Data Communications Company

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Test Data Management Plan

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Revision history

Revision date	Summary of changes	Version number
01-09-2023	Initial Draft	0.1
15-09-2023	Content added to reflect discussions at the RTS/DCC/NC workshop (held on 12/09/23) and comments received from RTS on 12/09/23.	0.2
26-09-2023	Table 1 Test Data Management RACI Model has been added following discussion at the RTS/DCC/NC workshop held on 25/09/23.	0.3
05-10-2023	Updated following feedback from the REC Code Manager received on 03/10/23	0.4
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The document was issued to the following representatives at each review cycle:

REC Code Manager: *Beth Brown, Gemma Dixon, Mark Pearce.*

DCC: *Kit Ho; Robbie McMillan, Edgar Mokwunyei, Mark Riley, Marlene Gibson-Skinner, Natasha Tomic, Gordon Wallace.*

References

ID	Title
[1]	Schedule 25 - Central Switching Service
[2]	Schedule 26 - Switching Service Management

1. Executive Summary

The Test Data Management Plan describes the arrangements for the provision, identification, allocation, and distribution of Test data to provide ongoing support for testing for the Switching ecosystem. The Test data arrangements are described for the PIT, SIT, UIT and PreProd environments.

The roles and responsibilities for Test data management are described for:

- REC Code Manager
- Switching Operator
- CSS Provider
- Switching Data Service Providers
- Other CSS Users

Test data is required across the Switching environments to support the following types of testing:

- Testing of CSS Operational Releases
- Testing of REC Change Proposals, referred to throughout this document as testing of Major Releases
- External Testing, either of new market entrants or Maintenance of Qualification of parties as a result of a significant change either to CSS or to a party system

A summary of all data types within the scope of Switching testing is provided. For each test environment, the general Test data usage is described, including the expectations for connection to the environment by REC Parties. Test data will be in place to support External Testing and testing of Operational and Major Releases. There is no provision of Test data to support Sandbox testing.

REC Parties will load Test data, in accordance with the requirements of this Test Data Management Plan, into the relevant test environments as described in the Environment Management Plan. The general responsibility for managing the alignment of Test data across the Switching environments will sit with the Switching Operator. This will include the identification, allocation, and distribution of logical Test data sets to REC Parties in support of planned testing.

The arrangements for refreshing Test data across the Switching ecosystem are described, making provision for a coordinated Production data cut by REC parties as required.

2. Roles and Responsibilities

Please refer to the REC Main Body and the Schedules 25 and 26 to understand your Party obligations under the REC.

2.1. Data for DCC Service Providers

The Switching Operator is responsible for ensuring that the CSS environments (Registration, Address, and Reporting Services) as described in the Environment Management Plan are populated with Test data that supports:

- Operational Release testing
- Major Release testing
- External Testing.

The CSS Provider provides A and B Stream environments for System Integration Test (SIT) and User Integration Test (UIT).

The Switching Operator is responsible for the delivery of all data to populate the Central Switching Service (CSS) environments. This includes all of the types of data described in Section 0

Test Data Types.

The Switching Operator will coordinate the management and usage of data in the CSS environments.

2.2. Data for CSS Provider

The CSS Provider will populate the CSS environments as requested by the Switching Operator in accordance with the requirements set out in this Test Data Management Plan.

2.3. Data for Switching Data Service Providers

The Switching Data Service Providers are required to provide a test environment capable of integrating with the CSS environments, as described in the Environment Management Plan. The Switching Data Service Providers should populate these environments with a Test data set that meets the requirements set out in this Test Data Management Plan.

Integrated testing between CSS and Switching Data Service Providers is expected to occur only as a result of a REC Change Proposal. Sandbox testing by Switching Data Service Providers, integrated with CSS, is not supported.

2.3.1. Data for ERDA and GRDA

Gas Registration Data Authority (GRDA) data resides within the UK Link system. GRDA is required to provide a Test data set that meets the requirements described in this Test Data Management Plan.

Electricity Registration Data Authority (ERDA) data resides within the MPRS system within each DNO and iDNO. It is expected that testing for REC Change Proposals involving ERDA would require only a subset of the DNOs/iDNOs to participate, and it is expected that this will be defined in agreeing the REC Change Proposal impact. ERDAs participating in testing for a REC Change Proposal are required to provide a Test data set that meets the requirements described in this Test Data Management Plan.

2.3.2. Data for Smart Metering

Smart Metering Data resides within the Data Service Provider (DSP) system. The DSP provides A and B Stream environments for System Integration Test (SIT) and User Integration Test (UIT).

It is expected that DSP environments contain a subset of data aligned to the data in CSS. The data in DSP for Switching will be a discrete subset of data from that used for Smart Metering. In addition, DSP may be requested to provide Comms Hub Link Data to CSS to facilitate testing of this interface.

2.3.3. Data for EES and GES

Data for the Electricity Enquiry Service (EES) resides within the EES Switching environments. EES is required to provide a test data set that meets the requirements described in this Test Data Management Plan.

The Gas Enquiry Service (GES) is essentially a view into the UK Link data, therefore the data requirements for GES are included within, and met by, the data provision for GRDA.

2.4. Data for other CSS Users

CSS Users (other than Switching Data Service Providers) are required to provide suitable Test data, in accordance with the requirements of this Test Data Management Plan, where a REC Party is requested to undertake integrated testing with CSS as a result of a REC Change Proposal.

For testing as a result of a REC Change Proposal, the Test data requirements will be agreed as part of the Change Proposal.

2.5. Data Alignment

Test data is required to be aligned across REC Party systems to allow coordinated integrated testing between party systems, should this be required as a result of a REC Change Proposal.

During the Switching Programme, this was achieved through coordinated Production data cuts across industry, with this data being used to populate the relevant test environments of each REC party participating in the testing.

A coordinated set of Test data will be made available to support integrated testing for Switching and this data will be derived from Production data cuts.

For CSS and for the Switching Data Service Providers, these Production data cuts are to be used to support any integrated testing required as a result of a REC Change Proposal. This data is to be retained until such time as further data is made available under the arrangements described in Section 7 Data Refresh.

In addition, the CSS environments will be populated with the new data cut, and, once implemented, this will be used for all CSS testing, including External Testing, and any testing of Operational Releases, until data is refreshed as described in Section 7 Data Refresh.

CSS Users other than Switching Data Service Providers do not have an obligation to maintain aligned data but may be requested to populate a test environment for a Major Change or a Major Release.

2.6. Responsibilities of Parties

This section details the responsibilities of the REC Parties in relation to Test data and the key activities which are to be undertaken.

The tables follow the RACI model matrix used for identifying roles and responsibilities:

- R = Party who is Responsible for carrying out the activity.
- A = Party who is ultimately Accountable to ensure that the activity is carried out appropriately.
- C = Parties who are Consulted for input or advice.
- I = Parties who are Informed of an activity for reference purposes.

Activity	Switching Operator	CSS Provider	REC Code Manager	Switching Data Service Providers	CSS Users (other than SDSPs)
Populate CSS test environments (as described in the Environment Management Plan) with Test data as defined in this Test Data Management Plan	A	R	I	I	I
Populate SDSP test environments (as described in the Environment Management Plan) with Test data as defined in this Test Data Management Plan	I	I	I	A, R	I
Identify and allocate test data for Major Releases	R	I	A	I	I
Identify and allocate test data for Operational Releases	A, R	I	I	I	I
Identify test data for External Testing	A, R	I	I	I	I
Add data for External Testing into Counterparty Simulator	A, R	I	I	I	I
Identify and allocate test data where this is requested by an SDSP	A, R	I	I	C	I
Distribute test data to CSS Users using the Test Data Tool	A, R	I	I	I	I
Create additional test data where required * * Note that the creation of additional test data will be an exceptional circumstance and will only be at low volumes	A, R	I	I	R	I
Populate database for Test Data Tool	A	R	I	I	I
Initiate a general data refresh as described in Section 7 Data Refresh	A, R	I	C	I	I

Table 1 Test Data Management RACI Model

Activity	Switching Operator	CSS Provider	REC Code Manager	Switching Data Service Providers	CSS Users (other than SDSPs)
Initiate a REC Change Proposal specific data refresh * * Note that a Data Refresh request could be initiated by a any party	C	I	A, R	R	I
Take Production data cut in response to a general data refresh as described in Section 7 Data Refresh * * Note that the participants undertaking a data cut may vary as described in Section 7.1 Data Refresh Participants. SO is accountable for CSS data cut, SDSP accountable for its own systems.	A	R	I	A, R	I
Take Production data cut in response to a REC Change specific request for data refresh * * Note that the participants undertaking a REC Change specific data will be specified in the REC Change Proposal. SO is accountable for CSS data cut, SDSP accountable for its own systems.	A	R	I	A, R	R
Coordinate implementation of Production data cut into test environments (CSS, SDSP) and Test Data Tool for a general data refresh	R	R	A	R	I
Coordinate implementation of Production data cut into test environments (CSS, and Test Data Tool) for a REC Change specific request for data refresh * * Note that the participants undertaking a REC Change specific data will be specified in the REC Change Proposal	A	R	I	I	I
Coordinate implementation of Production data cut into test environments (SDSPs) for a REC Change Proposal specific request for data refresh * * Note that the participants undertaking a REC Change Proposal specific data cut will be specified in the REC Change Proposal	I	I	R	A, R	I
Download test data allocations from Test Data Tool	I	I	I	A, R	I

3. Test Data Types

The CSS test data comprises of:

- Domain Data
  - Switching Domain Data (SDD).
  - Market Domain Data (MDD).
- RMP Data
  - Associations (Electricity Only).
  - Asset Ownership MAP Data.
  - CommsHubLink Data.
- Retail Energy Location Data.
- Registration Data
  - Active Registration Data.
  - Supplier Arranged Appointments.

3.1. Market Domain Data (MDD)

Market Domain Data (MDD) is the repository of reference data which includes market roles and companies performing the market roles and also the mapping of company MPIDs to market roles. RECCo is responsible for the coordination of MDD for Switching.

Whenever a test data set is deployed for use into a CSS environment, the Switching Operator will document the Market Domain Data at that point in time. The test data is the test environments is static in the sense that there is no change to the REC parties included, other than for new market entrants for External Testing. Therefore, there is no requirement to support ongoing maintenance of Market Domain Data in the test environments, for example through the RECCo CSS Domain Data interface. Where a new market entrant requires its Market Participant Id (MPID) to be added to CSS, the Switching Operator will arrange for CSS to be updated.

3.2. Switching Domain Data (SDD)

The Switching Domain Data (SDD) is the reference data held in CSS used to drive Switching Behaviour within CSS e.g., Objection Windows, Minimum Switch Periods, Standstill Durations. SDD also includes non-working calendar dates.

RECCo is responsible for the provision of SDD, and the SDD is expected to be static in the test environments, unless a parameter changes as a result of a REC Change Proposal.

3.3. RMP Data

The RMP data will include the MPxN, network provision MPID ((i)DNO/Gas Distributor), RMP Status values, MPL and REL address data, CommsHubLink Device Indicator, Asset Ownership MAP data and Electricity Associations.

For RMP data, the mastership of the data belongs to GRDA and ERDA.

3.3.1. Electricity Association Data

The association data lists the associated secondary MPANs linked to the primary MPAN (Also referred to as 'related MPANs').

3.3.2. Asset Ownership MAP Data

The Asset Ownership MAP Data lists the MPIDs fulfilling MAP Market Roles, associated with each MPxN.

3.3.3. Comms Hub Link Data

The Comms Hub Link Data is a unique identifier aligned to DCC Smart Metering. The Comms Hub Link Data is used to identify dual fuel data, having multiple MPxNs of different fuel types with the same Comms Hub Device Id.

3.3.4. Retail Energy Location Data

Retail Energy Location (REL) data is standardised addressing for each MPxN based on use of the CSS Address Service. The REL contains address elements and matching data.

3.4. Registration Data

Registration Data will include the MPxN, the Registration ID, to and from dates for the Registration, the Registration Status, Supplier and Shipper MPIDs, the Supplier Start Date, the Domestic Premises Indicator and Supplier Arranged Appointment information. From the point of Go Live the Registration data will include active, in-flight, and prior registrations.

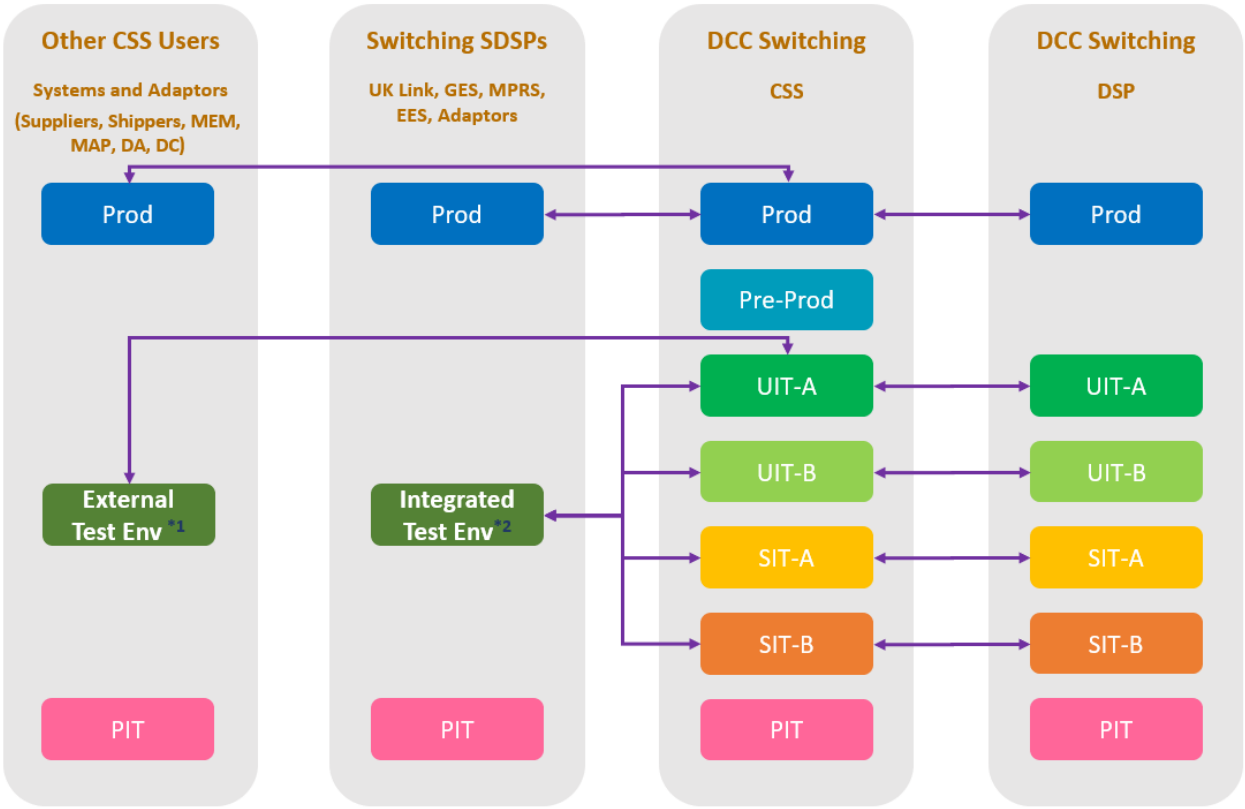
For registration data, the data mastership belongs to the CSS.

3.4.1. Supplier Arranged Appointments.

Supplier Arranged Appointments provide the MPIDs fulfilling Agent Market Roles with the from and to dates associated with the MPxN and are provided to CSS by ERDA and GRDA.

4. Test Environments Data Approach

This section describes, for each of the environments, the approach to population of the environment with test data to support ongoing testing requirements. Figure 1: Switching Environments below shows the environments in scope for REC parties.



*1 Other CSS Parties are only obligated to have a PROD environment but will need a test environment for Market Qualification and are expected to have a PIT environment for internal testing.

*2 SDPS are obligated to have at least one integrated test environment. This can only be connected to one CSS test environment at any time.

Figure 1: Switching Environments

4.1. PIT

REC Parties who connect to CSS are expected, but not obligated, to have a Pre-Integration Test (PIT) environment, where the party can test their functional and non-functional requirements. As such, all REC Parties are responsible for defining and providing their own test data to support PIT.

4.2. SIT-A

The CSS SIT-A environment is used primarily for testing of Operational Releases by the Switching Operator.

The CSS SIT-A environment will be populated with a set of test data derived from a CSS Production data cut. This data may be refreshed as described in Section 7 Data Refresh.

Switching Data Service Providers are expected to populate any environment capable of connection to CSS with this same baseline data set.

4.3. SIT-B

The CSS SIT-B environment is used primarily for testing of Major Releases.

The CSS SIT-B environment will be populated with a set of test data derived from a CSS Production data cut. This data may be refreshed as described in Section 7 Data Refresh.

Switching Data Service Providers are expected to populate any environment capable of connection to CSS with this same baseline data set and the timing of this will be aligned with testing for a relevant REC Change Proposal.

The DCC Smart Metering Data Service Provider (DSP) SIT-B environment will be populated with a subset of meter data, to be agreed with the Switching Operator. This subset will be discreet from the existing meter data in SIT-B used to support Smart Metering testing.

4.4. UIT-A

The CSS UIT-A environment is used primarily for External Testing, either of new market entrants or Maintenance of Qualification of parties as a result of a significant change either to CSS or to a Party system.

The CSS UIT-A environment will be populated with a set of test data derived from a CSS Production data cut. This data may be refreshed as described in Section 7 Data Refresh.

It is not expected that Switching Data Service Providers connect to UIT-A, but if connection is required the Switching Data Service Providers are expected to populate their test environment with the Production data cut corresponding to that in CSS.

4.5. UIT-B

The CSS UIT-B environment may be used for testing of Major Releases and may be the target environment if any integrated testing with CSS was required by CSS Users as part of a REC Change Proposal.

The CSS UIT-B environment will be populated with a set of test data derived from a CSS Production data cut. This data may be refreshed as described in Section 7 Data Refresh.

Where a Switching Data Service Provider is required to undertake integrated testing connected to UIT-B, they are expected to populate their environment with their test data set corresponding to that in CSS i.e., derived from a Production data cut taken contemporaneously with the CSS data cut.

The arrangement for provision of aligned data by CSS Users other than Switching Data Service Providers will be covered within the scope of any relevant REC Change Proposal.

The DCC Smart Metering Data Service Provider (DSP) UIT-B environment will be populated with a subset of meter data, to be agreed with the Switching Operator. This subset will be discreet from the existing meter data in SIT-B used to support Smart Metering testing.

4.6. PreProd

The CSS PreProd environment is used primarily by the Switching Operator for Non-Functional Testing.

The CSS PreProd environment will be populated with a set of test data derived from a CSS Production data cut. This data may be refreshed as described in Section 7 Data Refresh.

It is not expected that Switching Data Service Providers connect to PreProd unless requested through a REC Change Proposal.

5. Test Data Management

With a coordinated test data set within the CSS and Switching Data Service Provider environments, data usage will be managed to retain alignment across the environments. REC Parties should not use test data in the Switching environments, that may connect to SIT or UIT environments, unless it is a test data set allocated by the Switching Operator and derived from a test data set corresponding to that in CSS i.e., derived from a Production data cut taken contemporaneously with the CSS data cut. Integrated Sandbox testing is not supported in the Switching environments.

To support the management of test data, this section describes:

- The identification of test data for any Party requiring data to support integrated testing.
- The mechanisms used to allocate test data to Parties.
- The process and mechanisms for the distribution of those test data allocations to all relevant Parties.

Where an SDSP requires to undertake testing in an environment containing the aligned test data, the Switching Operator should be informed by contacting the following email address: DCCSwitchingSI@netcompany.com

The Switching Operator should be provided with data requirements and the name and contact details of the user that will require access to the test data Tool to receive the allocated test data.

5.1. Test Data Identification

The Switching Operator will be responsible for the identification of test data for all REC Parties using the Switching environments, to support all testing requirements, including External Testing, and the testing of Operational and Major Releases. Where an SDSP chooses to execute non-integrated Sandbox testing, they are obligated to agree the test data set with the Switching Operator.

To facilitate the process of test data identification, the Switching Operator will use the Test Data Tool, executing SQL queries against a SQL DB containing a copy of Production data that corresponds to that loaded into the CSS environments. The SQL queries will identify data for specific data requirements, or to support planned test scenarios. The Switching Operator will maintain the Test Data Tool, recording data allocation for all Parties.

As described in Section 7 Data Refresh, when a data refresh is executed, the SQL DB underpinning the Test Data Tool will be populated with a fresh copy of this Production data, to allow continued data identification activities.

5.2. Test Data Allocation

The Switching Operator will identify test data for all relevant organisations, as described in Section 5.1 Test Data Identification. Test data allocations for any Release will take the following form:

- Data for the Switching Operator to allow the management of all testing for which they are responsible.
- Data for CSS.

Where requested through a REC Change Proposal, the Switching Operator may identify and allocate:

- Data for GRDA and GES
- Data for ERDAs

- Data for EES
- Data for DCC Smart Metering and ECOS
- Data for other CSS Users, where the CSS User is the registered Party for the MPxN at the point of the Production data cut.

For External Testing, the Switching Operator will allocate:

- Data associated with a dummy supplier.

In addition, where a Switching Data Service Provider requires to undertake their own testing in their environment where the aligned test data set is held, they should request the Switching Operator to allocate a set of test data for this purpose. This data will then be ring-fenced and so any resulting mis-alignment can be managed.

Note that data allocation does not imply the provision of the actual data to the Party, as the data will already exist on the target systems. Data allocation simply refers to the identification of test data associated with a party that is to be used for a specific set of planned tests. The test data allocations will include a logical identifier as an alias of the MPxN, for the required data. Where relevant, test data will be flagged against the target Test Scenario for which the allocated data has been identified.

Whenever test data is identified and allocated, this will include an appropriate level of contingency data to allow for retests and unexpected data issues.

Test data will be allocated to CSS Users where that CSS User is the registered party (as Supplier, Shipper, MAP etc) in the data set from the which the allocation is derived. A CSS User will never be issued with test data for which they are not the registered party. It is expected that where CSS Users are required to test Switching, they will use the Counterparty Simulator. The mechanisms for this are described in Section 8 Test Data for Counterparty Simulator.

The SQL queries used to identify the required data will populate an allocations table within the Test Data Tool SQL DB. This table will then be accessed by Parties using the Test Data Tool as described in Section 5.3 Test Data Distribution or, where appropriate, using another secure mechanism.

5.3. Test Data Distribution

Once the test data has been identified and allocated, it is distributed to Parties using the Test Data Tool (TDT).

5.3.1. Request access to the Test Data Tool (TDT)

Parties should request access to the TDT via a Jira access request form available at Switching Jira Service Desk - Jira Service Management (atlassian.net). The form will request details of the data owner. The Switching Operator will contact the data owner asking if the user should be given access to the test data.

If authorisation is received from the data owner, the Switching Operator will create the TDT user account and share the login credentials.

5.3.2. Request a TLS Certificate

To access the TDT, a TLS certificate must be requested in accordance with REC Schedule 25. A Service Request must be submitted in CSS ServiceNow specifying the environment to request the TLS certificate. Refer to the **REC Portal Schedule 25 CSS Schedule** document for instructions on how to request a certificate.

5.3.3. How to use the Test Data Tool

There are 2 relevant items available to TDT users:

- Test data Allocation
- Counterparty Simulator (CPS)

For test data, the user must select the environment or test phase for which the test data will be used. The test data may be downloaded as a zipped CSV file. After reviewing their test data, users can supply secure feedback to the Switching Operator via the TDT.

For the Counterparty Simulator there are 2 options, Switch MPxN or Withdraw MPxN. The CPS tool is interactive and enables users to update their test data for switches and withdrawals. Additional information can be found in Section 8 Test Data for Counterparty Simulator.

6. Creating New Test Data

Where additional test data is required that does not exist within the data sets, it may be necessary to create additional test data to support planned testing. Some data is scarce within the Production Data set e.g., certain types of Related MPAN data, and data of these types can be exhausted and require to be supplemented. This section describes the processes and mechanisms for the creation of new test data where existing test data is required to be supplemented to meet testing requirements. Where possible, this will be achieved in a manner that minimises the overheads to other Parties. For example, where new meters are required, existing unregistered meters may be used. These mechanisms are only appropriate for low volumes and would not be suitable for data provision for a Major Release. All mechanisms used to create new data use existing processes and functionality.

6.1. RMP Data

The creation of new Registrable Metering Point (RMP) data is performed by ERDA and GRDA systems.

Where additional RMP data is required to support integrated testing involving Switching Data Service Providers or CSS Users, the ERDA and GRDA organisations will be requested to submit the relevant RMP creation messages into the appropriate environment. It is expected that the requirement for data creation to be supported by ERDA or GRDA would only occur as a result of REC Change Proposals and would be captured as part of the impact.

Where additional RMP data is required to support testing involving DCC Service Providers only e.g., CSS and Simulators, the Switching Operator will use the Simulators to create RMP data, as if supplied by ERDA and GRDA.

6.2. Registration Data

The creation of new Registration data i.e., Initial Registration, is performed by CSS Users (Energy Suppliers).

Where additional Registration data is required to support integrated testing involving Switching Data Service Providers or CSS Users, the CSS User organisations will be requested to submit the relevant Initial Registration messages into the appropriate environment. It is expected that the requirement for data creation to be supported by CSS Users would only occur as a result of REC Change Proposals and would be captured as part of the impact.

Where additional Registration data is required to support testing involving DCC Service Providers only e.g., CSS and Simulators, the Switching Operator will use the Simulators to create Registration data, as if coming from CSS Users.

6.3. Market Domain Data

Where Market Domain Data changes are required within the CSS environments, the Switching Operator will manage this by coordinating with the CSS Provider and managing the MDD updates.

It is not expected to undertake maintenance of MDD in the Non-Production environments, to remain in step with Production changes. MDD will always need to align to the position as at the point of the Production data cut being used in each environment. New Market Domain Data will be required to support External Testing of new Market Entrants. The Switching Operator will also add MDD for a Dummy Supplier to support the Counterparty Simulator.

6.4. Switching Domain Data

Where Switching Domain Data changes are required within the CSS environments, the Switching Operator will manage this by coordinating with the CSS Provider and managing the SDD updates. It is expected that SDD would only change as a result of a REC Change Proposal.

6.5. Comms Hub Link Data

The creation of new Comms Hub Link data is performed by Smart Metering (DSP).

Where additional Comms Hub Link data is required to support integrated testing involving Switching Data Service Providers or CSS Users, Smart Metering (DSP) will be requested to submit the relevant Comms Hub Link data messages into the appropriate environment. It is expected that the requirement for data creation to be supported by Smart Metering (DSP) would only occur as a result of REC Change Proposals and would be captured as part of the impact.

Where additional Comms Hub Link data is required to support testing involving DCC Service Providers only e.g., CSS and Simulators, the Switching Operator will use the Simulators to create Comms Hub Link data, as if coming from Smart Metering (DSP).

7. Data Refresh

This section describes the approach to be taken to manage and coordinate the provision of Production data cuts across the Switching ecosystem to support integrated testing of the Switching. Data refresh will ensure that up-to-date and representative data is always used for integrated testing.

Data refresh is expected to be undertaken every 2-5 years. Copies of Production data will be utilised in all SIT, UIT and PreProd environments. REC Schedule 26 – Switching Service Management sets out Parties' obligations to participate in data refreshes when requested or instructed.

Why are periodic data refreshes required?

- **Test data is finite** - once it has been used, it cannot be reused. Certain test data types will, by their very nature, become increasingly scarce over time (e.g. unregistered data) as volumes are small to begin with.
- **New capabilities -** the introduction of new capabilities to CSS Production (e.g. after each Major Release) means that test data sets need to be populated with new Production data to facilitate future testing.
- **Aligned data sets** – if Parties have not maintained test environments this will impact integrated testing (e.g. complicated and time-consuming workarounds will be needed; it may not be possible to source test data needed for integrated testing in a timely manner).

- **Market changes** – The market is in a constant state of change (e.g. new market entrances/exits, RMP terminations, registration history changes etc). Having a test data set which is a true reflection of not only the latest CSS capabilities but also of the market makes testing more accurate and reliable.

Where a data refresh is implemented, it may be necessary for the Switching Operator to pause the monthly CSS Operational Release schedule, to allow a sufficient window of time to install the new data set within the relevant test environments and within the Test Data Tool.

The high-level process for requesting a coordinated copy of Parties' Production data is illustrated below:

- The Switching Operator will continuously monitor the amount of test data which is available against the pipeline of change and external testing. The lead time for a data refresh is usually six months, however there may be circumstances which necessitate a shorter lead time. Once the Switching Operator has established the need for a coordinated data cut, it will inform RECCo and the Code Manager.
- Once agreed, the SO will provide timeline options, allowing for contention with other REC or maintenance activities and any known risks or issues associated with these.
- The Code Manager will issue an impact assessment to all relevant parties (SO, CSS Provider and SDSPs) to confirm any costs of taking the data cut and implementing it, alongside costs for consultation, coordination, and planning, e.g., any other relevant Energy Code requirements or testing, so that a final date may be settled on, as they will all be in scope for the refresh. Table 2 below sets out the Parties which may be asked to participate – but this will be confirmed on a case-by-case basis.
- Parties will impact assess and provide costs as per the request issued.
- Once the responses have been reviewed and the final plan has been agreed by RECCo and the Code Manager, the Code Manager will issue the formal notification of the refresh details and plan. Any detailed plan will also detail the approach to data security and retention.
- The plan will be enacted, with the SO coordinating both the data cuts and the implementation, unless otherwise agreed.

7.1. Data Refresh Participants

This section provides information on the organisations that may be required to create a copy of their Production data as part of the coordinated data cut.

Table 2 Data Refresh Participants

Participant	Mandated	Comments
CSS	Yes	• The CSS Provider will be required to take a copy of CSS.

Participant	Mandated	Comments
		• The data will need to be loaded into the required test environments, any or all of SIT-A, SIT-B, UIT-A, UIT-B or PreProd. • The CSS Provider will be required to place a copy of the Production data within one of the pre-existing SQL DBs to allow the Switching Operator to manage the identification, allocation, and distribution of test data using the Test Data Tool.
ERDA	Yes (subset)	• A defined subset of ERDAs would be required to take a copy of MPRS. • The subset of DNOs and iDNOs that are participating in integrated testing will be required to load the data into their test environment.
GRDA	Yes	• The GRDA will be required to take a copy of UK Link. • The GRDA will be required to load the data into their test environment. • It is understood that no separate data cut is required for GES.
EES	Yes	• The EES Provider will be required to take a copy of EES. • The EES Provider will be required to load the data into their test environment.
DSP Smart Metering	Yes	• The Smart Metering DSP will be required to take a copy of DSP. • It is assumed that the DSP SIT and UIT environments will not hold a full Production data cut. • The Switching Operator will identify and allocate the data for DSP Smart Metering and distribute this using the Test Data Tool as described in Section 5.
Domain Data	Yes	• A coordinated extract of Gas and Electricity Market Domain Data will be required to provide the Switching Operator with the baselined position at the point of the Production data cut. • The Switching Operator will translate this into the standard MDD spreadsheet format to allow any further changes to MDD to provide to the CSS Provider to allow population of CSS, for example for a new Market Entrant for External Testing
CSS Users (Energy Suppliers)	No	• Energy Suppliers may be required, as a result of a REC Change Proposal, to take a copy of their Production data to support future requirements for integrated testing. • As CSS Users will not take a coterminous Production data cut, additional time will need to be factored into the REC Change Proposal test plan to define aligned data.

CSS Users (Others)	No	• The following organisation types may be required, as a result of a REC Change Proposal, to take a copy of their Production data to support future requirements for integrated testing:
		  ○ Shippers
		  ○ DAs, DCs
		  ○ MAPs
		  ○ MEMs

Participant	Mandated	Comments
		• As CSS Users will not take a coterminous Production data cut, additional time will need to be factored into the REC Change Proposal plan to define aligned data.

7.2. Data Refresh Mechanism

For each party required to take a copy of Production data, the following high-level steps are required to be undertaken:

- Take a copy of Production data at an agreed and coordinated point in time to be defined by REC Change Proposal.
- Install the dataset within all relevant test environments.

In addition, the CSS Provider will be required to populate one or more of the SQL DBs within the CSS Provider Azure environments with a copy of the Production data, to allow the Switching Operator to identify, allocate and distribute test data to parties using the Test Data Tool.

8. Test Data for Counterparty Simulator

The Counterparty Simulator (CPS) tool allows parties who are only testing with a single MPID to perform CSS External Testing to simulate the counterparty interactions.

The CPS tool will initiate Switch Requests and Switch Request Withdrawals (where the CPS is acting as a Gaining Party), which are triggered by the Testing Parties using the TDT front-end interface. For tests as a Gaining Supplier, the Counterparty Simulator also supports Switch Objections and Annulments.

The CPS and TDT work in conjunction, as the test data from the TDT feeds into the testing process supported by the CPS.

Where CSS Users are required to execute tests acting as the Gaining Supplier using the Counterparty Simulator, REC Technical Services will raise a Change Proposal for the Switching Operator to assign MPxNs to a Dummy MPID. The MPxNs will then be communicated to the CSS User using the Test Data Tool.

9. Test Data Retention

Where a REC Change Proposal, Change Request or other request as per Section 7 Data Refresh is raised for the taking of Production data cuts, the documentation will provide requirements on the retention of such data by the Parties. It is expected that Parties will be required to retain copies of these Production data cuts until such time as they are superseded as a result of a subsequent data cut.

10. Test Data Security

All parties handling test data under the Enduring Switching arrangements must comply with existing REC and GDPR Security Requirements.

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