RETAIL ENERGY CODE

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

CHANGE REPORT

R0070 – PROVISION OF ENDURING TEST ENVIRONMENTS

CHANGE REPORT	FINAL
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RESPONSIBLE COMMITTEE	CHANGE PANEL	CHANGE PATH	SELF GOVERNANCE
PRIORITY STATUS	MEDIUM	URGENCY	STANDARD

DEADLINE FOR ALTERNATIVE CHANGE PROPOSALS	16/01/2024

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CHANGE OVERVIEW

This Change Proposal seeks to introduce updates into the REC, to ensure the relevant testing responsibilities are mandated. The introduction seeks to include the provision of enduring Test Environments and Test Data for use by REC Parties, when making necessary system changes for REC Change Proposals or internal system updates.

	High Impact: N/A
	Medium Impact: Central Switching Service, Switching Operator
	Low Impact: N/A

RESPONSIBLE COMMITTEE DECEISION

On 05 March 20244, the Change Panel voted to **APPROVE** R0070 for implementation on 28 June 2024.

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BACKGROUND

1 SUMMARY

Central Switching Service (CSS) Test Environments and Test Data were available for the launch of the CSS arrangements (REC V3.0) in July 2022. Currently the REC does not require the Switching Operator (SO) to provide the enduring Test Environments and Test Data, for use by CSS Users when making necessary system changes for REC Change Proposals or internal operational system updates.

Enduring Test Environments are needed for ongoing live operations. Therefore, changes are required to REC documentation to ensure responsibilities on the CSS, the SO, the Switching Data Service Providers (SDSP) and on CSS Users regarding the enduring provision and use of Test Environments and Test Data are clearly defined.

The proposed solution:

- Introduces new requirements into Schedule 5 – Change Management
- Introduces new requirements into Schedule 25 – Central Switching Service
- Amends existing requirements in Schedule 26 – Switching Service Management Schedule
- Amends existing requirements in Technical Specification Document – Switching Operator (SO) Service Definition

Two new related Category 3 documents have been drafted, which accompany the main legal text amendments above – a Test Data Management Plan and an Environment Management Plan. These will be introduced via the standard Category 3 change process at the appropriate time to best align with the implementation of R0070, if approved.

2 PROBLEM STATEMENT

For specific types of changes, industry system testing will be required to ensure the end-to-end Switching processes will work as expected following implementation. If Test Environments and Test Data are not available, CSS Users will not be able to complete testing to confirm their systems will operate correctly in the live environment.

The REC currently does not define specific obligations on Service Providers regarding enduring test systems and Test Data for Switching processes. The lack of specific obligations may impact the availability of appropriate Test Environments. This could impact the progression of improvements to Switching processes that require a technical change.

3 USER STORIES

REF.	USER STORIES
MARKET PARTICIPANT USER STORIES	
M1	As a CSS User, I want access to a CSS Test Environment to enable me to test my systems and processes ahead of the implementation of complex or significant changes, so that I can identify any issues prior to go-live.
M2	As the SO, I want clarity on the obligations placed on me regarding the provision and maintenance of the CSS Test Environment and data, so that I can meet my obligations and provide CSS Users and Service Providers with access to appropriate Test Environments.
M3	As a Switching Data Service Provider (SDSP), I want clarity on the obligations placed on me regarding the provision and maintenance of Test Environments and data, so that I can meet my obligations to test CSS changes.
M4	As a Switching Data Service Provider (SDSP), I want access to as CSS Test Environment to enable me to test my systems and processes ahead of the implementation of complex or significant changes, so that I can identify any issues and address prior to go-live.

PROPOSAL

4 SUMMARY OF ANALYSIS UNDERTAKEN

The draft legal text changes for R0070 were developed between RECCo and the REC Code Manager, to provide the key principles for maintenance and management of test environments and test data for the Switching service, based on the approach agreed during the Switching Programme.

Through 2023, a Detailed Impact Assessment (DIA) was undertaken by DCC (Data Communication Company), to review the legal text. To carry out that review, the two supporting Category 3 documents were drafted (Test Data Management Plan and Test Environment Plan) and reviewed through workshops between DCC and the REC Code Manager, including development of a Responsible, Accountable, Consulted, and Informed (RACI) matrix to confirm responsibilities on all involved parties. Additionally, provision has been included for initiating and delivering periodic data refreshes.

The full DIA concluded in December 2023.

Impact Assessments have been carried out with SDSPs and with other CSS Users. See Section 7 below for details.

Following the publication of the Preliminary Change Report, a standard industry Consultation was issued on 26 January 2024. See Section 11 below for details and a summary of responses.

5 PROPOSED SOLUTION

Solution overview

The solution sets out the responsibilities on the relevant REC stakeholders, to ensure that appropriate test environments are maintained and available when required, including population with the necessary test data. The scenarios covered include testing of approved Change Proposals, but also testing of other required system changes by the CSS, SDSPs or other CSS Users.

Document changes

In particular, the legal text changes include:

- Schedule 25 – Central Switching Service. New section 10 - SO and CSS Provider responsibilities for test environments and data;
- Schedule 26 – Switching Service Management. New paragraphs 13.3 (j) and (k) – SDSPs shall maintain their own test environments and test data;
- Switching Operator (SO) Service Definition. New paragraph 1.14 – SO shall ensure functionality (including simulators) is correctly provided, and access can be requested;
- Schedule 5 – Change Management. New paragraph 27.3 – CSS Users request environment access via Switching Service Request; and
- Interpretations and Definitions – New and amended definitions to support the provisions, and removal of some redundant definitions.

The detail of how the high-level principles in the legal text will be delivered is described in two Category 3 documents that have been drafted alongside this Change Proposal R0070 to ensure consistency. As previously noted, Category 3 documents have a dedicated change process, and the Environment Management Plan and the Test Data Management Plan will be submitted into that process at the necessary time to align with implementation of R0070. Versions were included for information and comment in the Impact Assessments.

Processes

Use of Test Environments and Test Data and any other testing requirements for individual Change Proposals will be proposed, impact assessed and approved through the standard REC Change Process.

The newly provided processes under R0070 are:

- Periodic SDSP data refreshes – when necessary (assumed to be approximately every two to five years), a data refresh will be undertaken. This will be proposed by the Switching Operator, reviewed by RECCo and the Code Manager, and impact assessed with affected SDSP stakeholders before approval by the Technical Expert Panel. A lead time of at least 6 months will be set between approval and the data refresh being undertaken wherever possible.

- Requesting access to Test Environments and simulators – CSS Users that need to access CSS, a Test Environment will be able to request such access via the standard Switching Service Request method.

Parties

R0070 places obligations on the Switching Operator, the CSS Provider and SDSPs. In summary (refer to the legal text and the Category 3 documents for details):

- Switching Operator - Ensuring the CSS environments are available to support testing requirements; managing any required connection by parties to CSS environments and providing simulators to support External Testing and the testing of Operational and Major Releases.
- CSS Provider - Provide and maintain the CSS environments and support testing activities.
- SDSPs – Maintain the capability to establish their own environments and data sets.

Other CSS Users do not have specific obligations placed on them by R0070 but may be required to participate in testing of approved REC Change Proposals. Those activities would be managed through the assessment and implementation of the individual Change Proposals and Releases.

6 DRAFT LEGAL TEXT

The legal text changes to deliver the proposed solution to R0070 can be found on the Change Proposal Page on the REC Portal here.

As previously noted, the legal text aims to describe the principles of the responsibilities and obligations on the relevant REC Parties. The detail of how these obligations are met, including how Test Environments (including simulators), and Test Data, are managed and used, will be contained in the Category 3 documents.

7 SUMMARY OF IMPACT ASSESSMENT ACTIVITY

7.1 SERVICE PROVIDER IMPACT ASSESSMENTS

Throughout the impact assessment period, the Code Manager engaged with the REC Service Providers. Solution refinement workshops and document reviews supported the completion of the impact assessments.

A 15 Working Day (WD) Service provider Preliminary Impact Assessment (PIA) was requested from the CSS Provider on 03 February 2023. An extended Detailed Impact Assessment (DIA) was requested on 14 August 2023, and concluded in December 2023. The DIA period included the drafting and review of the Category 3 documents.

A summary of the response received can be found in the table below.

CSS DIA	A substantial portion of the work to deliver R0070 has been completed through the DIA in the drafting of the Category 3 documents. The main activity to deliver the R0070 solution will be to make changes to the SO Test Data Tool to support ongoing Test Data management, encompassing changes to: • the Test Data Tool data structures are required to allow data allocation management across all environments for all party types, within a single instance of the tool. • allow data allocations to be distributed to all party types (currently only Suppliers are supported, and the data structure is based on support for the Switching Programme Unit Integration Testing (UIT). • provide the capability for any party to feed back to the SO on any data used in their environment. • Implement reporting within the Test Data Tool on data usage and availability, to allow the SO to identify gaps in available data to support testing. The SO has set out a timeline to implementation of 80 WD including mobilisation.

We issued an Impact Assessment to all SDSPs commencing on 20 November 2023. We received one non-confidential response. A summary of the response can be found in the table below.

DISTRIBUTION NETWORK OPERATOR	• The respondent did not identify any further requirements that have not been addressed through the solution or legal text, including the two draft Category 3 documents. • They also did not identify any further obligations that are not supported by existing REC provisions or in the draft legal text for this change. • The respondent expressed their belief that the change will allow the integrity of industry changes to be maintained but did not identify any cost savings. • They also noted that at this point, they have not identified any significant costs associated with this change. • The respondent did not identify any impacts around the provisions for the period data refresh.

The Gas Retail Data Agent (GRDA) did not submit an Impact Assessment response within the deadline of 3 January 2024. However, they subsequently submitted a set of questions seeking more detail on the R0070 solution. The Code Manager responded in writing and engaged with the GRDA to discuss the points raised and how to best address them.

The outputs from this engagement have resulted in a minor change to the legal text. More detail can be found in Section 12 of this report.

7.2 REC PARTY IMPACT ASSESSMENTS

A REC (and Non-REC) Party 15 WD Impact Assessment was requested on 24 November. The parties targeted were all CSS Users, to which we received one non-confidential response.

A summary of the response received can be found below.

DISTRIBUTION NETWORK OPERATOR	• The respondent supported the solution. • They noted the activity that may be required to connect to a Test Environment including obtaining certificates. They noted the activity that would be required to undertake a data refresh, acknowledging the specific criteria would likely be determined at the appropriate time. • They noted that resources may be restricted due to current and ongoing testing for the Market-Wide Half Hourly programme.

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.

9 KEY RISKS, ASSUMPTIONS, ISSUES AND DEPENDENCIES

9.1 DEPENDENCIES

No.	DEPENDENCY	NOTES	STATUS
1	Approval of Category 3 documents	The Test Data Management Plan and the Environment Management Plan documents should be approved as Category 3 documents within the REC Baseline Statement to coincide with implementation of R0070.	Open – the Category 3 change process will be initiated at the appropriate time to coincide with the R0070 implementation date.

10 PROPOSED IMPLEMENTATION DATE AND APPROACH

PROPOSED IMPLEMENTATION DATE	28/06/2024

PROPOSED IMPLEMENTATION APPROACH	BIG BANG

The Switching Operator has provided a plan for design and build of the R0070 solution, which is able to meet the June 2024 release. The Category 3 documents will be submitted into the change process at the appropriate time to be implemented together with R0070.

11 SUMMARY OF CONSULTATION RESPONSES

A consultation was circulated on 26 January 2024 to obtain views on the Preliminary Change report. One response was received, from a Distribution Network Operator (DNO). This can be found here.

The key themes from these responses have been summarised and set out below. Any relevant responses from our engagement with the GRDA has also been noted below.

11.1 SUMMARY OF RESPONSES

11.1.1 COMMENTS ON THE SOLUTION AND LEGAL TEXT

The consultation respondent did not identify any issues with the legal text and agreed that the proposed solution resolves the problem statement.

11.1.2 BENEFITS RELATIVE TO IMPLEMENTATION AND OPERATIONAL COSTS

The consultation respondent highlighted that whilst they do not anticipate any benefits directly to their organisation because of the change, they believe that there will be a benefit to the industry as a result of assuring the integrity of systems. Similarly, the respondent responded “yes” when asked if the Change Proposal would provide adequate resources for Stakeholders, other than the CSS to undertake testing.

The respondent also explained that on operational costs, that they will incur additional costs, however since the frequency of testing will be dictated by factors outside of their control, they will be unable to apply a cost to this.

11.1.3 IMPLEMENTATION APPROACH AND DATE

The consultation respondent agreed with the proposed implementation date and approach.

12 SUMMARY OF AMENDMENTS MADE FOLLOWING CONSULTATION

As noted in section 7.1 above, we received comments on the R0070 solution from the GRDA between the Impact Assessment and Consultation stages. In discussion with the GRDA, we identified an improvement to section 13.3 (j) of the legal text and this has been included in this Final Change Report as V3.0. There was also a suggestion to change 13.3 (k), on the basis that how test data is maintained outside of a testing phase is up to an individual organisation. However, we are proposing that the original text be retained, because there is a requirement for the data sets to be maintained, as they will be gradually used through testing exercises.

DOCUMENT	SECTION	AMENDMENT	REASON
Schedule 26	13.3 (j)	Clarify that SDSPs are expected to be able to make a test environment(s) *available for use* as required	The previous wording could have been interpreted to mean that a test environment(s) should be *permanently* stood up, which was not the intent.

13 BUSINESS CASE ASSESSMENT

13.1 COST BENEFITS ANALYSIS

	DESIGN/ DEVELOPMENT COSTS	IMPLEMENTATION COSTS	ONGOING OPERATIONAL COSTS
[PARTIES]	£0	£0	£0
[SERVICE PROVIDERS]	£54,824	£0	£0
[CODE MANAGERS]	£0	£0	£0

REC BUDGET APPROVAL SECURED FOR CENTRAL SYSTEM COSTS	11/01/2024

INTANGIBLE BENEFITS	BENEFITS DESCRIPTION
Lack of CSS Testing Provision	Without access to maintained Test Environments, populated with appropriate Test Data, changes to Switching systems and procedures could not be tested and assured. This could lead to significant and material errors in Switching processes, impacting consumers and all CSS Users

13.2 COST BENEFIT ANALYSIS SUMMARY

It is not possible to quantify the benefits realised by implementation of R0070, as the benefits will be derived from the ability to robustly test future approved changes to the CSS systems and processes.

However, given the fundamental role the systems play in the retail market operations, it is imperative that changes to the Central CSS systems, and the associated systems and processes at SDSPs and other CSS Users, are delivered accurately and to the required specifications.

14 CASE FOR CHANGE

14.1 SELF-GOVERNANCE

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 will protect consumers interests by preventing significant and material errors in the Switching process,
- the proposed solution enables a platform for CSS Users to identify any issues associated with new functionalities prior to go-live of those functionalities.
- the proposed solution will benefit the industry in assuring the integrity of the systems, as highlighted in a consultation response.

15 CODE MANAGER'S RECOMMENDATION

Based on support from consultation responses, and on the assessment in Section 13 and 14 of this report, the Code Manager considers a positive business case can be made for implementing this solution.

The Code Manager recommends that the Change Panel

- **APPROVE** the proposed change solution;
- **APPROVE** the proposed implementation approach; and
- **APPROVE** the proposed implementation date of 28 June 2024.

16 RESPONSIBLE COMMITTEE DECISION

This report was discussed at the REC Change Panel meeting on 05 March 2024.

The REC Change Panel voted to:

- **APPROVE** the proposed change solution;
- **APPROVE** the proposed implementation approach; and
- **APPROVE** the proposed implementation date of 28 June 2024.

17 APPENDIX

CHANGE PROPOSAL	Link
LEGAL DRAFTING	Link
CONSOLIDATED IMPACT ASSESSMENT RESPONSES	Link
CONSOLIDATED CONSULTATION COMMENTS AND CODE MANAGER'S RESPONSES	Link

18 GLOSSARY

TERM	DEFINITION
Central Switching Service	means the Systems and processes provided or procured by the CSS Provider for the purpose of providing the Address Management Service and the Registration Service.
Retail Risk	means a risk that retail energy consumer outcomes, and the effectiveness of the retail market are measurably and significantly degraded by a failure by a REC Service User or REC Service Provider to meet the objectives, standards, and core processes under this Code.
Test Environments	means the testing environments as described in the E2E Testing Plan.
Test Data	means data to be used for testing purposes during a) a Test Phase, as further described in the relevant Test Plan for that Test Phase; or b) a Service Provider Test Phase, as further described in the relevant Service Provider Test Plan.

TERM	DEFINITION
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.
Switching Data Service Provider	means the CSS Provider, the SMDSP (in respect of the services provided under the Smart Energy Code), the Enduring Change of Supplier Service Provider (in respect of the services provided under the Smart Energy Code), the Gas Retail Data Agent, the Electricity Retail Data Agents, and the Enquiry Service Providers.
Gas Retail Data Agent	means the provider of a Gas Transporter's Gas Retail Data Service.
Market Wide Half Hourly Programme	means the mechanism under which the governance and implementation of the changes to the market arrangements for the Market Wide Half Hourly Settlement (MHHS) are being made, that 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 consumers to half-hourly settlement.