Workgroup Report

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** — 26 July 2024
4. **Code Administrator Consultation** — 31 July 2024 - 08 August 2024
5. **Draft Modification Report** — 23 August 2024
6. **Final Modification Report** — 23 August 2024
7. **Implementation** — 01 April 2025

Have 15 minutes? Read our Executive summary

Have 90 minutes? Read the full Workgroup Report

Have 180 minutes? Read the full Workgroup Consultation and Annexes.

Status summary: The Workgroup have finalised the Proposer's solution. They are now seeking approval from the Panel that the Workgroup have met their Terms of Reference and can proceed to Code Administrator Consultation.

This modification is expected to have a: High impact Suppliers, Embedded Generators, 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 Keren Kelly keren.kelly1@nationalgrideso.com 07840 715753	**Code Administrator Chair**: Deborah Spencer deborah.spencer@nationalgrideso.com 07752 466421

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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) 032[2].

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

Workgroup conclusions: The Workgroup concluded unanimously that the Original better facilitated the Applicable Objectives than the Baseline.

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] was raised at the same time as CMP430 and there was a co-dependency on both modifications being approved at the same time. CMP431 proposed to introduce new Terms and Definitions in CUSC that would be 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).

Originally, CMP430 and CMP431 had an interaction with the following **draft** BSC documents which are still being developed under MHHS Programme governance: 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. There is no dependency on the draft BSC text as the Workgroup concluded that the solution introduced by CMP430 does not rely on any new definitions being introduced. Consequently, the Proposers have withdrawn their support for CMP431. At time of writing, the Proposal is with industry to establish whether another party wants to adopt CMP431.

[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

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] and £134m for Charging Year 25/26[8].

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 1 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 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[9] 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[10]. 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[9], 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

[7] https://www.nationalgrideso.com/document/301731/download (T22 Row 25)
[8] https://www.nationalgrideso.com/document/317556/download (T29 Row 25)
[9] https://www.ofgem.gov.uk/sites/default/files/docs/2021/04/mhhs_full_business_case_final_version_for_publication_20.04.01.pdf
[10] https://www.ofgem.gov.uk/publications/decision-market-wide-half-hourly-settlement-change-request-cr022-mhhs-programme-replan

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.

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[11] 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[12] 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.

[11] 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
[12] https://www.mhhsprogramme.co.uk/api/documentlibrary/Design%20Documents/MHHSP_EDI021_ISD_Entities%20v5.7.pdf

Following discussion within Workgroup and input from Elexon, an updated and expanded table has been produced showing the charging arrangements that would be effective from the start of charging year 2025 under this proposal. This can be found below and also in **Annex 4**.

Domestic Premises Indicator	Connection Type Indicator	Current Measurement Class (non-MHHS)	Charging Arrangement Pre- MHHS Transition	Charging Arrangements post MHHS Transition
Domestic (T)	W (Whole Current); L (LV with Current Transformer); H (HV with Current Transformer) or E (EHV with Current Transformer)	A	Chargeable Energy Capacity	Chargeable Energy Capacity
		F	Chargeable Energy Capacity	Chargeable Energy Capacity
		C	Chargeable Demand Locational Capacity	Chargeable Energy Capacity
	U (Unmetered)	B *	Chargeable Energy Capacity	Chargeable Demand Locational Capacity
Non-Domestic (F)	W (Whole Current)	G	Chargeable Energy Capacity	Chargeable Energy Capacity
		A	Chargeable Energy Capacity	Chargeable Energy Capacity
	L (LV with Current Transformer)	C	Chargeable Demand Locational Capacity	Chargeable Demand Locational Capacity
		E	Chargeable Demand Locational Capacity	Chargeable Demand Locational Capacity
		A	Chargeable Energy Capacity	Chargeable Demand Locational Capacity
	H (HV with Current Transformer)	C	Chargeable Demand Locational Capacity	Chargeable Demand Locational Capacity
		E	Chargeable Demand Locational Capacity	Chargeable Demand Locational Capacity
		A	Chargeable Energy Capacity	Chargeable Demand Locational Capacity
	E (EHV with Current Transformer)	C	Chargeable Demand Locational Capacity	Chargeable Demand Locational Capacity
		E	Chargeable Demand Locational Capacity	Chargeable Demand Locational Capacity
	U (Unmetered)	D	Chargeable Demand Locational Capacity	Chargeable Demand Locational Capacity

Chargeable Demand Locational Capacity = Triad
Chargeable Energy Capacity = 4pm – 7pm

Yellow highlight shows change in TNUoS charging as a result of CMP430

- All NHH Unmetered (Measurement Class B) will be transferred to Measurement Class D by the start of the migration period. N.B. Measurement Class B is currently charged 4pm-7pm and reason for change is as a result of the implementation of P434. Whilst theoretically possible, the expectation is that there will be no Domestic Unmetered demand.

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. Although these sites lose the embedded export payment under triad arrangements, they will still receive a benefit as the 4pm-7pm methodology is charged on Net consumption, so any export volume would reduce their charge.
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.
   LV/HV CT metered embedded generators which are Measurement Class A would move from being paid for their net profiled export between 4pm and 7pm on the inverse of the NHH tariff, to being paid the Embedded Export tariff based on their gross export over the Triads.
c. Other non-Domestic CT metered sites may be registered as Measurement Class A. 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 may 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. The logic in CR32 is to allow the P0210 to be produced for both existing MPANS and MPANs that have been transitioned to MHHS supports the solution proposed in this Modification.

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, is 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).

Workgroup considerations

The Workgroup convened 17 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.

The Workgroup held their Workgroup Consultation between 17 April 2024 – 24 April 2024 and received 5 responses. The full responses and a summary of the responses can be found in **Annex 7**.

Consideration of the Proposer's solution

The Proposer clarified the scope of CMP430 and CMP431 explaining that there are three different elements to the defect under the two modifications:

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

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.

The Proposer clarified that CMP430 (Charging modification) is seeking to address defects (a) and (b)., CMP431 will address defect (c).

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)

  The timetable for progression of this modification and CMP431 is set out in the Urgency decision, granted by Ofgem, see **Annex 3**. 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 to HH settlement using either the Change of Measurement Class (CoMC) process OR by

[14] https://www.mhhsprogramme.co.uk/planning/programme-plan-complementary-documents
[15] https://www.elexon.co.uk/mod-proposal/p432/

MHHS migration post M11 (04 April 2025) 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. This is because 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:

1. Sites that are settled as Measurement Class C pre-MHHS migration that will have Domestic Premises Indicator = True post-MHHS migration
2. 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

The Proposer highlighted their concerns that no accurate data source had been identified in order to establish the number of sites that would fall into the above categories of impacted sites.

The Workgroup discussed this and agreed to look at different code Modifications over the last few years to identify if similar data had been identified previously. This culminated in the Workgroup focussing on:

- DCP414
- P432

DCP414, P432 and this Proposal all have a different scope and are therefore not directly comparable, although DCP414 and P432 each were able to identify a range of impacted sites.

The Workgroup analysed outputs from industry data provided as part of P432 and DCP414. Based on the information from both Modifications, the Workgroup made an assumption that the maximum range of impacted sites would be between approximately 50,000 and 60,000 for (2) above. For (1) no range could be validated. Further details are provided below on DCP414 and P432 outputs and Workgroup discussions.

[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/

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 Measurement Class A to Measurement Class F, C or E before Milestone 14.

The direct impact from the CMP430/431 proposed solution, would be sites moving from Measurement Class 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) which is a later deadline. These timings mean that not all CT Advanced Meters can be moved to Half Hourly settlement and therefore possible Triad charging arrangements prior to the potential implementation of this modification. In addition, the scope of P432 is limited to advanced meters in accordance with Supplier Licence Condition 12.19, so any CT meters that do not meet the advanced licence condition due to meeting all Reasonable Steps in line with SLC 12.29 will be subject to MHHS migration only.

DCP414 - Transitional Protection for NHH CT Customers

The number of customers identified as impacted by this change is circa 60,000[18].

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 Measurement Class A to being Non-Domestic and CT Metered post MHHS migration. This is a sub-set of sites reported in DCP414 data.

Workgroup Discussion

A Workgroup member suggested the only way to get the exact numbers is to wait for the outcome for the MHHS migration data cleanse.

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 currently across the market because the MHHS data cleanse plan does not aim to complete the data cleanse activity until 02 February 2025. 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.

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

[18] See DCUSA DCP414 Consolidated Consultation 1 Responses which can be found on the following link https://dcusa-cdn-1.s3.eu-west-2.amazonaws.com/wp-content/uploads/2023/01/10135234/DCP-414-Consultation-2-1.zip (Attachment 3, Question 5)

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 and 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 DCP414, and all but two DNO responded and without those two DNOs it was approximately 51,000 sites.

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.

Other Data Considered by the Workgroup

The Workgroup asked the Ofgem representative if any other data was available to them that would assist the CMP430 Workgroup in identifying the numbers of impacted sites. Unfortunately, after investigation, it was determined that there was no information available that would support 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.

At Workgroup 9, whilst conducting a review of the Terms of Reference for CMP430, the Proposer confirmed to the Workgroup that the ESO has explored all options internally and not identified any solutions (including manual workarounds) so double charging cannot unfortunately be eliminated. Where sites are at risk of moving between different charging arrangements, this phenomena can only be managed by Suppliers understanding the impacts to their respective portfolios and by their migration plans.

Further Consideration of Impacts from CMP430 Proposed Solution

Impact as a result of moving between different TNUoS Charging Arrangements

The Workgroup were presented with analysis produced by the ESO Revenue team. The analysis used a series of assumptions to illustrate the extent to which customers/Suppliers could be impacted if they were subject to a change in charging arrangements as a result of CMP430.

The first set of analysis shows an example locational charge for a domestic site if it was subject to Chargeable Demand Location Capacity or Chargeable Energy Capacity in each Zone using 24/25 tariffs.

The second set of analysis shows an example locational charge for a CT Metered site if it was subject to Chargeable Demand Locational Capacity or Chargeable Energy Capacity in each Zone using 24/25 tariffs. Initially this analysis was provided for Profile Class 3 sites, but at the request of the Workgroup was expanded to include Profile Class 3-8. The difference in charge per site was extrapolated up using indicative numbers of sites from DCP414 data to give an indication of overall financial impact.

The Workgroup felt that the analysis was still helpful to provide indicative information on the potential materiality of impacts of CMP430, even though it was derived from a number of assumptions.

The detail of this can be found in **Annex 6.**

Impacts to Industry Systems and Processes

The Workgroup discussed the wider impacts to industry systems and processes. There was no clear view from the Workgroup about the extent to which Supplier processes would be impacted. It was noted that October is typically a significant contract round for Suppliers and changes to charging arrangements could impact pricing assumptions. A specific question was added to the Workgroup consultation.

A Workgroup member suggested that a question should be added to the Code Administrator Consultation to understand more about industry impacts, specifically costs. The Workgroup agreed this would be added.

Consideration of Other Solution Options

Alternative solutions were shared by the Proposer with members that had previously been considered in development of this modification Proposal. 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.

Description	Rationale	Workgroup Discussion
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. • Risk of double charging would be removed as sites would not move between different methodologies	• 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 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.	• 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.

Description	Rationale	Workgroup Discussion
	• MHHS Change Request (CR) would be required which would be unlikely to be approved.	
Elexon introduce consumption monitoring process to recreate segmentation by existing Measurement Class descriptions	• 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 be required. Progression of the modification would be dependent on approval of the CR which would be unlikely.	• The Elexon representative advised that this solution would significantly impact the MHHS go live date.
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 Alternatives

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 Transport and Tariff (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 concluded 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 a detrimental 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.

Details of the Alternative Request and vote can be found in **Annex 10**.

Workgroup Consultation

Summary

The Workgroup held their Workgroup Consultation between 17 April 2024 to 24 April 2024. The consultation asked respondents the six standard Workgroup consultation questions along with six Workgroup specific questions. Within the specific questions, there was an ask to understand the impact on respondent businesses and impacted customers. This was with the intent to further understand the impacted numbers of end consumers direct from Suppliers, without divulging any commercial or confidential information.

The solution detailed in the Workgroup consultation has been described in the Legal Text section below. Whilst this solution option has been superseded by the final proposed solution, the responses provided to the consultation supported the Workgroup's development of this approach and the following should be highlighted as part of the Workgroup discussion:

- As part of the MHHS Programme there is a Data Cleanse exercise, which may provide more clarity on consumers impacted by changes to charging arrangements, due to be completed in 2025.
- One respondent noted that a 3 month minimum lead time would be needed to implement any changes.
- None of the respondents provided any details on the number of impacted customers.
- The Proposer confirmed that the ESO had undertaken an exercise internally but could not find any solutions (including manual workarounds) to either prevent or fully eliminate the risk of double charging as a result of CMP430.
- There are no identified issues directly impacting the MHHS Programme as a result of the proposed solution.
- A respondent and the Workgroup agreed that the solution should be enduring until a more complete solution is derived by TNUoS Taskforce Signals Workstream.

In total, 5 non-confidential responses and 0 confidential responses were received from industry. All respondents supported the implementation approach. All responses to the consultation along with the summary, can be found in **Annex 7**

Workgroup Consultation Response Review

The Proposer shared the Terms of Reference (ToR) linked to the Workgroup Consultation with the intention of prompting discussion on how the responses could

assist the Workgroup of meeting CMP430 ToRs. All answers to the twelve questions were attributed to a ToR where appropriate, and a summary is provided below where the Workgroup considered all comments:

A) Consider EBR implications:

- One respondent agreed with the assessment that CMP430 did not impact the Electricity Balancing Regulations.
- All other respondents made no comment.
- Workgroup noted this would be considered once proposed legal text had been agreed.

B) Consider interaction with the BSC legal text drafting as part of the MHHS Programme:

- No responses – since considered irrelevant as proposed solution does not rely on BSC drafting.

C) Identify the volume of customers who will experience a change in charging arrangements from pre MHHS migration to post MHHS migration, and consider the impact on those customers:

- The Proposer highlighted that there was a lack of reliable number of customers who will experience changes in charging arrangement as the data is currently not available.
- A Workgroup member commented that at the moment there is a data cleansing happening within the MHHS Programme, but actual numbers won't be available until February 2025.
- The Proposer advised that after looking into different ways to get data it is still proving to be very difficult, and the Workgroup Consultation responses did not provide any further information.

D) Consider minimising or eliminating double charging:

- A respondent noted that Double Charging or Under charging would be absorbed by Suppliers.
- The Elexon representative advised that the MHHS Programme and Suppliers have a migration plan on the number of MPANs to migrate at any given time.
- A Workgroup member confirmed that the MHHS Programme has a plan for migration, but Suppliers have to adhere to a timeline agreed with the Programme which has input from parties across industry.
- The Proposer confirmed that the ESO could not find any alternative solutions including manual workarounds, to prevent or eliminate fully the double charging issue, but that double charging was significantly reduced under this Proposal compared to the baseline.

E) Consider the impacts on the Market-wide Half Hourly Settlement (MHHS) Programme:

- A respondent noted that Unmetered Supplies have consumption specific profiles, and that double charging is not relevant.
- The Proposer advised that they agreed with the respondent's comments regarding Unmetered Supplies that they have consumption specific profiles, and that double charging is not relevant.
- A Workgroup member disagreed with the comment, responding that UMS have consumption specific profiles but that it is not half hourly.

- The Workgroup member stated that there is a mandate in P434 for all to be half-hourly, but that doesn't mean that they all will, suggesting that the BSC will have to address those that will not be half-hourly by the P434 deadline.

F) Consider the number of consumers impacted by each element of the defect and respective solution:

- The Proposer agreed with respondent's comments that domestic and non-domestic unmetered customers should not be treated differently and should all be charged on the Triad basis.

G) Consider implementation costs and timescales for all of industry:

- A respondent commented on the timeliness and availability of data for suppliers to price in future, and also the short-term IT developments before Task Force or REMA solutions.
- A member advised that the data would be available to suppliers through ECOES, suppliers would then pick up from there, and that system impacts would be minimal.

H) Consider whether the solution should be enduring or time limited. If time limited, what should this relate to and what would charging arrangements revert to?

- A respondent advised the solution should be enduring and Workgroup members agreed, suggesting the solution should be in place until other solutions come from the wider reforms (Task Force/REMA).
- One Workgroup member noted it would not be preferrable to implement future charging changes during the MHHS Migration window.

Further Considerations by the Workgroup

Following the Workgroup Consultation and subsequent consideration of responses, the Workgroup refined the Proposed solution with the following conclusions:

Identifying the number of Sites impacted

As noted in the section above "Number of Sites Affected," it was determined that up to 50,000 MPANs could be impacted and subject to different charging arrangements. The information on the number of sites impacted as a result of this Proposal uses the best information available to the Workgroup at the time of consideration. Throughout all stages of the modification process, the Workgroup have engaged in different strategies to obtain data that could identify the number of sites impacted without success. This included asking at industry forums, bi-lateral calls with Suppliers and through the consultation process.

Possible routes where this information could be obtained in future:

- Information on sites could be extracted from ECOES following MHHS Data Cleanse
- The Authority issue a Request for Information (RFI) to industry (Suppliers)

However, the Workgroup understand that these suggestions may not be compatible with the Urgent timeline required by this modification.

Double Charging implications and possible solutions

It is important to stress to industry that the Proposed solution developed by the Workgroup does not eliminate the risk of double charging of MPANs during the Transition phase of the MHHS Programme completely. The risk is significantly reduced compared to the baseline. In terms of trying to highlight this and any solutions, the Workgroup:

- has been specific on the scenarios/sites that could be subject to different charging arrangements and are therefore at risk of double charging as a result of this modification.
- Consider that Suppliers could be directed towards the MHHS Programme timelines including Qualification and Migration, so that they can review in the context of their portfolio in order to mitigate any risks directly to their business.

MHHS Programme CR32 and interaction with CMP430 legal text solution

The solution introduced to resolve the defects identified in CUSC is reliant on the successful development, testing and implementation of MHHS Programme CR32. The technical solution is currently being developed and is due to be tested as part of the MHHS Programme System Integration Testing (SIT) Cycle 3 in September 2024. As this will be after the decision on CMP430, the Workgroup recommends close interaction between the ESO, MHHS Programme and Elexon to ensure this solution is robustly tested and ready for implementation before 1st April 2025. This will ensure continuity for the sending of the TUoS file from Elexon to ESO for TNUoS charging purposes.

Implementation Activities

Throughout the modification process, the Workgroup has sought to make the proposed solution clear for CUSC Parties to understand. The Workgroup determined that the following would be beneficial:

- Introduction of a Guidance Note to the ESO Website – Guidance notes to be issued as part of CAC between 31 July and 8th August.
- ESO to amend text on Demand Forecast Form provided to Suppliers to clarify what information is required.

These will be made available after the decision from The Authority.

CMP431 Withdrawal

CMP431 ‘Adjustments to TNUoS Charging from 2025 to support the Market-wide Half Hourly Settlement (MHHS) Programme (Non-Charging)’[3] was raised at the same time as CMP430 to make any required changes to definitions or terminology within the CUSC that may be inconsistent with CMP430’s proposed solution and the MHHS baselined design. CMP431 focussed on potential changes to CUSC Section 3 and Section 11. Both CMP430 and CMP431 were granted Urgent status and needed to be run concurrently.

The Workgroup initially considered the proposed solution for CMP430 and associated legal text, as this would impact the proposed solution for CMP431. During the development of CMP430 legal text, it was established that the proposed solution could not have any dependency on BSC draft legal text being developed under the MHHS Programme, or any BSC text that could be subject to change as a result of MHHS.

As the Workgroup developed a revised solution to CMP430, it was decided to pause any thinking on CMP431 until the final proposed legal text had been considered by ESO's Legal team.

Running concurrently between Workgroup meetings 12 and 14, the Workgroup conducted a full Non-Charging CUSC review against the new CMP430 legal text, it was established that:

- No amendments were required to Section 3 as a result of the legal text being introduced in CMP430.
- Only 1 possible term "BSCCo" could be introduced to Section 11, but Workgroup felt this was already defined in the legal text of CMP430 and questioned appropriateness of including as part of CMP431.

Workgroup recommended Withdrawal of CMP431 based on above.

The Proposer confirmed with the ESO legal team the validity of not introducing the one new term "BSCCo" and that there was precedent with CUSC on not introducing new Terms into the CUSC, where they are inserted discreetly to the affected part of CUSC and not used elsewhere.

This was relayed back to the Workgroup and following Workgroup 15, the Proposer formally notified the CUSC Panel Secretary on 11 July 2024, they were withdrawing their support for CMP431. The industry window to become the Proposer of CMP431 opened on 11 July 2024 and is scheduled to close on 17:00 on 18 July 2024.

As there is now no co-dependency between CMP430 and CMP431, references have been removed within this Workgroup Report and CMP430 is now an independent modification Proposal to be assessed against the Applicable Charging Objectives.

Legal text

Legal Text Options

Multiple solutions described and various iterations of legal text have been presented and discussed by the Workgroup for both CMP430 and CMP431. All have centred around CR32, the technical solution that was approved in December 2023 that describes the TUoS file that allows the ESO to charge TNUoS. Any deviation from this solution would introduce additional costs to the MHHS Programme and also potentially jeopardised the Programme timelines.

Between Workgroups 3 and 7, the Workgroup explored the option of introducing legal text to CUSC to specify segmentation between charging methodologies. This involved replicating established Balancing and Settlement Code (BSC) definitions and some of the content outlined in the MHHS BSC legal text drafting. The solution considered introducing Measurement Class as currently defined in the BSC and also the new data attributes that would derive Measurement Class once an MPAN transitions to the new MHHS arrangements.

After legal review and discussions with The Authority, it was established that the proposed legal text introducing the new terms as part of CMP431 could not be used as the final MHHS BSC legal drafting will not be ratified by The Authority until 2025 and is still subject to change until that point. The Decision notice for CMP430 and CMP431 requires that this modification be approved before this date as they are subject to

timelines introduced by CMP292. Furthermore, it was noted that the solution for CMP430 was too complicated and would be very difficult to understand.

This was confirmed at Workgroup 8 by the Proposer who stated that they were looking to develop another solution. After a request from the Proposer to the Workgroup for assistance in developing the legal text, two Workgroup members offered their support. A meeting was held in May 2024, between the Proposer and the Workgroup members to collaboratively develop new legal text that did not have a dependency on draft BSC legal text, to be presented to the rest of the Workgroup.

Between Workgroups 8 and 15, the Workgroup discussed and refined the new proposed legal text. It is based on explaining to CUSC parties what changes in relation to charging arrangements will occur as a result of transitioning to the MHHS arrangements.

The solution is based on Annex 4, that was issued as part of the CMP430 Consultation Process. The underlying principle is that Suppliers will be charged TNUoS in the same way once they transition their portfolios to the new MHHS arrangements as before, except where an MPAN exhibits specific characteristics. During a review by the Workgroup and the ESO Revenue SME, it was determined that an additional clause needed to be introduced to fully capture treatment of Non-Domestic Metering Systems transitioning to the MHHS arrangements in addition to the two identified exceptions.

Due to the complexities of developing legal text for CMP430, the Workgroup requested an extension on the timeline to submit the Final modification Report (FMR) to The Authority. This was to allow a full review of CUSC Section 14, comparing the new legal text against existing baselined text to understand any unintended consequences and consider whether additional changes were required to facilitate this modification. The Authority granted this extension on 20 May 2024.

The Authority approval letter can be found in **Annex 3**.

Final Proposed Legal Text Agreed

After a comprehensive review of CUSC Section 14 by the Workgroup supported by ESO Legal and Revenue teams, it was established that only changes to the clauses 14.17.40.2 and 14.17.40.4 were required to be amended to complement the new proposed legal text introduced in CMP430.

The Workgroup agreed the final version of legal text for CMP430 at Workgroup 15. See **Annex 9**.

Observations on further legal text changes outside the scope of CMP430 and CMP431

At Workgroup 15, the Proposer highlighted additional clauses that have been identified within Section 14 of CUSC that could be introduced as part of another modification Proposal in future. This could be raised after the completion of the end of the transition phase of the MHHS Programme. These changes may also be superseded by any modifications raised as a result of the output of the ‘Signals’ Workgroup, as part of

TNUoS TaskForce. Further details on these can be found in the Workgroup 15 meeting papers.[19]

The Workgroup agreed that these legal text changes were not required under CMP430 and that they could be considered under a future, later modification.

Additional Terms of Reference Review

At Workgroup 14, the Workgroup conducted a full review of the ToRs for CMP430 to ensure they had been considered. In addition to the comments provided at the earlier consultation with the supplementary comments noted below, the Workgroup believe CMP430 ToRs have been met:

(a) - The Proposer discussed that the EBR implications were touched upon as part of the Workgroup consultation and did not believe there to be an impact. Once the proposed legal text was finalised, it was checked and confirmed that there were no EBR impacts.

(b) - The Proposer discussed the interaction with the BSC legal drafting and noted that this had been fully considered through various iterations and have continually linked in and appreciated the input from MHHS Programme and Elexon. The CMP430 proposed legal text is not contingent on draft BSC legal text. The Proposer was confident the Workgroup have fulfilled this ToR, and the group agreed.

(c) – The Proposer commented that the **Term of Reference (f)**, was linked to this and noted the Workgroup have considered as much as they can with the information available, but do not currently have an exact number of customers that will be subject to a different charging arrangement under the proposed solution.

The Workgroup members commented on this, and the consensus was that ranges of impacted sites have been identified as a result of the information gained from DCP414 and P432 and further quantification would not be possible until 2025 after the completion of the data cleanse activity. The Workgroup were satisfied that they had done all possible with the data available to meet this ToR.

(d) - Minimising or eliminating double charging was discussed earlier in the Workgroup process and the Workgroup have identified situations where suppliers and then potentially consumers are at risk of double charging where they change charging arrangements.

The risk cannot be eliminated, but the Workgroup have highlighted the times at which the risk is increased, and this is included in the Workgroup report (**Annex 5**). The Workgroup noted that significantly less sites will be subject to potential double charging under the proposed solution compared to the baseline.

(e) – There is no impact to the MHHS Programme from this Proposal.

(g) – One Supplier fed back that the proposed solution could require them to implement multiple system changes, but this view was not shared by all Workgroup members. Limited feedback was received as part of the Workgroup consultation from industry. The Proposers have raised awareness of this Modification and potential impacts to Suppliers at various industry forums with no indication that it is a significant change for industry to implement.

[19] https://www.nationalgrideso.com/document/321991/download

It was agreed by all that it would be a beneficial to add a question to the Code Administrator Consultation (CAC) to understand the costs more fully if possible.

(h) – The solution should be in place on an enduring basis as the Workgroup recognise there is expected to be future TNUoS Demand Locational Charging changes from the TNUoS Taskforce or REMA, but these have undefined timelines.

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	**Neutral** No impact

European Commission and/or the Agency *; and	
(e) Promoting efficiency in the implementation and administration of the system charging methodology.	**Positive** The original 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 final proposed solution no longer aligns BSC and CUSC definitions and does not create co-dependency between the codes. 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

Workgroup vote

The Workgroup met on 12 July 2024 to carry out their Workgroup vote. The full Workgroup vote can be found in **Annex 8**. The table below provides a summary of the Workgroup members view on the best option to implement this change.

The Applicable Grid Code CUSC (charging) Objectives are:

CUSC charging objectives

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 *; and
e) To promote efficiency in the implementation and administration of the system charging methodology

*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.

The Workgroup concluded unanimously that the Original better facilitated the Applicable Objectives than the Baseline.

Option	Number of voters that voted this option as better than the Baseline
Original	6

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 would need to be implemented on the same date.

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.

Interactions

☐Grid Code	☒BSC	☐STC	☐SQSS
☐European Network Codes	☐ EBR Article 18 T&Cs[20]	☐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 has ensured that the proposed CUSC legal text is operational without being contingent on any draft BSC legal text or BSC legal text that could be subject to change under the MHHS Programme. The MHHS Programme and Elexon have worked closely with the Workgroup to ensure consistency and no negative impacts across industry codes.

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
ECOES	Electricity Central Online Enquiry Service
HH	Half-Hourly
HV	High Voltage
ISD	Industry Standing Data
LLFC	Line Loss Factor Class
LLF	Line Loss Factors
LV	Low Voltage
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
SIT	System Integration Testing
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

[20] 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.

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
Annex 7	Workgroup Consultation Responses and Summary
Annex 8	Workgroup Vote
Annex 9	Legal text
Annex 10	Alternative Request Form and Vote
Annex 11	Attendance Record
Annex 12	Action Log