RETAIL ENERGY CODE

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01	Initial Assessment Report
02	Preliminary Change Report
03	Final Change Report

CHANGE REPORT

R0093 - UPLIFT TO CSS MAXIMUM DEMAND VOLUMES DURING MHHS MIGRATION PERIOD

CHANGE REPORT	PRELIMINARY
DOCUMENT VERSION	2.0
ISSUED DATE	30/11/2023
DOCUMENT APPROVAL STATUS	APPROVED

RESPONSIBLE COMMITTEE	TECHNICAL EXPERT PANEL	CHANGE PATH	SELF-GOVERNANCE
PRIORITY STATUS	HIGH	URGENCY	STANDARD

DEADLINE FOR ALTERNATIVE CHANGE PROPOSALS	17/11/2023

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CHANGE OVERVIEW

This Change Proposal seeks to make the necessary updates to the REC, primarily to the Central Switching Service (CSS) Service Definition, to ensure that the CSS Provider is appropriately prepared for the increase in message volumes that will be created during the Market Wide Half-Hourly Settlement (MHHS) programme migration period.

	High Impact: CSS Provider
	Medium Impact: MHHS Programme CSS Users
	Low Impact: N/A

CODE MANAGER'S RECOMMENDATION

The Code Manager recommends Change Proposal R0093 is **APPROVED** for implementation on 23 February 2024.

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BACKGROUND

1 SUMMARY

The Market Wide Half-Hourly Settlement (MHHS) programme is responsible for the detailed design and implementation of the MHHS Target Operating Model. The detailed design is now complete, and the programme participants have started to design, build and test the changes required to their systems and processes in order to implement MHHS. Once this is complete, and MHHS goes live, Electricity Suppliers will be required to migrate all electricity Metering Points to MHHS over a 12-to-18-month period (in accordance with the MHHS programme plan).

The migration design process, which is in the final stages of definition, will involve the appointment of MHHS supplier agents - Metering Equipment Managers (MEMs), Data Services and Smart Meter Data Retriever (SMDRs) – and the de-appointment of legacy Supplier Agents – existing MEMs, Data Collectors and Data Aggregators. This may occur as part of a Switch, or as a separate planned migration activity by the Supplier.

The MHHS programme have also determined that the migration design will allow for 'reverse migration' to occur on a Switch, where an MPAN will be able to revert to legacy settlement arrangements if switching to a Supplier who is not yet qualified for MHHS.

All central systems, including the Central Switching Service (CSS), will need to manage an increased volume of messages during this period, to accommodate the migration of approximately 31 million MPANs (in addition to business as usual (BAU) requirements).

The CSS is currently required to be capable of processing, as a minimum, the following volume of Switch Requests and changes to Supplier Agents:

- average daily volume of 42,300;
- peak daily volume of 281,600;
- average hourly volume of 3,500;
- peak hourly volume of 25,300; and
- annual volume of 15,450,000.

The expected volume of messages during the MHHS Migration Period is anticipated to exceed these volumes significantly. It is important that the CSS Provider is capable of managing any additional volumes required during this period, to ensure there is no detrimental impact on the MHHS migration process or switching arrangements.

Analysis and solution development activities has been progressed at the same time as the initial assessment. This included discussions with the MHHS programme on migration volumes and as further clarity is provided this will be considered during development of the solution.

2 PROBLEM STATEMENT

As part of the MHHS programme, it is necessary to migrate approximately 31 million MPANs from the existing settlement arrangements to those under the MHHS Target Operating Model. This will create a significantly increased volume of messages, whether for Switches or changes to Supplier Agents, for the CSS during the MHHS Migration Period. The CSS Service Definition does not currently require the CSS Provider to be capable of processing these additional volumes.

3 USER STORIES

REF.	USER STORIES
CONSUMER USER STORIES	
C1	As an Electricity Consumer, I want the migration of my MPAN to the new HH Settlement arrangements to be as smooth as possible, so that the service I receive from my Electricity Supplier or its appointed agents is not interrupted,
C2	As an Electricity Consumer, I want my ability to switch to be impacted as little as possible by MHHS migration activities.
MARKET PARTICIPANT USER STORIES	
M1	As the CSS Provider, I want to be prepared for the increased volumes expected during the MHHS Migration Period,
M2	As an Electricity Supplier, I want the MPANs I select to the new HH Settlement arrangements to complete their migration without undue delay, so that the service I provide to Consumers is impacted as little as possible and so that I can meet my migration obligations,
M3	As a MEM, as part of migration I want my new appointment and my legacy de-appointment to occur within the planned timescales so that the services I provide are impacted as little as possible,
M4	As a Data Service, as part of migration, I want my new appointment to occur within the planned timescales so that the services I provide can commence in a timely manner,
M5	As a Data Collector, I want my legacy de-appointment to occur within the planned timescales so that I have a clear understanding and smooth ending to the service I provide,
M6	As the Electricity Retail Data Service (ERDS) Provider, I want the CSS to be able to manage the volume of messages being sent so that I can provide the service I am required to during the MHHS Migration Period.

4 SUMMARY OF ANALYSIS UNDERTAKEN

The solution was not fully defined when this Change Proposal was raised. The Code Manager worked with the CSS Provider, the provider of the Metering Point Registration System (MPRS) within ERDS, RECCo and MHHS stakeholders (in the early stages of solution development) to understand the high-level impacts to CSS message volumes resulting from MHHS migration and the solution approach has been adjusted throughout the impact assessment period as a result of detailed discussions with the CSS Provider at each stage.

At the time it was not possible to specify, as part of R0093, exactly what the message volumes would be, including any peaks, troughs, or variations as a result of actual migration activity. These thresholds and variances are being governed by the MHHS programme, who will be responsible for communicating them.

5 PROPOSED SOLUTION

The proposed solution is that a new obligation is introduced within the CSS Service Definition, under paragraph 7.3 and a new paragraph 7.11. This will stipulate that the CSS Provider shall be capable of processing, within existing service levels, the volume of messages associated with changes to electricity Supplier Agents and Smart Meter Data Retrievers, in accordance with the maximum daily migration volumes published in the MHHS Migration Plan.

Furthermore, it is outlined that failure to achieve the required service levels shall be considered as a failed Performance Level in accordance with Annex A of the Performance Assurance Schedules.

Finally, the solution also highlights that the CSS Provider shall have sole responsibility for:

- ensuring active engagement with the MHHS programme;
- identifying any changes to the daily migration volumes; and,
- actioning any necessary steps to manage and support volumes accordingly.

The solution ensures that the CSS Provider has clear requirements, roles and responsibilities during the MHHS Migration Period and to eliminate any ambiguity with regards to expectations.

Further details for the proposed solution can be found in the Solution Development Report here.

6 DRAFT LEGAL TEXT

The legal text changes to deliver the proposed solution to R0093 can be found here.

The legal text change to the CSS Service Definition is to:

- capture the new obligation in section 7 ‘Maximum Demand Volumes’.

Four new definitions will be added to Schedule 1 - Interpretations and Definitions:

- MHHS Migration End Date
- MHHS Migration Period
- MHHS Migration Plan
- MHHS Migration Start Date

These definitions have been developed in collaboration with the REC MHHS drafting team to ensure alignment with the MHHS Design and associated REC legal text changes.

The legal text within the CSS Service Definition also refers to the Smart Meter Data Retriever (SMDR). This is an industry role that is being introduced under two approved industry changes to support the MHHS Design:

- R0044 - MHHS Programme Changes required to Central Switching Service
- Smart Energy Code (SEC) Modification Proposal 162 (MP162) 'SEC changes required to deliver MHHS'

The new definition under the REC, approved under R0044, points to the SEC definition which will be implemented under SEC MP162 in the June 2024 release. This change R0093, therefore has included the definition approved under for SEC MP162 in Schedule 1. This will then be updated via a housekeeping change once the definition is live in the SEC. R0044 will not be implemented until the MHHS Code drafting goes live, which is currently targeting March 2025.

7 SUMMARY OF IMPACT ASSESSMENT ACTIVITY

7.1 SERVICE PROVIDER IMPACT ASSESSMENTS

Throughout the impact assessment period the Code Manager and RECCo MHHS stakeholders engaged with the REC Service Providers. Solution refinement workshops and additional meetings supported the completion of the impact assessments.

A 15 Working Day (WD) Service Provider preliminary impact assessment (PIA) was requested from the CSS Provider and ERDS Providers on 04 and 06 April 2023, respectively.

Following a period of further solution development in collaboration with the CSS Provider, a 25 WD detailed impact assessment (DIA) was then requested from the CSS Provider on 04 September 2023.

A summary of the responses received can be found in here:

ERDS PROVIDER (PIA ONLY)	• Provided understanding on how CSS message volumes would be impacted as a result of MHHS migration processes from the ERDS perspective, in particular the timing and volume need to be taken into consideration. • For the successful processing of messages within the ERDS, there is an assumption that CSS will be able to process the volumes of messages required.

	• Confirmed that there are no software impacts for ERDS as a result of this change. • Supportive due to the assurance to ERDAs that there is no degradation of industry processes/updates • As this change does not include ERDS in its scope there are no ERDS costs. It was noted in the responses however that there will be associated MHHS cost impacts for ERDS Providers.
CSS PROVIDER	• At PIA, required that better understanding of volumes, peaks and troughs was needed to be able to fully assess impacts. • At DIA, confirmed that delivery of a plan to the Code Manager would not be required to ensure volumes would be managed and service levels maintained. • Agreed that engagement with the programme was necessary to understand the impact of MHHS migration on message volumes. • Costs were submitted to support the engagement and planning for the additional message volumes resulting from MHHS migration

The DIA response included an assessment of how the CSS Provider will engage with the MHHS Programme and input into the MHHS Migration Plan. However, this engagement activity did not appear to be aligned to the MHHS Migration workstream, whereby the MHHS 'Migration Thresholds Document' consultation phase concluded on the 11 October 2023. For this reason, the FTE and costs provided in the DIA have not been accepted and taken forward by the Code Manager.

The MHHS 'Migration Thresholds Document' can be found on the MHHS programme's website, Migration - MHHS Programme.

Although, a plan has been removed from the solution itself, the Code Manager and RECCo will continue to work with CSS Provider during MHHS implementation to enable successful maintenance of service levels throughout migration.

8 DELIVERY AGAINST CHANGE PROPOSAL PLAN

To date all activity has been completed within the planned timescales.

The Change Proposal Plan can be found here.

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9 KEY RISKS, ASSUMPTIONS, ISSUES AND DEPENDENCIES

9.1 RISKS AND ISSUES

No.	RISK	NOTES	MITIGATION
R0093.CR.R001	Potential risk of companies migrating MPANs to a new MHHS specific MPID, as part of an inter-company group Switch. This may increase volumes of Switches and lead to increased risk around gate closure		Closed – volumes to be managed through Change of Agent (CoA) processes

No issues have been identified.

9.2 ASSUMPTIONS AND DEPENDENCIES

No.	ASSUMPTION	NOTES	HOW/WHEN TO VALIDATE
R0093.CPP.A001	This change impacts CSS only and does not consider the impacts to other REC services, such as Electricity Enquiry Service (EES) and ERDS, impacted by MHHS migration		Closed - Validated during initial assessment
R0093.CR.A002	ERDS impacts and costs are out of scope of R0093	The Code Manager recognises that the MHHS Migration will result in associated costs to the ERDS Providers. These are being managed under MHHS Programme delivery for DNOs	Closed - Validated during solution development

No.	ASSUMPTION	NOTES	HOW/WHEN TO VALIDATE
R0093.CR.A003	SIT Non-Functional Requirements (NFR) testing may be required, by the MHHS Programme, to prove the ability to manage additional volumes of messages	This will be managed under the CSS Provider's operational activity	Closed - Validated during impact assessment
R0093.CR.A004	Using CoA messages (CSS00200) for migrating MPANs to MHHS has a lower complexity and risk than switching messages, as they will not impact gate closure processes	Volumes to be managed through CoA processes	Closed - Validated during impact assessment
R0093.CR.A005	Any CSS costs associated with the MHHS Migration Period will be addressed through the CSS Provider operational budget. There are no in-year costs incurred by the CSS Provider that need to be covered by R0093		Closed - Validated as part of the closure of the impact assessment period
R0093.CR.A006	The CSS Provider is and will continue to engage with the MHHS Programme		Closed - Validated during impact assessment
R0093.CR.A007	The CSS Provider will ensure that MHHS migration impacts to existing service levels are understood and volumes can be reported on		Closed - Validated during impact assessment

No.	ASSUMPTION	NOTES	HOW/WHEN TO VALIDATE
R0093.CR.A008	Any change to the 'Maximum Demand Volumes', captured in paragraph 7.3 of the CSS Service Definition, as a result of R0092 will not impact the obligation to be introduced by R0093	The solution for R0092 may, however, change the baseline of volumes upon which migration volumes would be added	Closed

No.	DEPENDENCY	NOTES	STATUS
R0093.CPP.D001	The MHHS Programme may require CSS to participate in the programme's systems integration testing (SIT)	The scope for Non-Functional Requirements (NFR) testing for MHHS Programme SIT is not currently available	Closed – the proposed solution approach means this dependency no longer applies to R0093. The CSS Provider will consider this as part of the operational requirements following implementation

10 PROPOSED IMPLEMENTATION DATE AND APPROACH

PROPOSED IMPLEMENTATION DATE	23/02/2024

PROPOSED IMPLEMENTATION APPROACH	BIG BANG

It is appropriate to ensure the legal text is implemented in time for the new REC financial year so that the requirement for any operational budget for FY2023/24 by the CSS Provider is provided for within the RECCo budget. The proposed solution requires implementation of legal text only and no implementation lead time over and above the Code Manager's standard release activity is required.

The Code Manager therefore proposes that the implementation date for R0093 is in the next available REC release following the Responsible Committee decision. This is targeted for the Technical Expert Panel meeting on 24 January 2023.

11 BUSINESS CASE ASSESSMENT

11.1 COSTS

There are no costs associated with the implementation of this change.

Any operational costs for the CSS Provider will be submitted by them under the annual budget processes in accordance with Clause 9 of the REC Main Body, or as otherwise agreed with RECCo.

11.2 BENEFITS

The benefits for this change are linked to the successful migration of MPANs to the MHHS Target Operating Model and the maintenance of business-as-usual Switching activity.

The Code Manager has not identified any benefits that are quantifiable that will be specifically delivered through R0093, but the change would bring about the following intangible benefits:

INTANGIBLE BENEFITS	BENEFITS DESCRIPTION
MHHS MIGRATION	That the CSS Provider can maintain service levels throughout the MHHS migration period is essential to the successful migration of MPANs to the new arrangements. A specific obligation for the CSS Provider within the REC will provide confidence and a clear expectation for REC Parties, the MHHS programme, RECCo and the CSS Provider themselves.
SWITCHING	That the CSS Provider can maintain service levels throughout the MHHS migration period is essential to ensure business-as-usual Switching by Consumers is not detrimentally impacted because of the migration of MPANs to the new arrangements. A specific obligation for the CSS Provider within the REC will provide confidence and a clear expectation for REC Parties and RECCo that Consumer interests are protected throughout the MHHS Migration Period.

11.3 COST BENEFIT ANALYIS SUMMARY

R0093 will provide confidence and a clear expectation that the CSS Provider will maintain Switching service levels throughout the MHHS migration period. The CSS Provider will be expected to deliver this as part of their operational activity through existing and any future engagement with the MHHS programme as a central services participant of the programme. There are no implementation costs associated with this change. Operational costs have not currently been determined by the CSS Provider and will be submitted through the RECCo operational budget process.

12 CASE FOR CHANGE

The Code Manager considers that there is a case for change to implement this Change Proposal, on the basis that:

- the proposed solution is fully formed and appropriately resolves the problem statement;
- the proposed solution in obligating the CSS Provider to maintain service levels throughout the MHHS Migration Period, during which there will be increased message volumes, will provide confidence and a clear expectation that both business-as-usual Switching and MHHS migration activity can be processed successfully;
- the proposed solution protects Consumer interests by maintaining the operation of the retail energy market throughout the MHHS Migration Period; and
- a positive business case can be made, as set out in section 11 of this report.

13 CODE MANAGER'S RECOMMENDATION

Based on the assessment in section 11 and 12 of this report, the Code Manager considers a positive business case can be made for implementing this solution. The Code Manager therefore recommends that the Technical Expert Panel:

- **APPROVE** the proposed change solution;
- **APPROVE** the proposed implementation approach; and
- **APPROVE** the proposed implementation date of 23 February 2024.

14 CONSULTATION PLAN AND NEXT STEPS

The consultation on this Preliminary Change Report for R0093 will be published on the REC Portal on **01 December 2023** and close on **15 December 2023**.

Following consultation, the Code Manager will produce an updated version of this change report (referred to as the Final Change Report). This will include the outcome of the consultation, setting out a summary of the consultation submissions and the Code Manager's response.

The Final Change Report will be issued to Technical Expert Panel to make its determination.

15 APPENDIX

CHANGE PROPOSAL	Link
LEGAL DRAFTING	Link
SOLUTION DEVELOPMENT REPORT	Link

RELATED CHANGES	R0092 - DCC Service Level Agreements for the Switching Incentive Regime R0044 - MHHS Programme Changes required to Central Switching Service Smart Energy Code (SEC) Modification Proposal 162 (MP162) 'SEC changes required to deliver MHHS'
OTHER LINKS	Migration - MHHS Programme

16 GLOSSARY

This glossary details two different sets of terms:

- The first table includes terms and definitions from the REC
- The second table includes terms and definitions from the MHHS Programme which are taken from the MHHS Glossary on the Programme Collaboration Base

Further terms relating to MHHS can be found within MHHS Programme Glossary - Link

REC TERM	DEFINITION
Central Switching Service (CSS)	means the Systems and processes provided or procured by the Switching Operator for the purpose of providing the Address Management Service and the Registration Service.
CSS Provider	means the DCC when performing functions under or in relation to this Code (but always excluding its functions under the Smart Energy Code and its roles as CSS Systems Integrator, SI Provider and Switching Operator), including in respect of the Central Switching Service and including in effecting the design, build and testing of any System that will allow it to perform functions under this Code after the CSS Go-Live Date. This role is the CSS Procurer and Manager function as described in the E2E Data Migration Plan, E2E Integration Plan, E2E Post Implementation Plan, E2E Testing Plan, E2E Transition Plan: Implementation Approach and E2E Transition Plan: In-Flight Switches Approach.
Data Specification	means the document of that name forming part of the Technical Specification.
Electricity Supplier	Means a person holding an Electricity Supply Licence.
Electricity Retail Data Agent (ERDA)	Means a provider of a DNO's Electricity Retail Data Service.
Electricity Retail Data Service (ERDS)	Means the electricity registration services provided under this Code to support the provision of electricity retail data to the CSS and other services.
Market-wide Half Hourly Settlement (MHHS)	Market Wide Half-Hourly Settlement will utilise the ability of smart meters to record a customer's usage during each half hour period to move domestic and small non-domestic customers to half-hourly settlement. Medium and larger non-domestic consumers have been settled half-hourly since BSC modification P272.

REC TERM	DEFINITION
Metering Point Registration System (MPRS)	Means the System used or procured by each DNO in order to provide the Electricity Retail Data Service in accordance with the REC and / or the Supplier Meter Registration Service in accordance with the BSC.
MHHS Migration Period	New term to be implemented under R0093: means the period between the MHHS Migration Start Date and the MHHS Migration End Date
MHHS Migration Plan	New term to be implemented under R0093: means the plan as defined in the Balancing and Settlement Code and any associated documentation to include the migration volumes set by the MHHS Programme.
Smart Meter Data Retriever (SMDR)	Means the new industry role that is being introduced into the REC through R0044. The role is known in the Smart Energy Code and MHHS programme as Meter Data Retriever.
Smart Meter Data Service Provider (SMDSP)	Means the DCC in its role as provider of the Smart Meter Data Service.
Supplier Agent	Means a Data Aggregator, a Data Collector or a Metering Equipment Manager.
Switch Request	Means a request from a Gaining Supplier to initiate a Switch.
Switching Operator	Means the DCC in performing the role of managing the co-ordination of the CSS Provider and the other Switching Data Service Providers, including the mechanisms for Users to report incidents and access service management support, from the CSS Go-Live Date.

MHHS TERM	DEFINITION
Data Service	Generic and collective reference for the MHHS Target Operating Model services relating to data service provision - includes the Smart Data Service, Advanced Data Service and Unmetered Data Service.
Market-wide Half Hourly Settlement (MHHS)	Market Wide Half-Hourly Settlement will utilise the ability of smart meters to record a customer's usage during each half hour period to move domestic and small non-domestic customers to half-hourly settlement. Medium and larger

MHHS TERM	DEFINITION
	non-domestic consumers have been settled half-hourly since BSC modification P272.
MHHS Migration	Moving the servicing of MPANs from the current Market Roles to servicing them under the TOM Services (CCDG Definition, captured in the Migration Working Group Terms of Reference).
MHHS Migration Period	Migration Period The period denoted by the Programme as occurring between the M11 and M15 milestones.
MHHS Milestone M8 'Code changes delivered'	This is the milestone at which the consequential changes, required to the industry codes to enact the MHHS Design, will be implemented. The date will be determined and governed by the MHHS programme.
MHHS programme	The MHHS programme is the mechanism under which the governance and implementation of changes to the market arrangements are being managed.
MHHS supplier agents	Supplier agents that can carry out certain functions related to settlement on behalf of suppliers, including data collection, data aggregation and meter operation
MHHS Target Operating Model (TOM)	The Target Operating Model is the settlement arrangements designed by the Design Working Group (DWG), and further developed by the Code Change and Development Group (CCDG) and the Architecture Working Group (AWG) that will facilitate Market-wide Half Hourly Settlement.