Technical Specification Document

Electricity Retail Data Service (ERDS) Service Definition

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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
1.0	18 July 2022	Switching SCR Modification R0041

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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 purpose is to enable the exchange of Registration and Registrable Measurement Point (RMP) data between, Electricity Suppliers, Distribution Network Operators (DNOs), Metering Equipment Managers (MEMs), the Supplier Meter Registration Agent (SMRA), the Electricity Enquiry Service (EES), the Smart Meter Data Service Provider (SMDSP), the Green Deal Central Charging 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 Sswitching Service Management arrangements, as defined in the Switching Service Management Schedule. The scope of the Switching Service Management arrangements is limited to the primary interface between the ERDA (or its contracted CSS Interface Provider) and the CSS Provider.

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 ERDS Users

2.1 The ERDS interfaces with the following users:

(a) CSS Provider;

(b) DNOs;

(c) SMRA;

(d) EES[1];

(e) SMDSP;

(f) GDCC Provider;

(g) MDDA; and

(h) Electricity Suppliers.

[1] Both the ERDS and SMRS will be the Data Master for data which will be provided to the EES. As this data will be held within the Metering Point Registration System, separate interfaces between the ERDS / SMRS and EES have not been defined. The interface between the ERDS and the EES will include SMRS data including RMP Status and Metered Data.

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

3 Service Functionality

3.1 The key function of the ERDS is to pass Market Messages between Electricity Suppliers, DNOs, MEMs, the SMRA, the EES, 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 Flag for a Metering Point; or

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

(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.

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

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(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:

(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]

3.3 The ERDA sends Metered Data and RMP Status data in a single Market Message combined with data held by the SMRS to the EES following ERDS Total Daily Processing.

Market Messages received by the ERDA

3.4 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.

3.5 Where the ERDA receives data, 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

3.6 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

3.7 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

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

Smart Meter Data Service Provider to ERDA Messages

3.9 The Smart Meter Data Service Provider (SMDSP) 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

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

[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.

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 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 provided 24 hours, seven 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 month (excluding Scheduled Maintenance).

5.3 Scheduled Maintenance shall not occur between 16:00 and 01:00 hours. In the event of Scheduled Maintenance that impacts the service that the ERDA is providing under the REC, the ERDA shall provide notice to the Switching Operator for inclusion in the forward schedule of change, in accordance with the Switching Service Management Schedule.

5.4 In the event of an unplanned outage:

(a) the ERDA shall notify the Switching Operator in accordance with the Switching Service Management Schedule; and

(b) the System shall resume operation within one hour.

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 Switching 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 – 30 minute response with a four hour resolution time;

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

[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.

(c) Priority 3 – for Switching Incidents causing adverse impact but can be reduced to moderate adverse impact – three Working Hour response with a three Working Day resolution time;

(d) Priority 4 – for Switching Incidents causing minimal impact – one Working Day response with a 10 Working Day resolution time.

7 Service Levels

Response to CSS Market Messages

7.1 Each ERDS shall respond to Market Messages relating to secured Switches received from the CSS Provider at Gate Closure (from the point at which the System receives the first message to the point at which it sends the acknowledgement of receipt for the last message) as follows:

Performance Parameter	*Performance Level*
Processing of data received from the CSS relating to Secured Active Switches during Gate Closure period	
Up to and including average daily volume	mean response time of 20 minutes or less
Up to and including average daily volume	90th percentile response time of 25 minutes or less
Above average daily volume and up to and including peak daily volume	mean response time of 35 minutes or less
Above average daily volume and up to and including peak daily volume	90th percentile response time of 40 minutes or less

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

Performance Parameter	*Performance Level*
Processing of data received from the CSS outside of the Gate Closure period	
Up to and including average hourly volume	mean response time of six seconds or less
Up to and including average hourly volume	90th percentile response time of 10 seconds or less
Above average hourly volume and up to and including peak hourly volume	mean response time of 10 seconds or less
Above average hourly volume and up to and including peak hourly volume	90th percentile response time of 15 seconds or less

Processing Data Received by the ERDA

7.3 Data received by the ERDA shall be included within the ERDS Total Daily Processing on the basis that all data received prior to 23:00hrs is made available to the SMRA, EES Provider or CSS Provider (as applicable) by 06:00 hrs the following Working Day. Data received after 23:00hrs will be made available to the SMRA, EES Provider or CSS Provider (as applicable) by the second Working Day.

Management of BCDR events

7.4 Where a BCDR event is invoked, the Recovery Time Objective for the ERDS will be:

(a) four hours target time; and

(b) eight hours maximum time.

8 Maximum Demand Volumes

8.1 Individual maximum demand volumes shall be determined by the Code Manager for each ERDA on an annual basis using the data provided by the CSS Provider in accordance with Clause 9.24 of the main body of this Code for the month of October each year. Each ERDA's market share shall be calculated by the Code Manager based on the total number of Metering Points connected to the relevant DNO's network, divided by the total number of Metering Points Registered within the CSS. This market share value shall be applied to each of the overall electricity maximum demand volumes in Paragraph 8.3, with the addition of a 10% headroom to allow for growth in the number of connected Metering Points.

8.2 Where maximum demand volumes are breached within a given month, the ERDA shall report the breach incident, and any impacts against the service, to the Code Manager. The Code Manager may initiate a Change Proposal to increase the overall maximum demand volumes in Paragraph 8.3 or take remedial steps to prevent recurrence of the breach.

Processing of data from the CSS Provider

8.3 The maximum demand volumes to be used in the calculation described in Paragraph 8.1 are:

(a) processing an average daily volume of 24,534 successful Switch Requests;

(b) processing a peak daily volume of 163,328 successful Switch Requests;

(c) processingan average hourly volume of 2,030 successful Switch Requests;

(d) processing a peak hourly volume of 14,674 successful Switch Requests;

(e) processing an annual volume of 8,961,000 successful Switch Requests;

(f) processing an annual volume of 217,964 Initial Registration Requests;

(g) in exceptional circumstances, processing 145,000 Switch Requests, in addition to the average daily volume;

(h) storing 32,074,000 Metering Points; and

(i) supporting a 217,964 increase in the number of Metering Points in the first year of the CSS's operation.

Processing of data from the SMRS

8.4 The ERDS receives 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.

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9 Reporting

9.1 The ERDS shall provide a monthly performance report to the Code Manager for consideration by the Performance Assurance Board, providing details of overall service performance against requirements set out within this Service Definition.

10 System Audit

10.1 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).

11 Data Handling

11.1 The ERDA shall receive data from the CSS Provider and provide an initial response within the timescales set out in Paragraph 7.

11.2 When incoming updates to the ERDA are processed on a periodic basis, Market Messages from the CSS Provider shall be processed before updates originating from Electricity Suppliers.

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

11.4 The ERDS shall be able to detect loss of Market Messages sent from it and duplication of Market Messages transferred to it.

11.5 Upon receipt of a Market Message that indicates / infers a data inconsistency with the CSS, the ERDA will initiate the required steps to determine the necessary resolution.

12 Security

12.1 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.

(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 Services 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 Services Agreement.

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

12.2 In the event that an ERDA detects a potential or suspected security breach impacting Switching related Systems, it shall raise a Switching Incident (in accordance with the Switching Service Management Schedule) immediately.

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