

Authority Led CUSC Modification Report

CMP378: Market-wide Half- Hourly Settlement (MHHS) Implementation and Governance Arrangements

Overview:

This Modification inserts a new Clause into the Connection and Use of System Code (CUSC) to place an obligation on The Company (defined in the CUSC as National Grid Electricity System Operator (NGESO) Limited) and upon the CUSC Code Administrator to comply with the obligations insofar as these apply to them under Section C12 (Market-wide Half-Hourly Settlement Implementation) of the Balancing and Settlement Code (BSC).

Modification process & timetable



Have 5 minutes? Read our [Executive summary](#)

Have 20 minutes? Read the full Authority Led CUSC Modification Report

Have 30 minutes? Read the full Authority Led CUSC Modification Report and Annexes.

Status summary: Final Modification Report. This Report has been submitted to the Authority for them to decide whether this change should happen.

Panel Recommendation: The Panel held their recommendation vote on 24 September 2021. The CUSC Panel unanimously recommended that CMP378 should be implemented.

This modification is expected to have a: Medium impact on NGESO and the Code Administrator

Governance route This is an Authority Led CUSC Modification Proposal. It will not follow the standard CUSC modification process. Instead it will follow

	the timetable set by the Authority and the Authority Led CUSC Modification Proposal procedure as detailed in Clause 8.17B of the CUSC.	
Who can I talk to about the change?	Proposer: Rachel Clark (Ofgem) HalfHourlySettlement@ofgem.gov.uk 020 7901 7000	Code Administrator Contact: Paul Mullen Paul.j.mullen@nationalgrideso.com 07794537028

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What is the issue?

The defect that this modification proposal seeks to address is that there is currently no obligation within the CUSC on The Company (defined in the CUSC as National Grid Electricity System Operator (NGESO) Limited) and on the CUSC Code Administrator for it to comply with the Market-wide Half-Hourly Settlement (MHHS) implementation provisions that will apply to them and which are to be set out in the Balancing and Settlement Code (BSC) - Section C12 of the BSC. NGESO (and the CUSC Code Administrator) will therefore have no explicit obligation in the CUSC to identify, plan and deliver all the necessary CUSC changes (to the CUSC code, systems and processes) for MHHS implementation. This change to the CUSC will provide certainty about the obligations being placed by the Authority on NGESO (and the CUSC Code Administrator) and will promote a consistent approach with all the codes that are affected by the MHHS implementation provisions – see Ofgem’s [MHHS decision on implementation arrangements \(11 August 2021\)](#).

Why change?

Currently, generators and suppliers trade electricity in the wholesale market in half-hourly periods, but most customers are settled on a ‘non-half-hourly’ basis, using usage estimates that are based on profiles of average customers and meter readings. There can be considerable variances between these estimates and actual usage.

Market-wide Half-Hourly Settlement (MHHS) will utilise the potential of smart meters to send accurate signals to suppliers about the cost of serving their customers throughout each day. This will place incentives on suppliers to offer new tariffs and products that encourage more flexible use of energy and help consumers to lower their bills. This will increase competition and innovation in the market and reduce costs, with numerous benefits to consumers and to wider society. Ofgem estimate that MHHS will bring net benefits for consumers of £1.6bn-£4.5bn over the period 2021-2045.

Ofgem have published [their decision to proceed with MHHS alongside the Full Business Case and Final Impact Assessment \(April 2021\)](#). Ofgem have set out their expectation for the transition to full MHHS implementation to be completed by October 2025. In their decision, Ofgem confirmed that responsibility for management and delivery of the programme would sit with industry, with Elexon acting as Senior Responsible Owner (SRO) for the programme and having responsibility for ensuring the timely and efficient implementation of MHHS.

The successful introduction of MHHS will require a number of changes to operational and governance procedures across the electricity market. These will be managed and implemented by Elexon. These changes are being progressed through modifications to the BSC and to other affected codes – see [Ofgem’s update \(12 August 2021\)](#). The first BSC modification is [P423](#).

Affected code bodies, including NGESO, will need to modify their codes in order to obligate them to work collaboratively with Elexon on MHHS implementation, and will need to undertake to make changes to their systems and processes to bring them into alignment with the new operational and governance procedures. Ofgem are progressing modifications separately for each of the affected codes.

The successful introduction of MHHS will be dependent upon all affected code bodies, including NGESO, working collaboratively with Elexon and each other to deliver the changes to codes, systems and processes necessary for MHHS implementation. Although there are various obligations that create a ‘duty to cooperate’ with the implementation of

the outcomes of an SCR, the code changes that are being progressed will mandate more detailed obligations. Ofgem is therefore progressing this modification to incorporate the relevant obligation on NGENSO into the CUSC.

What is the Proposer's solution?

To add a new Clause within the CUSC to obligate NGENSO to help deliver the changes to codes, systems and processes necessary for MHHS implementation.

Legal text

Add a new Clause 8.2.3 to the main body of the CUSC as follows:

"8.2.3 Market-wide Half-Hourly Settlement Implementation

The Company shall (and shall ensure that the **Code Administrator** shall) comply with the obligations expressed to apply to **The Company** (either specifically or generally as a category of participant) under section C12 (Market-wide Half Hourly Settlement Implementation) of the **Balancing and Settlement Code**."

What is the impact of this change?

Proposer's assessment against CUSC Non-Charging Objectives

Relevant Objective	Identified impact
(a) The efficient discharge by the Licensee of the obligations imposed on it by the Act and the Transmission Licence;	Positive This modification will place an obligation on NGENSO to ensure it complies with its obligations as set out in the BSC Section C12 (MHHS Implementation). Its implementation is needed to ensure that CUSC remains aligned with the rest of the affected industry codes and therefore able to efficiently meet these obligations.
(b) Facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the sale, distribution and purchase of electricity;	Positive The successful introduction of MHHS will have wider benefits in terms of incentivising retailers and suppliers to develop products and services encouraging customer behaviour that contributes

	<p>to a more cost-effective electricity system. This, alongside the reduced barriers to entry from faster and more efficient settlement, will increase competition, and facilitate new and disruptive business models into the retail energy market.</p> <p>This modification provides the framework within the CUSC, alongside the changes to other affected industry codes for MHHS to be successfully implemented and for these wider benefits to be realised.</p>
<p>(c) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency *; and</p>	<p>Neutral</p>
<p>(d) Promoting efficiency in the implementation and administration of the CUSC arrangements.</p>	<p>Positive</p> <p>The actual implementation of MHHS, including the design of governance and operational procedures, will be managed by Elexon and regulated through the BSC. The CUSC will be required to stay aligned with these new arrangements, which will ensure improved efficiency and cross-code coordination across the different codes, and ensure that the CUSC is aligned appropriately with other codes for MHHS changes.</p>
<p>*Objective (c) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).</p>	

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	<p>Positive</p> <p>MHHS is a key enabler for a smarter, more flexible electricity system and will facilitate the development of new, innovative business models. Using innovation enabled by MHHS to reward consumers for matching their consumption with periods of high generation from renewables such as wind and solar photovoltaics (PV) can help to integrate this generation into the system.</p> <p>This modification is necessary for MHHS to be successfully implemented and for these benefits to be realised.</p>
Lower bills than would otherwise be the case	<p>Positive</p> <p>MHHS will ensure that charges to suppliers for wholesale electricity more accurately match actual consumption, rather than relying on estimates of consumer usage. This will incentivise suppliers to offer new tariffs and products that encourage a more flexible use of energy and help consumers to lower their bills, for example through time of use tariffs, automation, vehicle to grid solutions and battery storage. It will help to reduce cost to current and future consumers, through reducing the need for infrastructure investment and facilitating more efficient use of generation and network assets. We estimate that MHHS will deliver net benefits to GB energy consumers in the range of £1.6bn-£4.5bn between 2021 and 2045.</p> <p>This modification is necessary for MHHS to be successfully implemented and for these benefits to be realised.</p>
Benefits for society as a whole	<p>Positive</p> <p>MHHS will increase competition between suppliers (including innovative new entrants to the market), create a more flexible electricity wholesale market and facilitate the development of new, innovative business models, products and services that consumers can engage with in the future. There will be numerous benefits, some quantifiable and some intangible. We have published an Impact Assessment that sets this out in detail (See references).</p> <p>This modification is necessary for MHHS to be successfully implemented and for these benefits to be realised.</p>
Reduced environmental damage	<p>Positive</p> <p>MHHS will encourage a more flexible use of energy and will create opportunities for the market to develop new products and services, including lowering the barriers for entry for new green energy suppliers and helping to decarbonise the sector cost-effectively.</p> <p>This modification is necessary for MHHS to be successfully implemented and for these benefits to be realised.</p> <p>For reference, Ofgem have undertaken an impact assessment on greenhouse gas emissions and carbon costs for MHHS as part of their final impact assessment. This is set out in paragraphs 4.67 to 4.74 on pages 82-86 of their final impact assessment.</p>

Improved quality of service	<p>Positive</p> <p>The incentives created by MHHS will encourage development of new products and services for consumers, helping them use electricity more flexibly, saving money and reducing their carbon footprint. MHHS will also make central settlement processes faster and more efficient.</p> <p>This modification is necessary for MHHS to be successfully implemented and for these benefits to be realised.</p>
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Code Administrator Consultation summary

The Code Administrator Consultation was issued on the 31 August 2021 closed on 14 September 2021 and received 1 non-confidential response. This respondent was supportive of the change and implementation approach and no changes were proposed to the legal text. The full response can be found in Annex 2.

Panel Recommendation Vote

The Panel met on the 24 September 2021 to carry out their recommendation vote.

Prior to carrying out their recommendation vote, the Panel unanimously agreed that no assessment of the proposal on greenhouse gas emissions is needed.

Panel then assessed whether a change should be made to the CUSC by assessing the proposed change against the Applicable Objectives.

Vote 1 - Does the Original facilitate the objectives better than the Baseline?

Panel Member: Andy Pace

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Yes	Yes

Voting Statement

This modification places an obligation on the ESO to comply with the obligations placed on them in the BSC in support of the implementation of market wide half hourly settlement (MWHHS). We believe this is a beneficial change as it will assist in the implementation of MWHHS which will ultimately benefit consumers and assess the mod as better meeting objectives (a), (b) and (d).

Panel Member: Garth Graham

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Yes	Yes
Voting Statement					
I concur with the Authority's view, as set out in the proposal, along with the consultation response that this change is positive against the relevant Applicable CUSC Objectives (whilst being mindful that the change to the CUSC itself is minor and that it only affects the ESO, who is supportive of this change).					

Panel Member: Grace March

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Yes	Yes
Voting Statement					
This modification will ensure alignment with the BSC, is necessary to realise the benefits of MHHS and will support implementation of MHHS with other Codes.					

Panel Member: Jon Wisdom

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Overall (Y/N)
Original	Neutral	Neutral	Neutral	Yes	Yes
Voting Statement					
<p>NGESO is committed to delivery of the MHHS Programme in both its role as code administrator for the CUSC and as the Electricity System Operator. This modification reinforces NGESO's requirement to comply with the new BSC section C12, and in doing so participate in cross code coordination for effective MHHS implementation. It therefore better facilitates CUSC Objective (d).</p> <p>The modification is neutral against CUSC Objective (b) as, although we recognise and agree with the extensive benefits associated with the MHHS Programme, they will not be delivered as a direct result of this change and will require further changes to the CUSC and other industry arrangements to realise.</p> <p>The modification is also neutral against CUSC Objective (a) as the ESO already has a licence obligation to cooperate with Significant Code Reviews and to comply with the BSC.</p>					

Panel Member: Mark Duffield

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Overall (Y/N)
Original	Yes	Neutral	Neutral	Neutral	Yes
Voting Statement					
By codifying the nature of the obligations on NG ESO (and by extension the Code Administrator) in respect of their cooperation in the wider implementation of the Market Wide Half Hourly Settlement Arrangements CMP378 better facilitates relevant objective (a).					

Panel Member: Paul Jones

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Overall (Y/N)
Original	Neutral	Neutral	Neutral	Yes	Yes
Voting Statement					
CMP378 does not deliver any specific benefits for the market in itself. These are delivered under the associated BSC arrangements. It does provide a marginal benefit of clarifying in the CUSC what the ESO's obligations are in respect of Market-wide Half Hourly Settlement under the BSC, although it does not create any new obligations in itself.					

Panel Member: Paul Mott

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Overall (Y/N)
Original	Yes	Yes	Neutral	Yes	Yes
Voting Statement					
Market-wide Half-Hourly Settlement Implementation is important and this CUSC change allows the ESO to ensure the CUSC complies with C12 of the BSC as it may be, or become, relevant to CUSC. The mod ensures that CUSC is aligned with the rest of the affected industry codes and therefore able to efficiently meet these obligations as per CAO (a) and (d). MHHS is vital to getting to net zero but will enable suppliers to innovate and compete in DSR, relevant to (b).					

Panel Member: Simon Lord

	Better facilitates AO (a)?	Better facilitates AO (b)?	Better facilitates AO (c)?	Better facilitates AO (d)?	Overall (Y/N)
Original	Neutral	Neutral	Neutral	Yes	Yes
Voting Statement					
This change to the CUSC will provide certainty about the obligations being placed by the Authority on NGENSO (and the CUSC Code Administrator) and will promote a consistent approach with all the codes that are affected by the MHHS implementation provisions					

Vote 2 – Which option is the best?

Panel Member	BEST Option?	Which objectives does this option better facilitate? (If baseline not applicable).
Andy Pace	Original	a, b, d
Garth Graham	Original	a, b, d
Grace March	Original	a, b, d
Jon Wisdom	Original	d
Mark Duffield	Original	a
Paul Jones	Original	d
Paul Mott	Original	a, b, d
Simon Lord	Original	d

Panel conclusion

The Panel unanimously recommended that the Proposer's solution should be implemented.

When will this change take place?

Implementation date

3 Working days after an Authority decision to approve

Date decision required by

We anticipate an Authority decision by 12 October 2021 which, subject to Authority approval, would allow Implementation on 15 October 2021

Implementation approach

Not applicable for this particular change

Interactions

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Grid Code | <input checked="" type="checkbox"/> BSC | <input type="checkbox"/> STC | <input type="checkbox"/> SQSS |
| <input type="checkbox"/> European
Network Codes | <input type="checkbox"/> EBR Article 18
T&Cs ¹ | <input type="checkbox"/> Other
modifications | <input checked="" type="checkbox"/> Other |

In parallel to this modification, Ofgem are separately progressing modifications to the codes of several other code bodies in parallel with this modification, namely, BSC, DCUSA and SEC. The BSC modification will introduce the implementation and governance arrangements for MHHS, including obligations on programme parties, the governance framework and independent assurance. The change to the other codes will formally obligate the affected code bodies to work collaboratively with Elexon using the new operational and governance procedures that are being added to the BSC. Ofgem will be progressing code modification proposals for the other codes in due course.

Ofgem also expect to make changes to the Retail Energy Code, once version 2.0 comes into force, which will be no earlier than 1 September 2021.

Acronyms, key terms and reference material

Acronym / key term	Meaning
BSC	Balancing and Settlement Code
CMP	CUSC Modification Proposal
CUSC	Connection and Use of System Code
DCUSA	Distribution Connection and Use of System Agreement
EBGL	Electricity Balancing Guideline
HHS	Half-Hourly Settlement
MHHS	Market-wide Half-Hourly Settlement
NGESO	National Grid Electricity System Operator
SEC	Smart Energy Code
STC	System Operator Transmission Owner Code
SQSS	Security and Quality of Supply Standards
T&Cs	Terms and Conditions

¹ If your modification amends any of the clauses mapped out in Exhibit Y to the CUSC, it will change the Terms & Conditions relating to Balancing Service Providers. The modification will need to follow the process set out in Article 18 of the European Electricity Balancing Guideline (EBGL – 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.

Annexes

Annex	Information
Annex 1	Proposal Form
Annex 2	Code Administrator Consultation Response

Reference material

- [Ofgem consultation - 'Market Wide Half Hourly Settlement \(MHHS\) – Consultation on Programme Implementation Principles' \(22 January 2021\)](#)
- [Ofgem decision - 'Electricity Retail Market-wide Half-hourly Settlement: Decision and Full Business Case' \(20 April 2021\)](#)
- [Ofgem consultation - 'Market Wide Half Hourly Settlement \(MHHS\) – Consultation on Implementation and Governance Arrangements' \(23 April 2021\)](#)
- [Ofgem decision - 'Market-wide Half-hourly Settlement: Decision on implementation arrangements' \(11 August 2021\)](#)
- [Ofgem update – 'Electricity Settlement Reform Significant Code Review: Authority-Led Code Modification Proposals \(12 August 2021\)](#)