Technical Specification Document

Electricity Retail Data Service (ERDS) Service Definition

Version: 0.2   Effective Date: TBC

Change History

Version Number	Implementation Date	Reason for Change
0.1	TBD	Initial Draft for November 2019 Technical Specification Approach Consultation
0.2	TBD	Draft for Spring 2021 Switching Consultation

Contents Table

1   Description of service

1.1   The Electricity Retail Data Service (ERDS) is a Switching Data Service provided by the Electricity Retail Data Agent. The ERDS's primary purpose is to enable the exchange of Registration and RMP data between, Electricity Suppliers, Distribution Network Operators (DNOs), the Supplier Meter Registration Agent (SMRA), the Smart Meter Data Service Provider (SMDSP), the Green Deal Central Charge Database Provider (GDCC), the Market Domain Data Agent (MDDA) and the Central Switching Service Provider (CSS Provider). Paragraph 3 details all of Market Participants and the exchanges of data between each entity in greater detail.

1.2   The ERDA is not a Party to the Code. Where the ERDA is referenced within this Code, DNOs are obliged to ensure that the services are provided in line with this Code.

1.3   The ERDA is referenced within a number of REC Schedules, specifically the Registration Services Schedule, Switching Data Management Schedule, RMP Lifecycle Schedule, Related Metering Point Schedule and Address Management Schedule. This document should be read in conjunction with those REC Schedules.

1.4   The ERDA is one of a number of Switching Data Service Providers and is therefore captured within the scope of the overall switching service management arrangements, as defined in the Service Management Schedule.

1.5   The ERDA may use a CSS Interface Provider to exchange Market Messages with the Central Switching Service. Where this is the case, the ERDA retains responsibility for its obligations set out within the Code, including this Service Definition.

2   Definition of Users

2.1   The ERDS interfaces with the following users:

(a)   CSS Provider;

(b)   DNOs;

(c)   SMRA[1];

(d)   SMDSP;

(e)   GDCC Provider;

(f)   MDDA; and

(g)   Electricity Suppliers.

2.2   Further details regarding the interaction with each of these users is included in Paragraph 3.

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[1] The ERDS will be the Data Master for the RMP Status which will be provided to the Electricity Enquiry Service. As this data will be held within the Meter Point Registration Service alongside data mastered by the SMRS, a specific interface between the ERDS and EES has not been defined. The interface between the SMRS and the EES will include the RMP Status.

3 Service Functionality

3.1 The key function of the ERDS is to pass Market Messages between Electricity Suppliers, DNOs, the SMRA, the SMDSP, the GDCC, the MDDA and the CSS Provider in accordance with the Registration Services Schedule, Switching Data Management Schedule RMP Lifecycle Schedule, Related Metering Point Schedule and Address Management Schedule. These Market Messages must conform to the message structure defined in the Data Specification which may require the ERDS to carry out transformation activities. The transformation rules are also defined within the Data Specification.

Market Messages sent by the ERDA

3.2 The ERDA shall send Market Messages to the CSS Provider in a consistent format as described in the Data Specification. The data sent from the ERDA to the CSS Provider is summarised below:

    (a) **Regulatory Alliance data** - identifies whether the necessary regulatory arrangements exist between an Electricity Supplier and a DNO. Where the ERDA becomes aware of a new or updated Regulatory Alliance, the ERDA shall send the CSS Provider the relevant message providing the updated Regulatory Alliance. This is specified in the Switching Data Management Schedule.

    (b) **Metering Point data** - Where the ERDA becomes aware of an amendment to Metering Point data, as described within the RMP Lifecycle Schedule or Related Metering Point Schedule; including:

        (i) a notification from a DNO[2] of a change in circumstances in respect of a Metering Point such that the RMP Status needs to be updated, and sent to the CSS Provider via the relevant Market Message in respect of that RMP;

        (ii) a notification from the DNO of a change to the Energy Flow Direction of a Metering Point;

        (iii) a notification from the GDCC of the creation or update of a Green Deal Plan associated to a Metering Point;

        (iv) a notification from the SMDSP updating the DCC Service Indicator for a Metering Point; or

        (v) a notification from an Electricity Supplier of the creation or update of a Related Metering Point Association.

    (c) **Meter Point Location Address** – Where the DNO creates or makes an amendment to the Meter Point Location (MPL) Address, the ERDA shall send the CSS Provider the relevant Market Message providing the updated MPL Address. This is specified in the Address Management Schedule.

    (d) **Supplier Agent Appointment and Meter Asset Provider update** – The ERDA will, in accordance with the RMP Lifecycle Schedule, notify the CSS Provider using the relevant Market Message where it becomes aware of:

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[2] The DNO and ERDA interfaces occur within the DNO's estate, therefore, they are not defined as Market Messages.

(i)   changes to the Meter Asset Provider(s) recorded at a Metering Point within SMRS; or

(ii)   an appointment of, or change to one or more Supplier Agents recorded for a Metering Point within SMRS.[3]

Market Messages received by the ERDA

3.3   The CSS Provider sends Registration and Retail Energy Location Address data to the ERDA in 'real time'. Response times by the ERDA are specified in Paragraph 7.

3.4   Where the ERDA receives, in accordance with the Registration Services Schedule, a new Registration or an update to an existing Registration, that data must be made available to the SMRS within the timescales referenced in Paragraph 7.

MDDA to ERDA Messages

3.5   The MDDA sends Market Messages to the ERDA in a consistent format as described in the Data Specification. The data sent from the MDDA to the ERDS includes Market Participant Data utilised by the ERDA in order to manage Regulatory Alliances.

Metering Equipiment Manager to ERDA Messages

3.6   Metering Equipment Managers send Market Messages to the ERDA as required within the Metering Operations Schedule, in a consistent format as described in the Data Specification.

Electricity Supplier to ERDA Messages

3.7   Electricity Suppliers send Market Messages to the ERDA as required within the Related Metering Point Schedule, in a consistent format as described in the Data Specification.

Smart Metering Data Service Provider to ERDA Messages

3.8   The Smart Metering Data Service Provider sends Market Messages to the ERDA as required within the Smart Energy Code, in a consistent format as described in the Data Specification.

GDCC to ERDA Messages

3.9   The GDCC Provider sends Market Messages to the ERDA as required in the Green Deal Schedule, in a consistent format as described in the Data Specification.

4   System Access and User Management

4.1   The ERDS does not require any individual user management functionality beyond the user management functionality that each DNO requires for the operation of the service, which is not defined within this document. No provisioning of access to users outside of the DNO is required.

4.2   The ERDA is classed as a CSS User and must therefore comply with the requirements within the CSS Schedule. No specific access is granted to the CSS Provider by the ERDA.

4.3   Interfaces to the GDCC Provider, Electricity Suppliers and the MDDA utilise the Data Transfer Network for the transportation of Market Messages to and from a Data Transfer Network

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[3] SMRS and the ERDS are logical interfaces within the DNO's estate, therefore, interactions between the two services are not defined as Market Messages.

gateway within each DNO's estate. As such, a DNO is responsible for the transfer of Market Messages between its Data Transfer Network gateway and the ERDA.[4]

5   Service Availability

5.1   The ERDS shall be made available 24 hours, 7 days a week for the receipt and acknowledgment of Market Messages from the CSS Provider, except during scheduled maintenance periods and unplanned outages.

5.2   Service availability for the receipt and acknowledgement of Market Messages from the CSS Provider shall be 99.75% for each calendar year (excluding scheduled maintenance).

5.3   A daily maintenance window for scheduled maintenance is permitted between [XX:00hrs] and [XX:00hrs] each day.

5.4   In the event of scheduled maintenance, the ERDA shall provide notice to the Switching Operator for inclusion in the forward schedule of change, in accordance with the Service Management Schedule.

5.5   In the event of an unplanned outage (e.g. to fix a priority incident), the notice and means will be specified in the Service Management Schedule.

6   User support

6.1   The ERDS does not have an externally facing service desk. Any Switching Incidents and Switching Service Requests shall be raised via the Switching Portal. The ERDA shall provide second line support in accordance with this Paragraph 6 and the Service Management Schedule.

6.2   The ERDA shall support the response and resolution times for the following Switching Incident categories.

(a)   Priority 1 – for Switching Incidents causing critical impact and significant financial loss / disruption - 10 mins response with a 1 - 4 hours resolution time;

(b)   Priority 2 – for Switching Incidents causing non-critical impact with non-significant financial loss / disruption - 20 mins response with a 24 hours resolution time;

(c)   Priority 3 – for Switching Incidents causing adverse impact but can be reduced to moderate adverse impact - 45 mins response with a 72 hours resolution time;

(d)   Priority 4 – for Switching Incidents causing minimal impact - 1 day response with a 10 day resolution time.[5]

7   Service Levels

Response to CSS Market Messages

7.1   Each ERDS shall respond to Market Messages from the CSS Provider relating to Secured Switches at Gate Closure as follows:

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[4] For the purposes of the Data Transfer Network, the ERDA and the SMRS are identified as the same Market Role Code within Market Domain Data.

[5] [These SLAs reflect the overall switching service management priority levels – DCC is considering application of these SLAs across each Switching Data Service].

(a)   at average daily volume, mean response time of 20 minutes or less;

(b)   at average daily volume, 90th percentile response time of 25 minutes or less;

(c)   at peak daily volume, mean response time of 35 minutes; and

(d)   at peak daily volume, 90th percentile response time of 40 minutes.

7.2   Each ERDS shall respond to Market Messages from the CSS Provider other than at Gate Closure as follows:

(a)   at average hourly volume, mean response time of 6s or less;

(b)   at average hourly volume, 90th percentile response time of 10s or less;

(c)   at peak hourly volume, mean response time of 10s or less; and

(d)   at peak hourly volume, 90th percentile response time of 15s or less.

Processing Data Received by the ERDA

7.3   Data received by the ERDA shall be included within the Total Daily Processing on the basis that all data received prior to 18:00hrs is made available to the SMRS or CSS (as applicable) by 06:00 the following Working Day. Data received after 18:00hrs will be made available to the SMRA or CSS Provider (as applicable) on the second Working Day.

8   Maximum Design Volumes

8.1   Each ERDS shall meet the requirements set out below. Where the values are breached, the service received by the user may not be subject to the expected service levels. This will not constitute a breach by the ERDA.

8.2   Where Maximum Design Volumes are breached within a given month the ERDA shall report the breach incident to the Code Manager, and any impacts reported against the service. The Code Manager may initiate a Change Proposal to increase the Maximum Design Volumes or take remedial steps to prevent recurrence of the breach.

Processing of data from the CSS Provider

8.3   Each ERDS shall have the capability to process, as a minimum, CSS Market Messages relating to the following volume of successful Switch Requests:

(a)   average daily volume of 42,300;

(b)   a peak daily volume of 281,600;

(c)   an average hourly volume of 3,500;

(d)   a peak hourly volume of 25,300; and

(e)   an annual volume of 15,450,000.

8.4   In addition, each ERDS shall be capable of processing Market Messages from the CSS Provider relating to an annual volume of 375,800 Initial Registrations.

8.5   In exceptional circumstances, the ERDS shall be capable of processing Market Messages from the CSS Provider relating to 250,000 Switch Requests in addition to the average daily volume.

<u>Processing of data from the SMRS</u>

8.6   The ERDS provides data from the SMRS. Since this is a logical interface and there is no specific storage within the ERDS, no constraints are identified with receipt of this data from this source.

9   Business Continuity/Disaster Recovery

9.1   Following any outage the Recovery Point Objective will ensure that any unprocessed transactions will be processed by [Message Type] in the priority specified in the [Service Management Schedule]. Each [Message Type] priority will be processed in the order that they were received.[6]

9.2   In the event of an unplanned outage, the system shall resume operation within 1 hour.

9.3   Each ERDS shall maintain a business continuity process which allows the continued operation of the system in case of overall failure. This may be partially manual but must operable at the anticipated volumes.

10   Reporting

10.1   The ERDS shall provide a monthly performance report to the Switching Operator, providing details of overall service performance.[7]

11   System Audit

11.1   Each ERDS need not retain specific Market Messages, however they shall maintain an audit trail of messages received and responses sent (inbound and/or outbound messages).

12   Data Handling

12.1   Other than for audit purposes, no retention of data is required by this service in normal operation.

12.2   The system shall be able to detect loss and duplication of messages transferred from/to it and shall have facilities for rectification.

12.3   The system shall be able to detect mis-alignment of data between itself and other systems with which it exchanges synchronisations and shall have facilities for rectification.

13   Security

13.1   Security arrangements associated with the data exchange between each ERDS and other Market Participants and Switching Data Service Providers are covered by the following arrangements:

    (a)   CSS Provider – the ERDS is classified as a CSS User and the CSS security requirements apply, as set out in the CSS Schedule.

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[6] [Further work being progressed by DCC to define the BCDR requirements]
[7] [Further work being progressed by DCC to define the reporting requirements, specifically the contents of the monthly performance report]

(b)   DNOs – the ERDS is a service delivered by individual DNOs, therefore there is no physical interface.

(c)   Supplier Meter Registration Agent – the SMRS is also a service delivered by individual DNOs, therefore there is no physical interface required between the ERDA and the SMRA.

(d)   Market Domain Data Agent – the ERDS receives electricity Market Participant Data from the MDDA via a data flow transferred via the Data Transfer Network which requires the ERDS to have a Data Transfer Network connection. The associated security requirements form part of the Data Transfer Service Agreement .

(e)   Smart Meter Data Service Provider – the interface with the SMDSP is defined within the Smart Energy Code; therefore, the security requirements in relation to this interface reflect SEC requirements.

(f)   GDCC Provider - the interface with the GDCC Provider utilises the Data Transfer Network, with security information reflected in the Data Transfer Service Agreement.

(g)   Electricity Supplier – the interface with Electricity Suppliers utilises the Data Transfer Network, with security information reflected in the Data Transfer Service Agreement.

13.2   In the event that an ERDA detects a potential or suspected security breach it shall inform the Switching Service Desk immediately.