
Electricity Retail Data Service (ERDS) Service Definition

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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
1.1	4 November 2022	R0036
<u>MHHS v0.1</u>	<u>N/A</u>	<u>MHHS required changes: Draft for industry review</u>
<u>MHHS v0.2</u>	<u>N/A</u>	<u>MHHS required changes: Draft updated post industry consultation (change to info in comments only)</u>

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 Agents \(SMRAs\)](#), ~~the [Electricity Enquiry Service \(EES\)](#)~~, the [Smart Meter Data Service Provider \(SMDSP\)](#), the [Green Deal Central Charging Database \(GDCC\)](#), ~~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 Points 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 [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](#):

Commented [SJ1]: Housekeeping item raised (typo)

Commented [AW2]: Section amended to clarify the dual role of the ERDA and SMRA, with the ERDS accepting the data for provision to CSS and SMRS accepting the data to enable update to be issued to market participants via the DIP.

(a) [CSS Provider](#);

~~(b) DNOs;~~

~~(be) SMRAs;~~

~~(d) EES¹;~~

~~¹Both 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](#).~~

~~(ce) SMDSP; and~~

~~(df) GDCC Provider;~~

~~(g) MDDA; and~~

~~(h) Electricity Suppliers.~~

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](#)~~, ~~[SMRAs](#)~~, ~~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 Points 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](#) and within the timescales referenced in [Paragraph 7](#). 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 Points Schedule](#),² including:²
- (i) a ~~notification from a DNO² 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](#);
 - ~~²The DNO and ERDA interfaces occur within the DNO's estate, therefore, they are not defined as Market Messages.~~
 - (ii) ~~a notification from the DNO of~~ a change to the energy flow direction of a [Metering Point](#); or
 - ~~(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~~
 - ~~(iiiiv) 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](#).
- (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 Agent](#)s recorded for a [Metering Point](#) within [SMRS](#).³

Commented [SJ3]: Redrafted clause to reflect the move of responsibility for interfaces with DNOs and Suppliers from the ERDS to the SMRS. GDCC and SMDSP interfaces remain with the ERDS and have been moved to separate clauses for clarity

Commented [SJ4]: Smart Meter Data Retriever added to the definition of Supplier Agents as part of R044 text

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](#).

~~(e) **Green Deal Plans** – where the ERDA receives a notification from the GDCC of the creation or update of a Green Deal Plan associated to a Metering Point, the ERDA shall send the CSS Provider the relevant message. This is specified in the RMP Lifecycle Schedule.~~

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~~(f) **DCC Service Flag** – where the ERDA receives a notification from the SMDSP updating the DCC Service Flag for a Metering Point, the ERDA shall send the CSS Provider the relevant message. This is specified in the RMP Lifecycle Schedule.~~

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~~3.3. The ERDA sends Motored 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. Not used.~~

Commented [SJ5]: Deleted as the interface to the EES will be SMRS defined using the DIP

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 [SMRAS](#) within the timescales referenced in Paragraph 7.

MDDA to ERDA Messages

~~3.7.3.6. 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. Not used.~~

Commented [SJ6]: Assumption that this is covered by the ISD being sent to the SMRS

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Commented [SJ7]: Metering data now shared with SMRS via the DIP

Metering Equipment Manager to ERDA Messages

~~3.9.3.7. Metering Equipment Manager send Market Messages to the ERDA as required within the Metering Operations Schedule, in a consistent format as described in the Data Specification. Not used.~~

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Electricity Supplier to ERDA Messages

~~3.11.3.8. 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. Not used.~~

Smart Meter Data Service Provider to ERDA Messages

~~3.12.3.9. 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

~~3.13.3.10. The GDCC Provider sends Market Message to the ERDA as required in the Green Deal Arrangements 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 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~~

~~4.4.4.3. ⁴For the purposes of the Data Transfer Network, the ERDA and the SMRSA are identified as the same Market Role Code within Industry Standing Data. Market Domain Data.~~

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Commented [SJ8]: Related Metering Point data now shared with SMRS via the DIP

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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;
 - (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 from the CSS Provider at Gate Closure (from the [CSS Provider](#) relating to secured [Switches](#) 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 until peak daily volume	mean response time of 35 minutes
Above average daily volume and up to and including until 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 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 until peak hourly volume	mean response time of 10 seconds or less
Above average hourly volume and up to and including until peak hourly volume	90th percentile response time of 15 seconds or less

Processing ~~Data-CSS Market Messages~~ Received by the ERDA

~~7.3. Data received by the ERDA from the CSS Provider shall be processed within timescales that allow the associated SMRA to meet its obligations under the BSC. 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 SMRAs, EES Provider or CSS Provider (as applicable) by 06:00hrs the following Working Day. Data received after 23:00hrs will be made available to the SMRAs, EES Provider or CSS Provider (as applicable) by the second Working Day.~~

Commented [SJ9]: Assumption that the MHHS requirements relating to the sending of the IF001, IF002, IF036, IF037 and IF009 following receipt of CSS messages will be reflected in the BSC SMRS drafting.

Provision of CSS Market Messages by the ERDA

7.3A Subject to Paragraph 7.3B, the ERDA shall provide any data defined in- Paragraph 3.2 to the CSS Provider by 06:00hrs the following Working Day where the data is received prior to 23:00hrs and by 06:00hrs on the second Working Day where the data is received after 23:00hrs.

Commented [AW10]: This is subject to clarification via CR-017 / 018. Assumption that the sending of data to the CSS (other than appointments) will continue to be managed on a working day basis.

7.3B The ERDA shall provide Supplier Agent Appointment data within xxx of the Appointment confirmation by the equivalent SMRA.

Commented [SJ11]: Post consultation update to added DIN reference to comment
Design issue raised DIN328, linked to R044 on how quickly agent appointment data, will be sent to CSS

Management of BCDR events

~~7.3-7.4.~~ 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) processing an 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.

Commented [SJ12]: Assumption that capacity constraints will be included in the BSC as part of the SMRS requirements

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.~~

(be) [Supplier Meter Registration Agents](#) – the [SMRS](#) is ~~also~~ a service delivered by individual [DNOs](#), therefore there is no physical interface required between the [ERDA](#) and the [SMRAs](#).

~~(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](#).~~

(ec) [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.

(df) [GDCC Provider](#) - the interface with the [GDCC Provider](#) utilises the [Data Transfer Network](#), with security information reflected in the [Data Transfer Services Agreement](#).

~~(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.