Workgroup Consultation

CMP430: Adjustments to TNUoS Charging from 2025 to support the Market Wide Half Hourly Settlement (MHHS) Programme

Overview: This Modification looks to amend CUSC Section 14 to rectify defects relating to demand locational Transmission Network Use of System (TNUoS) charging that will become apparent during the Migration Phase of the Market Wide Half Hourly Settlement (MHHS) Programme, taking place between April 2025 and October 2026.

Modification process & timetable

1. **Proposal Form**
   23 February 2024
2. **Workgroup Consultation**
   17 April 2024 - 24 April 2024
3. **Workgroup Report**
   07 June 2024
4. **Code Administrator Consultation**
   10 June 2024 - 14 June 2024
5. **Draft Modification Report**
   28 June 2024
6. **Final Modification Report**
   28 June 2024
7. **Implementation**
   01 April 2025

Have 5 minutes? Read our Executive summary

Have 45 minutes? Read the full Workgroup Consultation

Have 120 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(s) to the issue raised.

This modification is expected to have a: High impact Suppliers, Embedded Generators, Transmission connected Demand, ESO

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:** Neil Dewar Neil.dewar@nationalgrideso.com 07749 576 710	**Code Administrator Chair**: Deborah Spencer deborah.spencer@nationalgrideso.com 07752 466421
How do I respond?	Send your response proforma to cusc.team@nationalgrideso.com **by 5pm on 24 April 2024.**	

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Executive summary

This modification looks to amend Connection and Use of System Code (CUSC) Section 14 to rectify defects relating to demand locational Transmission Network Use of System (TNUoS) charging that will become apparent during the migration phase of the Market Wide Half Hourly Settlement (MHHS) Programme, taking place between April 2025 and October 2026.

What is the issue?

At the completion of the MHHS Programme all Meter Point Administrator Numbers (MPANs) will have moved from legacy arrangements and will be settled on a 30-minute basis, regardless of how a site is metered.

Double charging can occur when the settlement characteristics of a site cause it to move between the different TNUoS demand locational methodologies at certain points in the Charging Year. Despite being settled Half Hourly (HH), the CUSC states that Measurement Classes F and G are treated as Non-Half Hourly (NHH) for TNUoS charging purposes.

Measurement Class as a data item will not exist in its current format in the new MHHS Target Operating Model (TOM) and the revised Consumption Component Class (CCC) will not replicate Measurement Class attributes. Therefore the information in the current P0210[1] (TUoS File HH /NHH Split) cannot be maintained in the same way. Under the MHHS design, the method of populating Measurement Class into the P0210 is being amended to reflect the new MHHS arrangements.

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

Proposer's solution: ESO propose to amend CUSC Section 14 to maintain the current charging methodologies and segment customers between these as closely as possible to the current arrangements. The proposal will segment demand for migrated MPANs by the new MHHS data items that will then be used to populate the P0210 report as a result of approval of MHHS Programme Change Request (CR) 32[2].

Implementation date: 01 April 2025 to ensure that the change is implemented prior to the start of MHHS Migration to ensure that data for both migrated and non-migrated MPANS are included in the P0210.

What is the impact if this change is made?

There will be an impact on Charging Arrangements. There are three different elements to the defect. Without any action:

a) Demand data cannot be segmented in a way that maintains the same application of TNUoS charging for sites once they have been migrated to the new MHHS arrangements.

[1] https://www.elexon.co.uk/documents/bsc-codes/business-definition-documents/sva-data-catalogue-volume-1-2/

[2]https://www.mhhsprogramme.co.uk/api/documentlibrary/Change%20IAs/MHHS-DEL1615%20CR032%20-%20Change%20to%20Interface%20MHHS-IF-165%20P0210%20TUoS%20Reporting%20v2.3[2][97].docx

b) The risk of double charging MPANs increases during MHHS migration (April-25 to October-26) as sites move from legacy arrangements to the new MHHS arrangements.
c) Some definitions or terminology within the CUSC may be inconsistent with any solution introduced under this modification and MHHS baselined design.

As a result, CUSC changes need to be considered to try to limit the potential impact from Charging Year 2025.

Interactions

CMP431[3] has been raised at the same time as CMP430 and there is a co-dependency on both Modifications being approved at the same time. CMP431 introduces new Terms and Definitions in CUSC that are used to facilitate changes within Section14 for CMP430.

These modifications interact with the Balancing and Settlement Code (BSC) in both the existing legal text and revised legal text being prepared as part of the MHHS Programme. Under MHHS Programme governance, legal text is being drafted to give effect to the MHHS baselined design. This includes BSC text drafting which will be baselined by MHHS Milestone M6 (23 August 2024) and will be part of a suite of Authority-led Significant Code Review (SCR) Modifications delivered by MHHS Milestone M8 (07 March 2025).

Specifically, CMP430 and CMP431 have an interaction with BSC Annex X-1 General Glossary[4], Annex X-2 Technical Glossary[5] and Annex S-3 Supplier Volume Allocation Rules for MHHS Metering Systems[6]. All links for these documents show the latest BSC draft legal text.

What is the issue?

Background

Within the CUSC there are two mechanisms for demand locational TNUoS Charging. NHH transmission charges are based on the total volume consumed between 4pm and 7pm over the course of the year, while HH transmission charges are based on the consumer's average demand during the three 'Triad' periods between November and February. The demand locational element of TNUoS is expected to be £112m for Charging Year 24/25.[7]

Modification Proposal CMP266 was approved by Ofgem on 20 December 2016. This Modification afforded protection from the risk of double charging for sites that were in Measurement Classes F and G. There was an expected end date on this proposal of 1st April 2020 under the expectation that a decision would have been made to introduce HH Settlement for Profile Classes 1-4, removing the issue of TNUoS Charging for Elective

[3] https://www.nationalgrideso.com/industry-information/codes/cusc/modifications/cmp431adjustments-tnuos-charging-2025-support-market-half-hourly-settlement-mhhs-programme-non-charging
[4] https://www.mhhsprogramme.co.uk/api/documentlibrary/Background%20Programme%20Context/MHHS-DEL2035-Section_X-1_v115.4_MHHS_BSC_PAF_Merged_Redlined.pdf
[5] https://www.mhhsprogramme.co.uk/api/documentlibrary/Background%20Programme%20Context/MHHS-DEL2036-Section_X-2_MHHS_v54.7.pdf
[6] https://www.mhhsprogramme.co.uk/api/documentlibrary/Background%20Programme%20Context/MHHS-DEL1348-Section_S-3_v0.9.pdf
[7] https://www.nationalgrideso.com/document/301731/download (T22 Row 25)

HH Settled meters. In 2019, Ofgem approved CMP318, further extending the protection to 31 March 2023, with an anticipation that MHHS Programme would remove the barriers. This was further extended as a result of CMP401 being approved in 2023, now linking the protection of MPANs in Measurement Classes F and G, to a MHHS Programme MHHS Milestone (M15 – End of Migration Period).

MHHS Programme Timeline

In April 2021, Ofgem published their MHHS Decision and Full Business Case[8] with associated transition timetable. This however, was subject to a Re-Plan within the fully mobilised MHHS Programme which resulted in a new timetable approved by Ofgem in June 2023[9]. The Programme is due to be completed by December 2026.

The MHHS Programme is split into different Milestones with the Supplier Migration of MPANs due to take place between April 2025 and October 2026. During this period, Suppliers will move approximately 33m MPANs from legacy systems to a new MHHS TOM.

MHHS Design interactions with the CUSC

The ESO uses demand data from central settlement processes to calculate and charge demand locational TNUoS. Some of the data reported is based on Measurement Class.

In 2021, as part of Ofgem's MHHS Decision and Full Business Case[8], Measurement Classes were removed from the future MHHS design specification and were to be replaced by revised CCC identifiers. (Paragraph 3.10 – p25)

- Between April and June 2023, ESO Revenue and IT colleagues worked with the Elexon design team to develop the specification for the replacement Measurement Class with data items that would make up the revised CCC.

- By the end of this period, it was established that there would not be an exact replication of data items and as a result sites cannot be segmented in the current way for TNUoS charging and the risk of double charging (a site being charged under two different methodologies within one Charging Year) during the Migration phase remains.

- This was escalated both internally and externally for the 2nd half of the year, and guidance was sought from Ofgem on the best governance route for any modifications. This was provided in January 2024 and a decision was taken to de-couple the CUSC legal text changes from the MHHS Programme

What are the resulting Defects in CUSC

At the completion of the MHHS Programme all MPANs will have moved from legacy arrangements and will be settled on a 30-minute basis, regardless of how a site is metered.

[8]https://www.ofgem.gov.uk/sites/default/files/docs/2021/04/mhhs_full_business_case_final_version_for_publication_20.04.01.pdf

[9] https://www.ofgem.gov.uk/publications/decision-market-wide-half-hourly-settlement-change-request-cr022-mhhs-programme-replan

The CUSC sets out different charging methodologies for Demand Locational charges:

- Chargeable Demand Locational Capacity ('Triad'):
    - the average of the Supplier Balancing Mechanism (BM) Unit's **HH** metered gross demand during the Triad (£/kW)
- Chargeable Energy Capacity ('4pm-7pm peak'):
    - the Supplier BM Unit's **NHH** metered energy consumption over the period 16:00 hrs to 19:00 hrs inclusive every day over the Financial Year (p/kWh)
- Chargeable Embedded Export Capacity:
    - the average of the Supplier BM Unit's **HH** metered embedded export during the Triad

The CUSC does not define segmentation between HH and NHH using Measurement Class. However, Measurement Classes are used to describe data in different fields provided in the TuoS Report, or P0210. Measurement Classes are only referred to in CUSC (F and G) to describe special arrangements that are in place up to MHHS Milestone 15 (05 October 2026) to reduce the risk of a site being charged under both Triad and 4pm-7pm peak methodologies within the same Charging Year ('double charging').

Double charging can occur when the settlement characteristics of a site cause it to move between the different demand locational methodologies at certain points in the Charging Year. Despite being settled Half Hourly, the CUSC states that Measurement Classes F and G are treated as NHH.

Measurement Class as a data item will not exist in its current format in the new MHHS TOM and the CCC replacement is not identical and therefore cannot replicate the information in the current P0210 (TUoS File HH/NHH Split).

Why change?

Impact on Charging Arrangements

There are three different elements to the defect. Without any action:

a. Demand data cannot be segmented in a way that maintains the same application of TNUoS charging for all sites once they have been migrated to the new MHHS arrangements.

b. The risk of double charging MPANs increases during MHHS Migration (April-25 to October-26) as sites move from legacy arrangements to the new MHHS arrangements.

c. Some definitions or terminology within the CUSC may be inconsistent with any solution introduced under this Modification and MHHS baselined design.

As a result, CUSC changes need to be considered to try to limit the potential impact from Charging Year 2025.

What is the solution?

Proposer's solution

ESO propose to amend CUSC Section 14 to maintain the current charging methodologies and segment customers by the new MHHS data items that make up the

new MHHS P0210 report as a result of approval of Change Request (CR) 32[10] in the MHHS Programme.

The proposed solution would mean that sites would be segmented between the two methodologies for Charging purposes, using the new MHHS Design Data items – i.e., Domestic and Connection Type Indicators, once they have been migrated. Connection Type Indicator is defined under Industry Standing Data (ISD): MHHS Entities Data Items[11] as ISD Entity ID M2.

The proposal is to align the CUSC to the relevant BSC Sections and definitions to state that:

- Pre MHHS migration, a site will be charged under the existing arrangements; and
- Post MHHS migration, a site will be charged based on logic derived from the Connection Type Indicator and Domestic Premises Indicator

The below table sets out the detail of the proposed arrangements:

Domestic/Non Dom	Connection Type Indicator	Possible Charging Arrangements (Post Migration outcome)	Current Arrangements (Measurement Class and Charging)
Domestic	All	4pm-7pm	A 4pm-7pm F 4pm-7pm C Triad
Non-Domestic	WC (Whole Current)	4pm-7pm	G 4pm-7pm A 4pm-7pm
	L (LV with Current Transformer)	Triad	C Triad E Triad A 4pm-7pm
	H (HV with Current Transformer)	Triad	C Triad E Triad A 4pm-7pm
	E (EHV with Current Transformer)	Triad	C Triad E Triad A 4pm-7pm
	U (Unmetered)	Triad	D (all UMS will be moved from MC B pre-migration) Triad

Yellow highlight indicates sites that would change from current charging arrangements.

Following discussion within Workgroup and input from Elexon, an updated and expanded table has been produced (see Annex 5).

This proposal maintains the current segmentation of MPANs between the different demand locational methodologies as close to existing arrangements as possible, with MHHS data items available. However, some MPANs would face a change in charging methodology as the Measurement Class mapping cannot replicate the current segmentation exactly. Risk scenarios are highlighted in yellow in the above table.

In addition, some customers could be exposed to the risk of double charging once they migrate, if they are subject to a change in charging methodology. The following list expands on the scenarios above:

a. High demand or large Domestic sites that are currently Measurement Class C are charged under Triad arrangements and can access embedded export benefits. It is proposed all Domestic sites would be charged under the 4pm-7pm methodology, which would apply any embedded export benefit in a different way.

[10]https://www.mhhsprogramme.co.uk/api/documentlibrary/Change%20IAs/MHHS-DEL1615%20CR032%20-%20Change%20to%20Interface%20MHHS-IF-165%20P0210%20TUoS%20Reporting%20v2.3[2][97].docx
[11]https://www.mhhsprogramme.co.uk/api/documentlibrary/Design%20Documents/MHHSP_EDI021_ISD_Entities%20v5.5.pdf

b. Microbusiness Current Transformer (CT) metered sites that have opted out of the provision of HH data under Supply Licence SLC47 will currently have a NHH Measurement Class (MC A) and would be charged under the 4pm-7pm methodology. Under this proposal, these would be charged under Triad arrangements with all CT metered sites.
c. Other non-Domestic CT metered sites may be registered as Measurement Class A. However, the recent approval of P432 'Half Hourly Settlement for CT Advanced Metering Systems'[12] will mean that these sites will move to Measurement Class C or E prior to MHHS Migration start. These sites would therefore not experience a change in Charging arrangement as a result of this CUSC proposed solution. Following discussion during the Workgroup, it was established that the interaction with P432 was captured incorrectly in the proposal form as above. This is expanded on further in the Workgroup Considerations section under 'Number of Sites Impacted'.
d. Reverse migration is possible between Milestone 11 (04 April 2025) and Milestone 14 (16 March 2026) where a migrated site switches from a MHHS Supplier to a non-Qualified MHHS supplier. In this scenario, a site will be registered with the previous Measurement Class held.

ESO does not have the data at the level of granularity required to report how many MPANs would be subject to the risk scenarios. However, the number of scenarios identified suggests the impact could be low. ESO would like to understand if there is a way to verify this with data provided by Suppliers.

This solution is preferrable to others considered in relation to IT impacts and costs required to support this solution. It is anticipated that only the logic in MHHS programme CR32 to populate the P0210 file would be required.

In addition, this solution poses the least risk of impacting MHHS delivery timescales and has been discussed and agreed with Elexon, Helix along with MHHS Programme.

Whilst the solution does not remove the risk of double charging, it reduces it significantly from the baseline and the risk is maintained at a low level. This is due to using physical metering characteristics of a site to segment demand rather than Measurement Class which, whilst considering metering type, is also subject to whether demand for a site is above or below 100kW.

ESO are proposing that the solution is not timebound in the CUSC legal text and so would be implemented on an enduring basis. The TNUoS Task Force[13], under Charging Futures, is considering potential reform of charging of locational TNUoS to demand users and so may make recommendations for CUSC Modifications to be raised to be applicable to Charging years beyond 2025.

This proposal would address defects (a) and (b) highlighted in the section above (page 6) but is co-dependent on the non-Charging Modification (CMP431) which will address defect (c).

[12] https://www.elexon.co.uk/mod-proposal/p432/
[13] https://www.chargingfutures.com/task-forces/task-forces/transmission-network-use-of-systems-charges-task-force/resources/ See Meeting 12 documentation

Workgroup considerations

The Workgroup convened 7 times to discuss the perceived issue, detail the scope of the proposed defect, devise potential solutions, and assess the proposal in terms of the Applicable Code Objectives.

Consideration of the proposer's solution

The Proposer clarified the scope of CMP430 and CMP431 (as a co-dependant Modification Proposal) explaining that there are three different elements to the defect under the two modifications:

a. Demand data cannot be segmented in a way that maintains the same application of TNUoS charging for all sites once they have been migrated to the new MHHS arrangements.

b. The risk of double charging MPANS increases during MHHS Migrations (April -25 to October-26) as sites move from legacy arrangements to the new MHHS arrangements.

c. Some definitions or terminology within the CUSC may be inconsistent with any solution introduced under this Modification and MHHS baselined design.

The Proposer clarified that CMP430 (Charging modification) is seeking to address defects (a) and (b) but is co-dependent on the non-charging modification, CMP431, which will address defect (c). Similarly, CMP431 is co-dependent on CMP430.

The Proposer also advised that the ESO is not expecting there to be any changes to the CUSC through the suite of Authority-led Significant Code Review (SCR) Modifications that are linked to MHHS Programme Milestones M6 (Code Changes Baselined) and M8 (Code Changes Delivered). Noting that changes to the settlement timetable following completion of MHHS Migration (end of 2026/early 2027) could allow for changes to the CUSC, and that the current plans are for this to be managed under a separate Modification. The ESO has captured this on their pipeline of future change.

Cross Code Impacts

The Workgroup discussed the cross-code impacts that could affect this modification, and the following were highlighted:

- Code drafting being conducted under the MHHS Programme governance to ensure that the baselined MHHS TOM is reflected in the industry codes.
  This includes BSC text drafting which will be baselined by MHHS Milestone M6 (23 August 2024) and will be part of a suite of Authority-led (SCR) Modifications delivered by MHHS Milestone M8 (07 March 2025). Details on the MHHS Programme Plan[14] and other MHHS Milestones can be found on the MHHS website.
  The drafting proposes to introduce definitions for the following terms into the BSC:
    - Connection Type Indicator
    - Domestic Premises Indicator
    - Measurement Class for non-MHHS Metering Systems (uses existing definition of Measurement Class)
    - Measurement Class for MHHS Metering Systems (this Measurement Class is only required for the purpose of creating the TUoS Report and is derived using the Connection Type Indicator and Domestic Premises Indicator)

[14] https://www.mhhsprogramme.co.uk/planning/programme-plan-complementary-documents

The timetable for progression of this Modification and CMP431 is set out in the Urgency decision, granted by Ofgem. This requires an Authority decision on CMP430 and CMP431 well in advance of the scheduled decision on the MHHS SCR Modifications.

- BSC P432 "HH Settlement for CT Advanced Metering Systems"[15]
    - Approved for implementation on 15 April 2024
    - Existing NHH CT Advanced Meters are required to move using the Change of Measurement Class (CoMC) process to settle HH by MHHS Milestone M14 (16 March 2026)
- BSC P434 "HH Settlement for Unmetered Supplies (UMS) Metering Systems"[16]
    - Implemented on 14 December 2022
    - All existing NHH UMS Metering Systems are required to undergo a Change of Measurement Class (CoMC) to complete before the MHHS migration to the Target Operating Model by MHHS Milestone 11(04 April 2025).
- Distribution Connection Use of System Agreement (DCUSA) DCP414 "Transitional Protection for NHH CT Customer affected by regulatory change"[17]
    - Approved for implementation on 01 April 2024
    - Provides transitional protection for NHH CT customers moving to HH settlement and prevents penal excess capacity charges being applied to customers in any instance that the Maximum Import Capacity (MIC) is a zero value because there is no site-specific connection agreement in place between users and Distribution Network Operators (DNOs).

Number of Sites Impacted

The Proposer advised that some groups of sites have been identified as being impacted through the proposed solution, as they will be subject to different charging arrangements than they would have been compared to the baseline and could be at risk of double charging. The following groups of sites have been identified:

- Sites that are settled as Measurement Class C pre-MHHS migration that will have Domestic Premises Indicator = True post-MHHS migration
- Sites that are settled as Measurement Class A pre-MHHS migration that will have a Connection Type Indicator = L or H (meaning they are CT Metered) and a Domestic Premises Indicator = False post -MHHS migration

A Workgroup member advised that as the Domestic Premises Indicator is relatively new (introduced around 2021 for Faster Switching) and wasn't really used until very recently, the data isn't available. Domestic Measurement Class C sites will have always been charged under Triad arrangements and it feels like the numbers are low, but there is nothing to base this on.

[15] https://www.elexon.co.uk/mod-proposal/p432/
[16] https://www.elexon.co.uk/mod-proposal/p434/
[17] https://www.dcusa.co.uk/change/transitional-protection-for-nhh-ct-customers-affected-by-regulatory-change/

A Workgroup member questioned if there are Line Loss Factors (LLFs) dedicated to Domestic sites on Measurement Class C. Another Workgroup member advised that the LLF would not provide this information.

Through discussion of the data available from other modifications a member advised that P432 is only Advanced Meters, stating that the meter has to be a remotely connecting meter, or have the ability to obtain the data from the meter remotely. The Workgroup member stated that DCP414 can cover the Advanced meters, and non-Advanced meters that will be facilitated through the MHHS migration. The Proposer agreed and advised that P432 suggested around 50,000 sites (data taken in 2018).

The Proposer advised DCUSA had provided the non-confidential responses for DCP 414, and all but two DNO responded and without those two DNOs it was approximately 51,000 sites.

Data from P432 and DCP414

P432 – CT Advanced Meters moving from NHH to HH

P432 suggested around 50,000 impacted customers, this was derived from data in 2018.

Under P432, sites will move from MC A to MC F, C or E before Milestone 14.

The direct impact from the CMP430/431 proposed solution, would be sites moving from MC A to being Non-Domestic and CT Metered, post MHHS migration. This is a sub-set of sites within scope of P432.

In discussing Modification P432, the Workgroup identified an error in how the implementation of P432, and its interaction with this Modification, had been described in the Modification Proposal form. The Proposal form notes that P432 requires all CT Advanced Meters to be settled Half Hourly before MHHS Migration begins at Milestone 11 (04 April 2025). This is incorrect, and P432 will mean that CT Advanced Meters will be settled Half Hourly before MHHS Milestone 14 (16 March 2026), a later deadline. These timings mean that not all CT Advanced Meters will be moved to Half Hourly settlement and therefore possible Triad charging arrangements prior to the potential implementation of this Modification.

DCP414 - Transitional Protection for NHH CT Customers

The number of customers identified as impacted by this change is circa 60,000.

DCP414 puts in place protection for CT Metered sites that move from NHH to HH arrangements as a result of both P432 and MHHS Migration. The scope of sites impacted is wider for DCP414 than P432.

The direct impact from the CMP430/431 proposed solution would be to sites moving from MC A to being Non-Domestic and CT Metered post MHHS migration. This is a sub-set of sites reported in DCP414 data.

*Scope of CMP430/431 solution is from start of Charging Year April 2025

A Workgroup member suggested the only way to get the exact numbers is to wait for the outcome for the MHHS migration data cleanse. Another member clarified the agreed M10 milestone is 7th March 2025.

A Workgroup member questioned if similar data has been provided to Ofgem by a Request For Information (RFI). An RFI was issued by Electralink under DCP414 and there is a possibility that some confidential responses were shared with Electralink and Ofgem. Other possibilities for accessing registration data which would potentially give an

indication of the number of CT sites that are currently settled as Measurement Class A are being considered by Ofgem and the Workgroup.

Risk of Double Charging

The Proposer talked about drawing some examples of the double charging risks for the next Workgroup meeting and a Workgroup member stated that those would be helpful for the Workgroup and for the Workgroup Consultation as it would offer information to the industry (see Annex 5).

Under the MHHS Programme, Suppliers will provide Migration plans indicating when MPANs will move from legacy settlement to the MHHS arrangements. Suppliers have the opportunity to determine when sites are migrated, which could influence whether a site is subject to double charging of TNUoS. Sites in scenarios at risk of double charging have been identified through the proposed solution and this risk could be mitigated or reduced through Supplier timing of migration of affected MPANs.

Consideration of Alternative Solutions

Alternative solutions were shared by the Proposer with members that had previously been considered for this Modification. Members were asked for their views on whether any of them should be considered as a solution.

Description	Rationale	Workgroup Discussion
Do Nothing	• All sites would eventually move to the triad methodology across migration which is not desirable for domestic consumers. • Instances of double charging would significantly increase as all NHH settled portfolio would move to Half Hourly settled during migration.	• A member advised that this solution did not sit well with the Standard Variable Tariff (SVT) Price Cap, another Workgroup member stated that it could create double charging for mass market (domestic and non-domestic) and introduces a lot of uncertainty. Members confirmed this was not a viable solution.
Move all sites to the 4-7pm peak methodology from the start of Migration	• Those currently charged on Triad methodology would incur a greater proportion of the cost than they do now. • The opportunity of managing demand around Triads would be removed and complexity would be introduced to the solution if certain types of site were exempt and remained on Triad arrangements.	• A Workgroup member advised that the solution “Move all sites to the 4-7pm peak methodology from the start of Migration” should not be too complicated to implement from a system perspective and questioned if there are any insight into the winter 2023 triad season out turn. An action was taken to investigate

Description	Rationale	Workgroup Discussion
	• Risk of double charging would be removed as sites would not move between different methodologies	this further; this is ongoing. A Workgroup member shared concerns with the "Move all sites to the 4-7pm peak methodology from the start of Migration" solution regarding UMS sites moving to triad charging arrangements this year and then having to move back to 4-7pm from April 2025. They advised that in the absence of any proportionality or an idea of the impacts, if this solution were to be implemented, they would consider raising an urgent BSC modification to extend the P434 mandate from M11 to M14.
Reintroduce Measurement Class as a data item to MHHS TOM	• Significant additional cost and delay would be introduced to MHHS Programme (at estimated £90m p/a cost to industry). • In direct conflict with design principles for the MHHS TOM and Ofgem design decision. • Rationale for removal of Measurement Class is still valid, and reintroduction would be for charging purposes only. • MHHS Change Request (CR) would be required which would be unlikely to be approved.	• A Workgroup member commented on the solution to "Reintroduce Measurement Class as a data item to MHHS TOM" advising this would increase the disconnect between the DCUSA and the CUSC and this connection is needed for residual charging purposes.
Elexon introduce consumption monitoring process to recreate segmentation by existing Measurement	• Significant additional cost and delay would be introduced to MHHS Programme (at estimated £90m p/a cost to industry). • Creation of new process to monitor Half Hourly data for 30 million sites would be significant undertaking for a limited duration. • MHHS Change Request and possible BSC Modification would	• The Elexon representative advised that this solution would significantly impact the MHHS go live date.

Description	Rationale	Workgroup Discussion
Class descriptions	be required. Progression of the Modification would be dependent on approval of the CR which would be unlikely.	
Obligate Distribution Network Operators (DNOs) to provide data rather than Elexon	• Any data provided by DNOs would require significant IT solution to manipulate to transform it to an appropriate level for TNUoS charging. Meter-level data would require distribution losses and group correction factor to be applied. • MHHS Change Request and possible BSC Modification would be required. Progression of the Modification would be dependent on approval of the CR which would be unlikely. • Creation of a new process would be a significant undertaking for a limited duration.	• A Workgroup member commented that they did not think the DNOs receive all the meter level data and advised this solution would add extra complexities in that data being required and shared.
Remove NHH References from CUSC from April 2025	• At the start of Migration, all sites move would be subject to the triad methodology which would not be desirable for domestic consumers. • Risk of double charging would be removed as sites would not move between different methodologies.	• A Workgroup member commented that the feedback from Ofgem in recent industry forums was that network charges should not send operational signals.

Consideration of other options

During Workgroup 3, a member advised they were considering an Alternative Request that instead of maintaining the status quo, defers everything to the residual by removing the demand locational element of TNUoS completely. The Workgroup member confirmed that they will have decided by Workgroup 4, whether to raise the Alternative Request or not, as they would like to consider any further information from the Charging Futures Forum event on 21 March 2024.

A Workgroup member raised an Alternative Request in Workgroup 4, to temporarily simplify the current structure of TNUoS tariff charging to reflect the loss of Measurement Class. The proposed alternative solution seeks to recover any revenue from the demand locational tariffs (4-7pm charge or Triad charge) via the Transmission Demand Residual.

Currently (2024/25) relatively low sums are collected from the demand locational tariffs, c. £0.1bn out of c. £3.1bn total revenue recovered from Demand customers via TNUoS. Collecting all revenue instead via the Transmission Demand Residual would not materially alter customer bills while avoiding the need for industry parties to undertake IT system development at short notice. The proposal is to be a temporary fix, until reformed locational charging is introduced, following either the conclusion of the TNUoS taskforce, REMA, or any other relevant stream of work. It was noted that the solution is not expected to have any impacts on Transmission-connected generators or Embedded Generators. ESO would continue to run the T&T Model, calculating the relevant locational tariffs. The relevant locational tariffs for demand users only would then be set to zero post model run.

The Authority representative shared concerns regarding the urgent timeline of CMP430 and CMP431, advising that the Workgroup should consider if there is adequate time to consider a change to the methodology of this scale, and the need to consult adequately, to actually get a fair representation of views. They also highlighted the risk of a send back, and the risk of the Authority having to do their own impact assessment, which would mean that this modification is not within the timeline that is needed.

A Workgroup member shared the concerns and advised that it felt like a much more significant change that was signalled in the original defect, suggesting that it might create unintended consequences.

The ESO SME commented that there would be an impact on the standing charge of about £1.40 for a typical domestic consumer. The impact would vary depending on the level of the locational tariff, and where that tariff is currently positive, advising that in the South, there are most positive tariffs that would differ to the impact in the North. Therefore, there will be an increase in costs in the North and for Scottish consumers. The ESO SME also stated that the Triad still may help the ESO control room to manage peak demands, highlighting the need to be mindful of unintended consequences and asking if this should be taken to Task Force and considered alongside Task Force changes.

A Workgroup member asked about the data requirements, to which the Alternative Request Proposer advised that it should not be a lot of changes to the data required, if any at all. Any impact to the MHHS Programme design would also need to be fully understood. A Workgroup member stated that they believed supplier systems would still need to map Connection Type Indicator to Measurement Class under the potential Alternative. The Alternative Request Proposer did not believe that this would be the case.

A vote was held on 5th of April 2024 (Workgroup 5). The majority of Workgroup members and the Chair voted against the proposed Alternative Request with the Chair noting the possibility of it being a modification in its own right. Three of the four Workgroup members voting against the proposed Alternative Request, felt the suggestion was beyond the scope of what is intended to be fixed by the Original defect and solution.

One Workgroup member abstained from the vote, explaining it was not yet known how many sites could be affected by the original solution and therefore was unable to conduct an informed vote.

Draft legal text

Legal text will not be available to issue with the Workgroup Consultation, it will however, be issued along with the Code Administration Consultation.

What is the impact of this change?

Proposer's assessment against CUSC Charging Objectives	
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** This CUSC change, aligns with the MHHS Programme migration of MPANs, facilitating delivery according to the MHHS milestones. This should support Suppliers' migration in an orderly and timely manner. Consequently, it facilitates MHHS Programme consumer benefits such as more dynamic tariffs and increased competition from Suppliers migrating early in the migration window.
(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);	**Positive** This solution maintains the existing locational demand charging methodologies but introduces segmentation between the methodologies based on metering characteristics, rather than a demand threshold (100kW). The solution reduces the risk of double charging compared to the baseline and provides clarity to Suppliers in order for them to plan migration for specific at risk MPANs to avoid double charging.
(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;	**Neutral** No impact
(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and	**Neutral** No impact

(e) Promoting efficiency in the implementation and administration of the system charging methodology.	**Positive** This solution addresses a defect in the CUSC, aligning CUSC and BSC definitions, providing transparency on how sites can be segmented using new, enduring MHHS Data Items. The solution is proposed to be enduring rather than following the same approach as the series of previous Modifications to address double charging issues with reference to Measurement Class which had end dates.
**The Electricity Regulation referred to in objective (d) is Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast) as it has effect immediately before IP completion day as read with the modifications set out in the SI 2020/1006.	

Proposer's assessment of the impact of the modification on the stakeholder / consumer benefit categories	
Stakeholder / consumer benefit categories	**Identified impact**
Improved safety and reliability of the system	Neutral
Lower bills than would otherwise be the case	Neutral
Benefits for society as a whole	Neutral
Reduced environmental damage	Neutral
Improved quality of service	Neutral

Standard Workgroup consultation question: Do you believe that CMP430 Original proposal better facilitates the Applicable Objectives?

When will this change take place?

Implementation date
01 April 2025 to ensure that the change is implemented prior to the start of MHHS Migration. Both this and CMP431 Modification Proposals need to be implemented on the same date due to co-dependencies.

Date decision required by
Decision required by 30 September 2024 to ensure compliance with CMP292 and not impact tariff setting and MHHS Programme.

Implementation approach
Implement on 01 April 2025 at the start of the 2025/26 Charging Year.

Standard Workgroup consultation question: Do you support the implementation approach?

Interactions

☐Grid Code	☒BSC	☐STC	☐SQSS
☐European Network Codes	☐ EBR Article 18 T&Cs[18]	☐Other modifications	☐Other

Interactions with BSC legal text which is being drafted as part of the MHHS Programme process have been highlighted in earlier sections of this document. Although there are interactions, this modification will need to ensure the proposed CUSC legal text is operational without being contingent on draft BSC legal text. ESO and Elexon are continuing to work closely together to ensure consistency across industry codes.

How to respond

Standard Workgroup consultation questions

1. Do you believe that the Original Proposal and/or any potential alternatives better facilitate the Applicable Objectives?
2. Do you support the proposed implementation approach?
3. Do you have any other comments?
4. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?
5. Do you agree with the Workgroup's assessment that CMP430 does not impact the European Electricity Balancing Regulation (EBR) Article 18 terms and conditions held with the CUSC?
6. Do you have any comments on the impact of CMP430 on the EBR Objectives?

Specific Workgroup consultation questions

7. Does the Original Proposal have an impact on your business and if so, to what extent? e.g., Consumers treated differently in new arrangements?
8. Does the Original Proposal have an impact on the systems and processes used by your organisation, and if so, to what extent? e.g., pricing, billing, settlement
9. Do you agree with the scenarios identified that could be subject to different charging arrangements as a result of CMP430?
10. For suppliers only: How many sites does your organisation supply in the following scenario:
    a) Sites that are settled as Measurement Class C pre-MHHS migration that will have Domestic Premises Indicator = True post-MHHS migration
    b) Sites that are settled as Measurement Class A pre-MHHS migration that will have a Connection Type Indicator = L or H (meaning they are CT Metered) and a Domestic Premises Indicator = False post -MHHS migration.

[18] 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.

11. Do you agree that the Original Proposal should be considered as enduring, or do you believe should it be time limited – e.g., Linked to Market Wide Half Hourly Settlement Milestones?
12. Do you agree that the Original Proposal will not impact the delivery of the MHHS Programme delivery Milestones?

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 pro-forma which can be found on the CMP430 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.

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
BSC	Balancing and Settlement Code
BM	Balancing Mechanism
CCC	Consumption Component Class
CMP	CUSC Modification Proposal
CoMC	Change of Measurement Class
CR	Change Request
CT	Current Transformer
CUSC	Connection and Use of System Code
DCUSA	Distribution Connection Use of System Agreement
DNO	Distribution Network Operators
EBR	Electricity Balancing Regulation
HH	Half-Hourly
ISD	Industry Standing Data
LLF	Line Loss Factors
MHHS	Market-wide Half Hourly Settlement
MIC	Maximum Import Capacity
MPANs	Meter Point Administrator Numbers
NHH	Non-Half Hourly
RFI	Request for information
SCR	Significant Code Review
STC	System Operator Transmission Owner Code
SVT	Standard Variable Tariff
SQSS	Security and Quality of Supply Standards
T&Cs	Terms and Conditions
TNUoS	Transmission Network Use of System
TOM	Target Operating Model
UMS	Unmetered Supplies

Reference material

- MHHS Programme Website
- MHHS Re-Plan (MHHS Milestones)

Annexes

Annex	Information
Annex 1	Proposal form
Annex 2	Terms of reference
Annex 3	Urgency letters
Annex 4	Table illustrating charging arrangements pre and post MHHS Migration
Annex 5	Double Charging scenarios
Annex 6	Analysis on different charging arrangements