

Workgroup Consultation

CMP425: Billing Demand Transmission Residual by Site

Overview: This modification is to provide clarity within the CUSC on how the residual demand charges should be divided between multiple Suppliers at one Connection Site.

Modification process & timetable

Proposal Form 24 October 2023

Workgroup Consultation

10 November 2023- 15 November 2023

Workgroup Report

3 22 November 2023

4

5

6

Code Administrator Consultation

24 November 2023 – 29 November 2023

Draft Final Modification Report

17 November 2023

Final Modification Report

06 December 2023

Implementation

01 April 2025

Have 5 minutes? Read our Executive summary

Have 20 minutes? Read the full Workgroup Consultation

Have 60 minutes? Read the full Workgroup Consultation and Annexes.

Status summary: The Workgroup are seeking your views on the work completed to date to form the final solution to the issue raised.

This modification is expected to have a: High Impact to parties on demand sites with TO connection(s) that may wish to have separate Suppliers at the same site. Low impact on ESO's billing.

Governance route	Urgent modification to proceed under a timetable agreed by the Authority (with an Authority decision).	
Who can I talk to about the change?	Proposer: Andy Marsh Andrew.Marsh@nissan- nmuk.co.uk 0191 415 0000	Code Administrator Chair: Milly Lewis Milly.Lewis@nationalgrideso.co m 07811036380
How do I respond?	Send your response proforma to cusc.team@nationalgrideso.com by 5pm on 15 November 2023.	



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Executive summary

TO connected demand sites with multiple users wish to choose their own Suppliers without being penalised and discriminated against by the CUSC charging arrangements.

The change is required so that customers are charged in line with the Authority's Targeted Charging Review (TCR) principles of fairness, practicality, and transparency.

The Authority approved that this proposal be treated as <u>Urgent</u>. As a result, it is progressing at pace and there will be a period shorter than normal for this Workgroup Consultation.

What is the issue?

The CUSC does not specify how residual charges should be applied in circumstances where a single Connection Site has more than one Supplier across multiple BMUs associated with it.

Without clarification, there is the risk that in this situation, where there are different Suppliers for each of the BMUs, the current ESO billing system would charge customers the demand residual as if each BMU were a Connection Site rather than charging the Connection Site as a whole, as was the intent of the Authority's Targeted Charging Review.

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

Proposer's solution: To amend 14.17.13 of the CUSC, and other minor consequential amendments.

Implementation date: 01 April 2025, or as soon as practical.

Summary of potential alternative solution(s) and implementation date(s):

No alternative solutions have been raised.

What is the impact if this change is made?

This modification is expected to have a high impact to parties on demand connection sites which are connected to the GB transmission system that may wish to have separate Suppliers and a low impact on ESO's billing.

Interactions

This modification has no interaction with other live modifications.

However, this modification is linked to a number of TCR related issues being discussed within the Distribution Connection Use of System Agreement (including <u>DCP328</u>: Use of system charging for private networks with competition in supply and <u>DCP388</u>: Amendments to Facilitate Appropriate Residual Charging for Sites with a Mix of Final and Non-Final Demand)



What is the issue?

Section 14.17 of the Connection and Use of System Code (CUSC) states that Transmission Demand Residual charges are billed to the Lead Party of a Balancing Mechanism Unit (BMU) with Final Demand. Most Transmission Owner (TO) connected demand Connection Sites only have one Supplier, so are effectively charged residual charges per site.

However, also within Section 14 it describes how these charges are made to each TO Connection Site with Final Demand.

Additionally, the CUSC does not specify what should happen in circumstances where a single Connection Site (or customer on a site) has more than one BMU associated with it.

Without clarification, there is the risk that where there are multiple BMUs and/or different Suppliers for each of the BMUs at a site, the current ESO billing system would charge customers as if each BMU were a Connection Site rather than charging the Connection Site as a whole, as was the intent of the Targeted Charging Review (TCR).

For customers this incentivises them to have only one Supplier and one BMU, reducing competition in supply to the detriment of customers.

The Proposer's site will have 2 large customers connected at the same Connection Site who would currently pay 2 x TD4 residual band. If they shared a Supplier, they would only pay 1 x TD4 residual band. If they happened to be Distribution Network Operator (DNO) connected they would pay EHV4 residual band.

This means customers that are TO connected are charged more than DNO connected parties, despite using the same capacity, and are incentivised to have the same Supplier to keep costs down, limiting customer choice and competition in Supply.

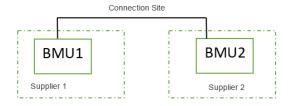


Figure 1. the desired Supplier set up for the Proposer

Why change?

TO connected demand sites with multiple users wish to choose their own Suppliers without being penalised and discriminated against by the CUSC charging arrangements.

This change is required so that customers are charged in line with the Authority's Targeted Charging Review principles of fairness, practicality, and transparency.

The current arrangements have some further impacts, such as forcing the customers to compromise over the type of Supplier they must agree to. For example, one customer may want green energy, and another may not, but they are forced to compromise with



their neighbours to keep their total cost of supply down. For large energy users such as Nissan and AESC UK this is a critical cost in maintaining their competitiveness in international markets.

For larger customers there is often a very limited choice of Suppliers due to few being willing to take on the risk of such large demand profiles. By allowing the parties to choose their own Suppliers this is likely to make it easier for each customer to find the right Supplier to meet their business needs.

Nissan and AESC UK do not believe that bandings are meant to distort competition in the manner identified, as historically most TO connected customers have been interrelated customers, such as industrial gases and chemical, often located behind the meter of generation that provides secure supplies to critical UK manufacturers. However, for Nissan and AESC UK with their new connection, that will not be the case. In the longer term, new customers may locate on the site and may also want to be able to choose their own Suppliers to best meet their own business needs.

Further, the Proposer suspects, now that Energy Intensive Industries (EIIs) are no longer facing Final Consumption Levies (FCLs) and may benefit from transmission charges discounts, some of them may also now wish to seek third party supplies and have been discouraged by the transmission charging regime. This proposed rule change would therefore see them pay no more than their current proportion of transmission charges if they choose to move their demand into a Supplier BMU in their own right.

Were Nissan and AESC UK'S new site connection to be classed as an IDNO Nissan would be charged at EHV4 (as now), as would AESC UK, and in the longer term potentially other customers on the site. This would give an aggregate charge of c.£2.5m between Nissan and AESC UK. However, the Proposer agrees with the Authority that the IDNO model is not envisioned within the commercial and codes regimes covering the transmission system. So, at least for now, the sites will be on a private network and will therefore have non-standard BSC metering aggregated up into a number of Supplier BMUs.

Nissan and AESC UK note that the current charging regime does create a significant distortion in competition by charging DNO and TO connected sites with the same demand, residual charges that are materially different. Nissan and AESC UK's site operates 24/7 for all but 2 weeks in the year. The Proposer struggles to understand why they are charged such different amounts for use of the same transmission capacity based on either their point of connection or their choice of Suppliers. They believe the Authority should consider this issue further, though it is not part of this modification proposal.

This change will have no impact on the total revenue ESO collects on behalf of the TOs, as each "site" will remain paying the same total charges. A new site connecting will increase the charging base from which the residual is connected, thus on average reducing residual charges on other customers. Any effect on bandings will be at the start of the new price control period.



What is the solution?

Proposer's solution

The proposal is to alter section 14.17 Parties Liable for Demand Charges, and minor consequential amendments.

The Proposer's initial solution was to amend 14.17.1 of the CUSC, however at the CUSC Panel on 27 October 2023, the Panel provided feedback to the Proposer that the proposed change would be better reflected within 14.17.13. The Proposer took this feedback and subsequently amended their proposed legal text ahead of being submitted to the Authority as part of the request for urgency. Both Proposal forms can be found in Annex 1.

Workgroup considerations

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

Transmission Charging Review (TCR) and CMP425 Scoping

The Workgroup discussed the link with the <u>Targeted Charging Review (TCR)</u>, published by the Authority in November 2021; where the Authority directed the ESO to bring forward modification proposals around Residual Charges and confirmed that Transmission Demand Residual (TDR) charges should be levied on a 'per site' basis.

The subsequent TDR modifications were implemented into the CUSC on 1 April 2023¹.

The Workgroup noted that the Distribution Connection and Use of System Agreement (DCUSA) DCP328 – 'Use of system charges for private networks with competition in supply' modification, which sought to address a similar issue in the context of distribution network charges, took 5 years to progress and was <u>rejected by the Authority</u> due to too many complex issues trying to be addressed within one modification.

The Workgroup agreed that whilst CMP425 looks to address a loosely similar issue, the difference between the modifications is that CMP425 is around providing clarity rather than a fundamental change. To this end and given the timeline and commercial considerations of the Proposer, CMP425 has been granted Urgency status by the Authority.

Connection Point versus Connection Site

Initially the Proposer's solution referred to where a connection point has more than one Supplier BMU. Through Workgroup discussion it was agreed to be changed to 'Connection Site' as this is an existing defined term² within the CUSC and better represented the Proposer's intent.

¹ See 'Reference Material' for the suite of the Transmission Demand Residual modifications.

² "each location more particularly described in the relevant Bilateral Agreement at which a User's Equipment and Transmission Connection Assets required to connect that User to the National Electricity Transmission System are situated (or, in the case of OTSDUW Build, each location that will become such from the Page 17 of 87 v1.90 – 1 April 2023 OTSUA Transfer Time and, until the OTSUA Transfer Time, is the location where the User's Equipment connects to the OTSUA). If two or more Users own or operate Plant and Apparatus which is connected at any particular location that location shall constitute two (or the appropriate number of) Connection Sites;"



In the discussions the Workgroup also noted that some TO connected sites have more than one point of connection, often for security reasons given the nature of their demand.

Capacity Usage versus Consumption

The Proposer was clear that the intent of the modification was to promote competition and that the demand residual charges should be split proportionally based on the consumption data supplied via the Balancing Settlement Code (BSC). However, the solution initially referred to dividing between the relevant Supplier BMUs in proportion to their capacity usage.

A Workgroup member explained that the TDR bands are set by consumption at site level and therefore for a consistent approach using the consumption at BMU(s) level was a logical approach to calculate the ratio of charges. It was agreed that the solution for CMP425 should be based on consumption rather than capacity.

The Workgroup noted that to allocate the demand residual charge of the overall band to a site, the idea of proportioning by volume is a pragmatic approach but this would need to be an annual exercise to proportion the Connection Site demand residual charge according to the BMU(s) consumption.

Codifying the Proportionality of Consumption

Some Workgroup members suggested that the method of splitting the proportionality of the demand residual charge should be through contracting between the Supplier and relevant parties; and that this had commonality with Bilateral Contract Agreements (BCAs) and not doing so would remove the flexibility for customers.

However, the Proposer disagreed, stating that the proportionality should be based on consumption data as the likelihood of Suppliers openly sharing data with their Users was slim. Where Suppliers are willing to share data, the Proposer suggested other commercial arrangements could be made separate to the charging by the ESO. This modification has arisen from where two customers on the same Connection Site want different types of supply deals and therefore want very clear rules on how the connection will work and how they will each be billed the demand residual charge.

The Proposer also noted that at the current time the ESO does not bill parties who are the BCA holder for these types of demand charges. The ESO bill for connection charges, but not charges related to use of the TO networks. It may therefore be more difficult, costly and take more time to implement such are arrangements. Further, where the BCA is held by a third party, such as a private network owner, those parties may seek credit from the customers for those charges before the ESO rebill them to the customers. This may therefore add cost and complexity for the customers.

ESO Views

The ESO representative provided the Workgroup with an explanation on the current processes in relation to TDR charges.



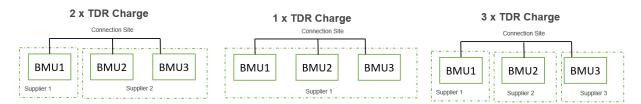


Figure 2. Examples of different TDR Charges

The ESO representative explained that, where there are multiple BMUs behind one "Connection Site" there is one charge, with the TDR being billed to each individual Supplier.

They stated that introducing multiple Suppliers at the same site introduces practical issues with how the charge is levied, with no existing sites doing this, and the ESO's billing system for transmission charges (which includes the demand residual charge) only set up to operate as shown in the middle diagram above.

Any change to this would, in the short term need to be a manual workaround by the ESO and longer-term be a system change by the ESO. However, the ESO questioned if doing this would set any precedent or wider implications. The ESO representative confirmed there is currently no example of this, but asked whether the Workgroup should consider this encouraging larger private networks forming to reduce TDR payments. Workgroup members considered the issues but did not believe this was a risk, nothing that this the risk exists with the current system either through single Supplier private networks or behind the meter connections and had already been considered as part of the TCR.

Residual Banding and Allocation of charges

The ESO Representative discussed the following examples with the Workgroup to explain the differences between how the ESO billing system is currently set up and how this would change were the CMP425 solution implemented:

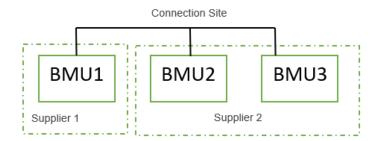


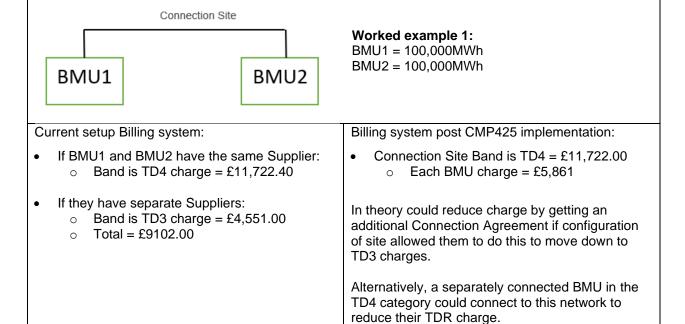
Figure 3. Example of allocation of charges

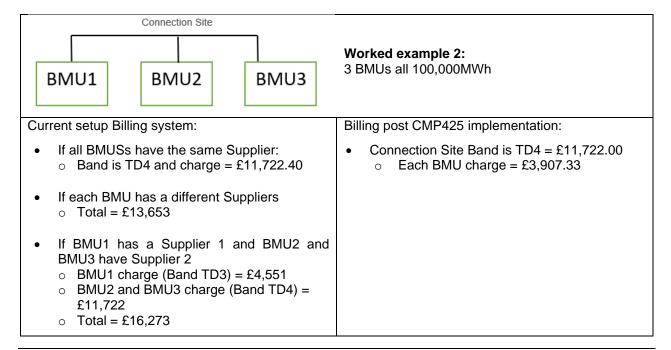
- Without any manual workaround, the current billing system would effectively split the above example into two "sites".
 - Consumption at BMU1 sets TDR band for Supplier 1 and BMU2 + BMU3 sets for Supplier 2
- CMP425 implementation would ensure that the TDR band would be set on consumption of BMU1 + BMU2 + BMU3 and then split the charge proportionally on the consumption for each Supplier.

ESC

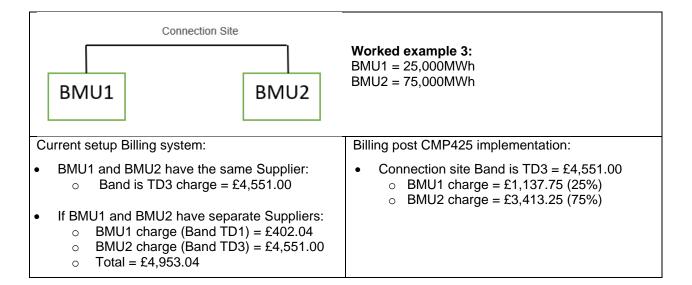
The following worked examples are calculated using the TDR bands charges:

	Threshold (kWh/MWh or kVA)		Site	Final TDR
Band	Lower	Upper	Count	Charge (£/site/Day)
T-Demand1	-	<= 33,548	29	402.04
T-Demand2	> 33,548	<= 73,936	19	1,678.27
T-Demand3	> 73,936	<= 189,873	13	4,551.00
T-Demand4	> 189,873	∞	5	11,722.40









ESO Billing System Impacts and Potential Workarounds

The ESO Representative confirmed that the ESO receives meter data associated with BMUs from the Balancing Settlement Code (BSC). Where BMUs at a Connection Site have different Suppliers, these could be flagged (manually or otherwise) to have the TDR shared across them.

The data believed to be required for the CMP425 solution such as which BMUs are assigned to which site (data held originating from Connection Agreements), and consumption data; is available from Elexon which provides it to the ESO. Due to this availability the builds to the ESO's billing system will be around functionality (inclusive of the ability to add/remove BMUs from a site if required) and therefore a lower impact than having to source the data from scratch.

The cost of any change to the ESO billing system and the time required to implement the required changes for CMP425 is currently not available to be shared as part of this Workgroup Consultation. However, the ESO Representative indicated that their preliminary assessment leads them to believe it will be a relatively low cost change.

Complex Sites

The letter granting CMP425 Urgency commented that the extent of the impact of this modification at the proposal stage was uncertain, particularly for complex sites3 Within the Workgroup it was confirmed that complex sites should be considered as sites that do not sit within one category, for example, a factory with a battery would be considered a complex site as battery demand would not contribute towards their TDR band.

The Proposer stated that by this definition the majority of TO connected sites could be classed as complex as there will be variations of categories on sites, therefore the modification offers the ability to have more options when tendering for Suppliers.

³ Complex sites were examined in detail as part of the implementation of the Target Charging Review – see Reference material.



Implementation Date

The Proposer requires a decision on CMP425 in the coming weeks to support strategic commercial decisions⁴, but the practical implementation of the solution into the CUSC is not required until April 2025. Workgroup members suggested that an earlier implementation could be considered by the Authority in case there are other customers who are already in this situation and would therefore benefit from choosing a Supplier before the Proposer.

Additional Stakeholder Engagement

To raise CMP425, the Authority agreed that Nissan Motor Manufacturing (UK) Limited (NMUK) and AESC (UK) were materially affected parties⁵. As it is likely that most parties impacted by this modification are similarly not Schedule 1 CUSC Users, additional efforts have been made by the Proposer and the Code Administrator to proactively engage with Suppliers, large user representatives, trade bodies, customer representatives, other parties identified by the group and were grateful to the Authority for highlighting to their Large User Group to ensure that the consultation stages are as effective as possible.

Workgroup consultation question: Do you consider your organisation to be impacted by this modification?

Draft legal text

The full draft legal text for this change can be found in Annex 4, below is the main change to Section 14.

Supplier BM Unit

14.17.13 A Supplier BM Unit charges will be the sum of its energy, demand locational, Transmission Demand Residual and embedded export liabilities where:

- The Chargeable Demand Locational Capacity will be the average of the Supplier BM Unit's half-hourly metered gross demand during the Triad (and the £/kW tariff). and
- The Chargeable Embedded Export Capacity will be the average of the Supplier BM Unit's half-hourly metered embedded export during the Triad (and the £/kW tariff), and
- The Chargeable Energy Capacity will be the Supplier BM Unit's non half-hourly metered energy consumption over the period 16:00 hrs to 19:00 hrs inclusive every day over the **Financial Year** (and the p/kWh tariff).
- The Transmission Demand Residual charge for Final Demand Sites will be the sum of the number of sites per Charging Band as served by that Supplier BM Unit multiplied by the number of days the sites were served by that Supplier BM Unit and multiplied by the applicable Transmission Demand Residual Tariff £/site/day as determined in 14.15.141. Where a Connection Site has more than one Supplier BM Unit, the charges will be divided annually between the relevant Supplier BM Units in proportion to their annual Consumption, and

⁴ Hence the need for urgency as is this is an imminent issue.

⁵ Defined in the CUSC as "any person or class of persons designated by the Authority as such, in relation to the Charging Methodologies".



 The Transmission Demand Residual charge for Unmetered Supplies will be the sum of the forecast monthly volume of Unmetered Supplies per Charging Band as served by that Supplier BM Unit multiplied by the applicable UMS Tariff (p/kWh) as determined in 14.15.141.

What is the impact of this change?

Proposer's assessment against Code Objectives

Proposer's assessment against CUSC Charging Object	ives
Relevant Objective	Identified impact
(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;	Positive By changing the way demand charges are levied customers will be no worse off by choosing their own Suppliers. This will therefore add to supply competition for
	customers that are TO connected. It may also make it easier for them to get a good supply deal as they can then be specific to the customer type and also smaller, as getting quotes for very large demand sites is, in our experience, quite difficult.
(b) That compliance with the use of system charging	Positive
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)	Positive
and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the	Given the changing nature of the transmission system users, it would
developments in transmission licensees' transmission	appear to be of benefit to the TOs if more
businesses;	demand were to locate on the
	transmission system. Addressing this defect may help with that development in the longer term.
(d) Compliance with the Electricity Regulation and any	Neutral
relevant legally binding decision of the European	
Commission and/or the Agency *; and	
(e) Promoting efficiency in the implementation and	Positive
administration of the system charging methodology.	The charging methodology will be improved by not distorting competition,
	though we appreciate that there may be
	systems changes required by ESO.
**The Electricity Regulation referred to in objective (d) is Re	• , ,
Parliament and of the Council of 5 June 2019 on the interna	· · · · · · · · · · · · · · · · · · ·
effect immediately before IP completion day as read with th 2020/1006.	e modifications set out in the SI
2020/1000.	



When will this change take place?

Implementation date

01 April 2025, or as soon as practical.

Date decision required by

The potentially significant commercial impact on the Proposers means that a decision is needed in the coming weeks.

Implementation approach

The ESO have indicated that an automated billing system process could be implemented for April 2025 and that an implementation date before then would require a manual billing process to be put in place.

Interactions			
□Grid Code □European Network Codes	□BSC □ EBR Article 18 T&Cs ⁶	□STC □Other modifications	□SQSS □Other

Note that the Proposer has confirmed with Elexon that this modification does not impact the BSC. Further, it is not expected that this modification affects any other codes.

The Workgroup discussed if CMP425 has any impacts on the Electricity Balancing Regulation (EBR) and agreed unanimously that this modification has no impacts.

How to respond

Standard Workgroup consultation questions

- Do you believe that the Original Proposal better facilitate the Applicable Objectives?
- 2. Do you support the proposed implementation approach, notably the date?
- 3. Do you have any other comments, including any learnings from similar issues?
- 4. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

Specific Workgroup consultation questions

5. Do you consider your organisation to be impacted by this modification?

The Workgroup is seeking the views of CUSC Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions above.

Please send your response to cusc.team@nationalgrideso.com using the response proforma which can be found on the CMP425 modification page.

In accordance with Governance Rules if you wish to raise a Workgroup Consultation Alternative Request, please fill in the form which you can find at the above link.

⁶ If the modification has an impact on Article 18 T&Cs, it will need to follow the process set out in Article 18 of the Electricity Balancing Regulation (EBR – EU Regulation 2017/2195) – the main aspect of this is that the modification will need to be consulted on for 1 month in the Code Administrator Consultation phase. N.B. This will also satisfy the requirements of the NCER process.



If you wish to submit a confidential response, mark the relevant box on your consultation proforma. Confidential responses will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel, Workgroup, or the industry, and may therefore not influence the debate to the same extent as a non-confidential response.

Acronyms, key terms, and reference material

Acronym / key term	Meaning
BMU	Balancing Mechanism Unit
BSC	Balancing and Settlement Code
CMP	CUSC Modification Proposal
CUSC	Connection and Use of System Code
DNO	Distribution Network Operator
DSR	Demand Side Response
EBR	Electricity Balancing Regulation
EII	Energy Intensive Industries
ESO	Electricity System Operator
EV	Electric Vehicle
FCL	Final Consumption Levies
IDNO	Independent Distribution Network Operator
SQSS	Security and Quality of Supply Standards
STC	System Operator Transmission Owner Code
T&Cs	Terms and Conditions
TCR	Targeted Charging Review
TDR	Transmission Demand Residual
TO	Transmission Operator

Reference material

- The Authority Decision on DCP328 Use of system charges for private networks with competition in supply
- Transmission connected sites residual charging bands
- The Authority direction to ESO in relation to the Significant Code Review under the Targeted Charging Review
- Targeted Charging Review: Decision and Impact Assessment
- CMP335&CMP336: Transmission Demand Residual Billing and consequential changes to CUSC Section 3 and 11 (TCR)' & CMP336 'Transmission Demand Residual - Billing and consequential changes to CUSC Section 14 (TCR)
- CMP343 and CMP340: 'Transmission Demand Residual bandings and allocation for 1
 April 2022 implementation (CMP343)' and 'Consequential changes for CMP343
 (CMP340)'
- CMP363 & CMP364: TNUoS Demand Residual charges for transmission connected sites with a mix of Final and non-Final Demand & Definition changes for CMP363
- CMP388: Transmission Demand Residual (TDR) Minor Clarifications
- CMP389: Transmission Demand Residual (TDR) band boundaries updates



ESO

Annexes

Annex	Information
Annex 1	Proposal forms
Annex 2	Urgency letters
Annex 3	Terms of reference
Annex 4	Draft Legal Text