

CMP430/431

Workgroup 1 Wednesday 6 March 2024

Online Meeting via Teams

WELCOME





Modification Process

Deborah Spencer – ESO Code Administrator

Code Modification Process Overview





Refine solution Workgroups



- If the proposed solution requires further input from industry in order to develop the solution, a Workgroup will be set up.
- The Workgroup will:
 - further refine the solution, in their discussions and by holding a **Workgroup Consultation**
 - Consider other solutions, and may raise **Alternative Modifications** to be considered alongside the Original Modification
 - Have a **Workgroup Vote** so views of the Workgroup members can be expressed in the Workgroup Report which is presented to Panel



Consult Code Administrator Consultation

- The Code Administrator runs a consultation on the **final solution(s)**, to gather final views from industry before a decision is made on the modification.
- After this, the modification report is voted on by Panel who also give their views on the solution.





Decision



- Dependent on the Governance Route that was decided by Panel when the modification was raised
- **Standard Governance:** Ofgem makes the decision on whether or not the modification is implemented
- **Self-Governance:** Panel makes the decision on whether or not the modification is implemented
 - an appeals window is opened for 15 days following the Final Self Governance Modification Report being published

Implement

- The Code Administrator implements the final change which was decided by the Panel / Ofgem on the agreed date.





Workgroup Responsibilities

Deborah Spencer – ESO Code Administrator

Expectations of a Workgroup Member

Contribute to the discussion

Be respectful of each other's opinions

Language and Conduct to be consistent with the values of equality and diversity

Do not share commercially sensitive information

Be prepared - Review Papers and Reports ahead of meetings

Complete actions in a timely manner

Keep to agreed scope

Email communications to/cc'ing the .box email

Your Roles

Help refine/develop the solution(s)

Bring forward alternatives as early as possible

Vote on whether or not to proceed with requests for Alternatives

Vote on whether the solution(s) better facilitate the Code Objectives



Workgroup Alternatives and Workgroup Vote

Deborah Spencer – ESO Code Administrator

To participate in any votes, Workgroup members need to have attended at least 50% of meetings. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference)

Stage 1 – Alternative Vote

- Vote on whether Workgroup Alternative Requests should become Workgroup Alternative CUSC Modifications.
- The Alternative vote is carried out to identify the level of Workgroup support there is for any potential alternative options that have been brought forward by either any member of the Workgroup OR an Industry Participant as part of the Workgroup Consultation.
- **Should the majority of the Workgroup OR the Chair believe that the potential alternative solution may better facilitate the CUSC objectives than the Original then the potential alternative will be fully developed by the Workgroup with legal text to form a Workgroup Alternative CUSC modification (WACM) and submitted to the Panel and Authority alongside the Original solution for the Panel Recommendation vote and the Authority decision.**

Can I vote? and What is the Workgroup Vote?

To participate in any votes, Workgroup members need to have attended at least 50% of meetings. The vote shall be decided by simple majority of those present at the meeting at which the vote takes place (whether in person or by teleconference)

Stage 2 – Workgroup Vote

- 2a) Assess the original and Workgroup Alternative (if there are any) against the relevant Applicable Objectives compared to the baseline (the current code)
- 2b) Vote on which of the options is best.



Objectives and Timeline

Deborah Spencer – ESO Code Administrator



Objectives

- **Introductions**
- **Code Modification Process Overview**
- **Objectives and Timeline**
- **Review Terms of Reference**
- **Proposers Presentation**
- **Agree Terms of Reference**
- **AOB**
- **Next steps**

Workgroup Members

Name	Organisation type	Company/role	Role	Email address	Alternate Email Address
Lee Stone	Supplier	Npower Commercials gas Limited	Workgroup Member	lee.stone@eonenergy.com	niall.coyle@eonenergy.com
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Colin Berry	Elxon/BSCCo	Elxon	Observer	colin.berry@elxon.co.uk	derek.weaving@elxon.co.uk
Chris Welby	MHHS Programme (Elxon)	Elxon	Observer	chris.welby@mhhsprogramme.co.uk	jason.brogden@mhhsprogramme.co.uk

Timeline for CMP430 – Updated after CUSC Panel (23 February 2024)

Milestone	Date	Milestone	Date
Modification presented to Panel	23 February 2024	Code Administrator Consultation (6 working days)	10 June 2024 to 14 June 2024
Workgroup Nominations (4 Working Days)	23 February 2024 to 29 February 2024	Draft Final Modification Report (DFMR) issued to Panel (4 working days)	24 June 2024
Ofgem grant Urgency	29 February 2024 (5pm)	Panel undertake DFMR recommendation vote	28 June 2024
Workgroup 1 to 7 (assuming Ofgem have granted Urgency)	06 March 2024 11 March 2024 13 March 2024 19 March 2024 28 March 2024 05 April 2024 15 April 2024	Final Modification Report issued to Panel to check votes recorded correctly	28 June 2024
Workgroup Consultation (5 working days)	17 April 2024 – 24 April 2024	Final Modification Report issued to Ofgem	28 June 2024
Workgroup 8 to 14 - Assess Workgroup Consultation Responses and Workgroup Vote	29 April 2024 03 May 2024 08 May 2024 13 May 2024 20 May 2024 24 May 2024 30 May 2024	Ofgem decision	30 September 2024
Workgroup Report issued to CUSC dot box	03 June 2024	Implementation Date	01 April 2025
Workgroup Report presented to Special Panel (Panel agree Workgroup report has met its Terms of Reference)	07 June 2024		



Terms of Reference

Deborah Spencer – ESO Code Administrator

Workgroup Term of Reference CMP430

- a) Consider EBR implications
- b) Consider interaction with the BSC legal text drafting as part of the MHHS Programme
- 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.
- d) Consider minimising or eliminating double charging
- e) Consider the impacts on the Market-wide Half Hourly Settlement (MHHS) Programme
- f) Consider the number of consumers impacted by each element of the defect and respective solution
- g) Consider implementation costs and timescales for all of industry
- 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?



Workgroup Term of Reference CMP431

- a) Consider EBR implications
- b) Consider the interactions with CMP430 and the BSC legal text drafting as part of the MHHS Programme
- c) Consider the impacts on the Market-wide Half Hourly Settlement (MHHS) Programme



Proposers Solution

Neil Dewar and Keren Kelly - ESO



CMP430 (Charging) and CMP431 (Non-Charging)

Adjustments to TNUoS Charging from 2025 to support the MHHS Programme

Workgroup 1

Neil Dewar and Keren Kelly

Agenda

1. Recap of slides presented at CUSC Panel on 23rd Feb
 - Defect (Charging and Non-Charging)
 - Proposed Solution (Charging and Non-Charging)
2. Alternative solutions considered

Appendix – for reference only

Background

TNUoS Charging

- Within the CUSC there are two mechanisms for demand locational Transmission Network Use of System (TNUoS) Charging:
 - Non Half Hourly (NHH) transmission charges are based on the total volume consumed between 4pm and 7pm over the course of the year
 - Half Hourly (HH) transmission charges are based on the consumer's average demand during the three 'Triad' periods between November and February.
- Modification Proposal CMP266 was approved by Ofgem on 20th December 2016 and was extended with the approval of CMP318 and CMP 401 – the latter linking to the Market-wide Half Hourly Settlement (MHHS) Programme end of Migration period
 - These Modifications afforded protection from the risk of double charging for sites that were in Measurement Classes F and G.

MHHS Programme Timeline

- In April 2021, Ofgem published their MHHS Decision and Full Business Case with associated transition timetable. This however, was subject to an 18 month delay and a Re-Plan was approved by Ofgem in June 2023. The Programme is due to be completed by December 2026.
- The MHHS Programme is split into different Milestones with the Supplier Migration of Meter Point Administrator Numbers (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 Target Operating Model (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.

Existing CUSC Charging Methodologies

- The CUSC sets out different charging methodologies for Demand Locational charges:
 - Chargeable Demand Locational Capacity ('Triad'):
 - the average of the Supplier BM Unit's **half-hourly** metered gross demand during the Triad (£/kW)
 - Chargeable Energy Capacity ('4pm-7pm peak'):
 - the Supplier BM Unit's **non half-hourly** metered energy consumption over the period 16:00 hrs to 19:00 hrs inclusive every day over the Financial Year (p/kWh)
 - Chargeable Embedded Export Capacity:
 - the average of the Supplier BM Unit's **half-hourly** metered embedded export during the Triad

The CUSC does not define segmentation between half-hourly and non half-hourly 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 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 non half-hourly.
- Measurement Class as a data item will no longer exist in the new MHHS TOM and the CCC replacement is not identical and therefore cannot replicate the information the P0210 (TUoS File HH/NHH Split).

Defect

Defect

- 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

Proposed Solution Approach

- ESO are proposing to have two Modifications discussed concurrently at Workgroups to optimise efficiency:
 - Charging Modification Proposal (CMP430)
 - Non- Charging Modification Proposal (CMP431)
- Suggested approach is to have multiple Workgroups across a short period of time in March and April (possibly multiple meetings in same week.)
- Objective to send to Ofgem by end of May to allow Ofgem to make a decision by 30th September to ensure compliance with CMP292 and implementation for 1st April 2025
- 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](#), 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.

Charging Modification (CMP430) Proposed Solution

- ESO propose to amend CUSC to maintain the current charging methodologies and segment customers by the new MHHS data items that make up the P0210 report as a result of approval of Change Request (CR) 32 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 as ISD Entity ID M2
- The proposal is to align the CUSC to the relevant Balancing and Settlement Code (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 Premise Indicator

- The following 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

Benefits and Risks of Solution

Benefits

- 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
- This solution is preferable to others considered in relation to central IT impacts and costs required to support this solution. It is anticipated that only Elexon logic to populate the P0210 file would be required.
- This solution poses the least risk of impacting MHHS delivery timescales and has been discussed with Elexon, Helix and MHHS Programme and they are supportive of this solution.

Risks

- Some MPANs would face a change in charging methodology as the Measurement Class mapping cannot replicate the current segmentation exactly.

Non-Charging Modification (CMP431) Proposed Solution

- With the proposed approach to the Charging solution, ESO believes that changes to Section 3 'Use of System' and Section 11 'Interpretations and Definitions' can be minimised.
- ESO anticipate that new clauses and definitions will be required to ensure that the CUSC is fit for purpose for both non-migrated and migrated MPANs.

Benefits and Risks of Solution

Benefits

- The changes proposed under the Non-Charging Modification will ensure that Section 3 and Section 11 are consistent with the Charging Modification and MHHS Programme code drafting.
- Feedback on the approach and subsequent changes will be sought from the Workgroup.
- By raising this Modification proposal at the same time as the Charging Proposal, it increases efficiency and prevents delay of returning to CUSC Panel at a later date and possible delay in completing Modification process to send to The Authority for decision

Risks

- Until CMP430 solution agreed, we are not able to articulate the amount of changes required as a result of the Charging Methodology Modification Proposal, although these are expected to be minimal

Suggested Governance Route

We have requested that both Modification Proposals are treated as Urgent Modifications to proceed under a timetable agreed by the Authority (with an Authority decision). We believe that both Modifications should progress to assessment by Workgroup.

ESO is requesting raising as Urgent Modification(s) and believe it would merit under current criteria:

(a) significant commercial impact on parties, consumers or other stakeholder(s)

- Both Modifications relate to an imminent issue that would begin to impact parties, and therefore potentially consumers, from April 2025
- If the defects are not addressed under urgent timescales:
 - Parties will not have adequate notice of charging arrangements and tariff setting for Charging Year 2025 which introduces increased commercial risk
 - There will be a significant increase in the instances of double charging sites under two different methodologies in the same Charging Year, again having a commercial impact on parties and potentially consumers
 - Suppliers are not likely to have sufficient time to adjust their MHHS Migration plans under MHHS governance to mitigate double charging risk
 - CUSC changes would be misaligned with MHHS Programme Milestones which could introduce a lack of clarity to all MHHS Programme Participants within the timebound, major reform of settlement arrangements
 - MHHS is a key enabler for realising demand-shifting benefits for transmission networks. Estimate £1.4bn by 2034. A single year's delay in MHHS would lead to £90m in lost benefits. Both those figures come from their 2019 smart meter roll out CBA, so if the exercise were repeated today, both figures would likely be higher. There are also unmonetized benefits for the distribution network from demand-shifting that would likely be reduced by any delay.

Alternative solutions considered

Description	Rationale
Do nothing	<p>All sites would eventually move to the triad methodology across migration which is not desirable for domestic consumers.</p> <p>Instances of double charging would significantly increase as all non-half hourly settled portfolio would move to half hourly settled during migration.</p>
Move all sites to the 4-7pm peak methodology from the start of Migration	<p>Those currently charged on Triad methodology would incur a greater proportion of the cost than they do now.</p> <p>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.</p> <p>Risk of double charging would be removed as sites would not move between different methodologies.</p>
Reintroduce Measurement Class as a data item to MHHS TOM	<p>Significant additional cost and delay would be introduced to MHHS Programme (at estimated £90m p/a cost to industry).</p> <p>In direct conflict with design principles for the MHHS TOM and Ofgem design decision.</p> <p>Rationale for removal of Measurement Class still valid, and reintroduction would be for charging purposes only.</p> <p>MHHS Change Request would be required which would be unlikely to be approved.</p>
Elexon introduce consumption monitoring process to recreate segmentation by existing Measurement Class descriptions	<p>Significant additional cost and delay would be introduced to MHHS Programme (at estimated £90m p/a cost to industry).</p> <p>Creation of new process to monitor half hourly data for 30 million sites would be significant undertaking for a limited duration</p> <p>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.</p>
Obligate Distribution Network Operators (DNOs) to provide data rather than Elexon	<p>Any data provided by DNOs would require significant IT solution to manipulate to transform it to appropriate level for TNUoS charging.</p> <p>Meter-level data would require distribution losses and group correction factor to be applied.</p> <p>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.</p> <p>Creation of new process would be significant undertaking for a limited duration.</p>
Remove NHH References from CUSC from April 2025	<p>At the start of Migration, all sites move would be subject to the triad methodology which would not be desirable for domestic consumers.</p> <p>Risk of double charging would be removed as sites would not move between different methodologies.</p>

Any Questions?

Appendix

Measurement Classes as defined in BSC

BSC defined definition

A classification of Metering Systems which indicates how Consumption is measured i.e.

- ▶ Non Half Hourly Metering Equipment (equivalent to Measurement Class “A”)
- ▶ Non Half Hourly Unmetered Supplies (equivalent to Measurement Class “B”)
- ▶ Half Hourly Metering Equipment at above 100kW Premises (equivalent to Measurement Class “C”)
- ▶ Half Hourly Unmetered Supplies (equivalent to Measurement Class “D”)
- ▶ Half Hourly Metering Equipment at below 100kW Premises with current transformer (equivalent to Measurement Class “E”)
- ▶ Half Hourly Metering Equipment at below 100kW Premises with current transformer or whole current, and at Domestic Premises (equivalent to Measurement Class “F”)
- ▶ Half Hourly Metering Equipment at below 100kW Premises with whole current and not at Domestic Premises (equivalent to Measurement Class “G”)

New Consumption Component Classes

ISD Entity ID M5 - MHHS Consumption Component Classes

CCC ID	Market Segment Indicator	Measurement Quantity	Consumption Component Indicator	Connection Type Indicator	Settlement Period Quality Indicator

Column Name	Data Type/Length	Other information
CCC ID	Int(3)	Mandatory. Unique Identifier for MHHS Consumption Component Classes
Market Segment Indicator	1 character	Mandatory. Either 'U', 'S' or 'A'
Measurement Quantity	2 characters	Mandatory. Either Active Import 'AI' or Active Export 'AE'
Consumption Component Indicator	1 character	Mandatory. Either
Consumption 'C' or Losses 'L'		
Connection Type Indicator	1 character	Mandatory. Either W, L, H, E or U
Settlement Period Quality Indicator	5 characters	Mandatory. E.g. A, E1, E2, E3, E4

New Connection Type Indicator

ISD Entity ID M2 - Connection Type Indicator

Connection Type Indicator	Connection Type Description

Column Name	Data Type/Length	Other information
Connection Type Indicator	1 characters	Mandatory, Either W, L, H, E or U
Connection Type Description	Up to 50 characters	Mandatory. Either Whole Current, Low Voltage with Current Transformer. High Voltage with Current transformer, Extra High Voltage with Current Transformer or Unmetered

Example:

Connection Type Indicator	Connection Type Description
W	Whole Current
L	Low Voltage with Current Transformer
H	High Voltage with Current transformer
E	Extra High Voltage with Current Transformer
U	Unmetered



Any Other Business

Deborah Spencer – ESO Code Administrator



Next Steps

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