven Power / Paul Bedford, Opus Energy						
Original	Y	Y	Y	-	-	Y
WACM1	Y	Y	Y	-	-	Y
WACM2	Y	Y	Y	-	-	Y
WACM3	N	N	Y	-	-	N
WACM4	N	N	Y	-	-	N
WACM5	N	N	Y	-	-	N
WACM6	N	Y	Y	-	-	Y
WACM7	N	N	Y	-	-	N
WACM8	N	N	Y	-	-	N
WACM9	Y	Y	Y	-	-	Y

Voting statement:

Original: ACO (a) – Positive – the Original Proposal promotes effective competition by ensuring that customers will no longer be able to avoid the costs of residual transmission charges. Positive with ACO (b) - that compliance with the use of system charging methodology results in charges which reflect the costs incurred by transmission licensees in their transmission businesses and positive with ACO (c) - the ESO has been directed to raise this modification and implement its effects by the Authority. We do not believe that any of the CMP343 proposed alternative solutions better facilitate the ACOs than the Original.

WACM:1/2/7/8 – We do have some concerns that multiple bands could potentially encourage customers to reconfigure their sites in order to benefit from cheaper Annual Tariffs.

WACM: 3/4/5 - If flooring was not applied, there would be a perverse incentive for Demand Users to consume at peak TRIAD periods.

WACM 6 - We favour the Original Proposal over WACM 6, as we believe it to be a robust and less complex solution.

WACM 9 – We believe that this alternative proposal, to create bands into which Transmission-connected Final Demand Sites will be allocated based on voltage, should be explored further, and with appropriate supporting analysis when developed as a WACM.

Workgroup Member	Better facilitates ACO (a)	Better facilitates ACO (b)	Better facilitates ACO (c)	Better facilitates ACO (d)	Better facilitates ACO (e)	Overall (Y/N)
Garth Graham / Andrew Colley, SSE						
Original	Y	Y	Y	-	-	Y
WACM1	Y	Y	Y	-	-	Y
WACM2	Y	Y	Y	-	-	Y
WACM3	Y	Y	Y	-	-	Y
WACM4	Y	Y	Y	-	-	Y
WACM5	Y	Y	Y	-	-	Y
WACM6	Y	Y	Y	-	-	Y
WACM7	Y	Y	Y	-	-	Y
WACM8	Y	Y	Y	-	-	Y
WACM9	Y	Y	Y	-	-	Y

Voting statement:

In the Authority's TCR SCR decision document (along with the associated information) 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 has considered the effects of their 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.

Workgroup Member	Better facilitates ACO (a)	Better facilitates ACO (b)	Better facilitates ACO (c)	Better facilitates ACO (d)	Better facilitates ACO (e)	Overall (Y/N)
Simon Lord / Andy Rimmer, Engie						
Original	Y	N	-	-	-	N
WACM1	Y	N	-	-	-	N
WACM2	Y	Y	-	-	-	Y
WACM3	Y	N	-	-	-	N
WACM4	N	N	-	-	-	N

WACM5	N	N	-	-	-	N
WACM6	N	N	-	-	-	N
WACM7	N	N	-	-	-	N
WACM8	N	N	-	-	-	N
WACM9	Y	Y	-	-	-	Y

Voting statement:

I have voted for WACM2 and 9 as these are the two options that deal with flooring and transmission banding in an appropriate way.

Flooring: - The tariff should be floored as the most practical option until the SCR determined the way forward. Options with no flooring present a real time driver to consume demand over the triad. The signal is not economically efficient as the magnitude of the driver is very significant and will lead to inappropriate consumption at a time of the systems highest demands and because of the uncertainty of the position of the triads this will drive addition consumption during multiple time periods. The options that set a p/day tariff to correct the effect give revenue to providers who may not normally consume over the triad and move a short terms location tariff into a residual tariff and again give the incorrect economic signal as the tariff is paid irrespective of the activity of the site.

Transmission bands: -

These should be either 4 bands or voltage driven. The best option is the 4 band as there is a link to the size of assets that are installed for the site, option with voltage bands also have this effect but to a lesser extent. Options with only one band are too simplistic and effectively allow a cross subsidy from smaller site to larger ones with significantly more assets likely to be installed in sites that have large consumptions.

Workgroup Member	Better facilitates ACO (a)	Better facilitates ACO (b)	Better facilitates ACO (c)	Better facilitates ACO (d)	Better facilitates ACO (e)	Overall (Y/N)
Simon Vicary / Binoy Dharsi, EDF						
Original	-	Y	-	-	-	Y
WACM1	-	Y	-	-	-	Y
WACM2	Y	Y	-	-	-	Y
WACM3	-	Y	-	-	-	Y
WACM4	-	Y	-	-	-	Y
WACM5	Y	Y	-	-	-	Y
WACM6	-	Y	-	-	-	Y
WACM7	-	Y	-	-	-	Y
WACM8	Y	Y	-	-	-	Y
WACM9	N	N	-	-	-	N

Voting statement:

The optimal solution needs to address the comparative distortions to sites that connect either to the distribution or transmission network. The alternative proposals with multiple transmission bands using the percentile approach as used for the Distribution level, but based on consumption (as there is no suitable equivalent capacity at transmission level), go some way to achieving this.

The direction of this modification is to deliver a solution to recover residual costs. Altering any resulting negative locational signal is not within the scope of this modification. Except for two zones, the incentive and opportunity for customers to increase demand will be low. The Reform of Access and Forward-Looking Charges SCR is expected to address this from April 2023.

The alternatives that split the Transmission band by voltage are inconsistent with the approach for the Distribution level and create an arbitrary allocation of sites by not taking account of their size, so fail to facilitate any of the Applicable CUSC Objectives.

The best solution is WACM5, with 4 transmission bands as used for the Distribution level, to avoid distortive charges between small and large sites. Having 4 transmission bands, and maintaining the prevailing locational signal, will deliver more cost reflective and fairer prices to sites connected at Transmission level.

Workgroup Member	Better facilitates ACO (a)	Better facilitates ACO (b)	Better facilitates ACO (c)	Better facilitates ACO (d)	Better facilitates ACO (e)	Overall (Y/N)
Robert Longden, Cornwall Insight						
Original	Y	Y	-	-	-	Y
WACM1	Y	Y	-	-	-	Y
WACM2	Y	Y	-	-	-	Y
WACM3	N	Y	-	-	-	Y
WACM4	N	Y	-	-	-	Y
WACM5	N	Y	-	-	-	Y
WACM6	N	N	-	-	-	N
WACM7	N	N	-	-	-	N
WACM8	N	N	-	-	-	N
WACM9	Y	Y	-	-	-	Y

Voting statement:

The changes to the TDR are mandated by Ofgem and therefore all the alternatives seek to achieve this. Negative charges provide a perverse incentive and are not a desirable outcome. Making an adjustment through conflating locational charging and a fixed charge per day may “mitigate” this but is based upon a flawed principle. The GB transmission system is a single system. Without very complex analysis it is difficult to determine “how much” of it transmission users utilise, based on their consumption level alone. Therefore banding at transmission level presents difficulties.

Workgroup Member	Better facilitates ACO (a)	Better facilitates ACO (b)	Better facilitates ACO (c)	Better facilitates ACO (d)	Better facilitates ACO (e)	Overall (Y/N)
Grace March, Sembcorp						
Original	Y	Y	Y	-	-	Y
WACM1	Y	Y	Y	-	-	Y
WACM2	Y	Y	Y	-	-	Y
WACM3	Y	Y	Y	-	-	Y

WACM4	N	Y	Y	-	-	Y
WACM5	N	Y	Y	-	-	Y
WACM6	N	N	N	-	N	N
WACM7	N	N	N	-	N	N
WACM8	N	N	N	-	N	N
WACM9	Y	Y	N	-	N	Y

Voting statement:

On flooring of locational tariffs: Not having a floor could adversely affect competition as some users will have invested in load-shifting technology (such as BtM generation) or energy efficiency measure to reduce their demand over Triad periods. Users in potentially negative zones will see an effective reversal of price signal and so will be adversely affected compared to users who have not altered their behaviour in line with existing price signals. The floor is less cost-reflective than no floor, as it lessens the locational price signal from the T&T model. However, the baseline methodology for the TDR is a greater signal distortion, so removing the TDR from Triad will still leave floored WACMs as positive overall against ACO(b), although less so than WACMs with no floor. Not having a floor on locational tariffs is largely neutral against ACO(a).

Multiple bands at Transmission level are less cost-reflective than a single band, as the risk (and financial penalty) of moving into a higher band is considerable. Once in a higher band, the massively higher charges will apply for the rest of the price control, meaning multiple bands are sending a signal to keep average consumption below the cut-off point. Given the boundary is essentially arbitrary (it is not related to cost incurred by the network), this price signal is not cost-reflective. Multiple bands (based on consumption) therefore facilitate ACO(b) less than WACMs with a single band, but removing the TDR from Triad lessens the overall non-cost-reflective distortion this Modification was raised to address. More bands create a stronger signal, as more users will be close to an upper boundary. The small number of sites in the multiple bands means those WACMs are less positive against ACO(a) as an individual's charge may well be affected by other users in the same band (such as disconnection, lessening demand or gaming to be charged as two smaller sites). It has not been clearly illustrated why larger sites, who have the same access to the same Transmission Grid, balancing mechanism, license and contractual obligations, should be separated. Separating sites based on voltage is neutral overall against ACO(a): it appears to deepen the distortion between sites in Scotland and the rest of GB, given that 132kV is Transmission in Scotland, but the charges for those sites are comparable to EHV sites in the rest of GB, which is arguably fairer, given it is a different definition of Transmission, rather than a fundamental physical difference. Bands based on voltage are less positive against ACO(b) as Users generally do not have choice as to what voltage they connect at. Users can request a voltage but the TO decides what connection offer is best and that consideration will not include significantly greater (and on-going) TDR charges. It could be creating a signal for Users to accept a more expensive initial connection charge in order to connect at a lower voltage. This signal would be a smaller distortion than the existing Triad distortion so is positive for ACO(b) overall. Since the voltage boundary cannot be examined or adjusted at the beginning of price control periods, if it is 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). Whilst the Direction from the Authority suggested alternative options for banding transmission sites, it was worded in terms of size ("substantially smaller sites") and so banding based on voltage is negative against ACO(c).

A single transmission band is most positive against ACOs(a) and (b), whilst also following the Authority's conclusions to the TCR and aligning with the Impact Analysis. It also eliminates the need to separate types or sizes of sites out, which cannot be justified as they are connected to the same network.

The suggested locational adjustment is negative against ACO(a) compared to the baseline, as the charging base for the two methodologies are different and it will not result in an even solution but instead impact users who can/do avoid Triad differently compared to those who cannot/do not. It is strongly negative against ACO(b): Triad and the TDR reflect different costs, hence the need to separate the charging structures. Altering the TDR amount by locational will be sending a location signal that is not reflective of the residual cost. By altering the TDR by location, a new non-cost-reflective element is introduced, which negates any improvement on the baseline. The baseline TDR, whilst avoidable, does not send a locational signal and any residual recovery should avoid doing so. A key point of the Authority's decision on the TCR (and corresponding direction) is that the TDR should be flat across GB, to avoid sending any location signal: the WACMs that propose a locational adjustment are in direct opposition to this, and so negative against ACO(c). The proposed methodology is complicated to understand and implement and is likely to cause confusion amongst users and introduces instability as the reduction is dependent on the amount recovered/tariff set in the forward-looking element. The proposed methodology is also likely to be replaced as part of the Reform of Access and Forward-Looking Charges SCR in 2023, and so is impractical for one year. These WACMs are therefore negative against ACO(e).

Workgroup Member	Better facilitates ACO (a)	Better facilitates ACO (b)	Better facilitates ACO (c)	Better facilitates ACO (d)	Better facilitates ACO (e)	Overall (Y/N)
Lee Stone, E.ON						
Original	Y	Y	Y	-	-	Y
WACM1	Y	Y	Y	-	-	Y
WACM2	Y	Y	Y	-	-	Y
WACM3	Y	Y	Y	-	-	Y
WACM4	Y	Y	Y	-	-	Y
WACM5	Y	Y	Y	-	-	Y
WACM6	Y	Y	Y	-	N	Y
WACM7	Y	Y	Y	-	N	Y
WACM8	Y	Y	Y	-	N	Y
WACM9	Y	Y	Y	-	-	Y

Voting statement:

WACM 3: - positive against ACO a,b,c & e.

I believe WACM 3 best facilitates the TCR direction because it meets the TCR direction better than all others. This is because the workgroup were informed by the Ofgem representative that the modelling that informed Ofgem's TCR decision did not adjust negative TNUoS charges to zero. Whilst this may create an incentive for Demand Users to consume at peak TRIAD periods I believe this matter for the Reform of Access and Forward-Looking Charges

(AFLC) SCR to address, Therefore I believe the Original Proposal is not aligned with the TCR decision.

I do not believe that multiple Transmission band options are viable as the number of Transmission connected final demand customers is too small to warrant anything other a single transmission band. 2+ transmission bands create the possibility for sharp cliff edges in transmission costs per site, which may encourage customers to reconfigure sites in order to move lower cost bandings leaving an even smaller group of customers picking up larger a proportion of the TDR. Whereas a single banding offers better charging certainty for all transmission connected customers whilst also ensuring that users contribute their fair share of the transmission connected TDR.

I feel that options to make a locational tariff adjustment would be overly complex and overly burdensome, as that would create distinct residual tariffs for each charging band in each GSP group but only aim to adjust on GSP groups for a short 12-month period until AFLC addresses the distortion.

Stage 2b – WACM Vote (If required)

Where one or more WACMs exist, does each WACM better facilitate the Applicable CUSC Objectives than the Original Modification Proposal?

Workgroup Member	Company	Is WACM better than the Original? Yes/No								
		1	2	3	4	5	6	7	8	9
Eleanor Horn	National Grid ESO	N	N	N	N	N	N	N	N	N
Karl Maryon	Haven Power Limited	N	N	N	N	N	N	N	N	N
Garth Graham	SSE	N	N	N	N	N	N	N	N	N
Simon Lord	Engie	N	Y	N	N	N	N	N	N	Y
Simon Vicary	EDF Energy	Y	Y	Y	Y	Y	N	Y	Y	N
Robert Longden	Cornwall Insight	N	N	N	N	N	N	N	N	N
Grace March	Sembcorp	N	N	N	N	N	N	N	N	N
Lee Stone	E.ON	N	N	Y	N	N	N	N	N	N

Stage 2c – Workgroup Vote

Which option is the best? (Baseline, Proposer solution (Original Proposal) or WACMs1 - 9)

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

Option	Number of voters* that voted this option as better than the Baseline *8 voters
Original	7
WACM1	7
WACM2	8
WACM3	5
WACM4	5
WACM5	5
WACM6	4
WACM7	3
WACM8	3
WACM9	7