

THE REC DATA SPECIFICATION

Overview

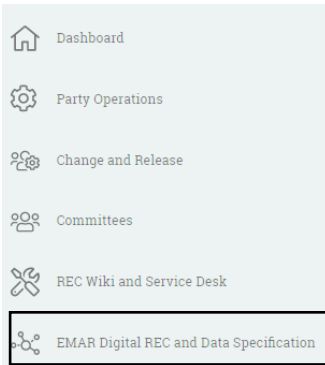
The Retail Energy Code (REC) Data Specification describes the Data Items and Market Messages that are used by energy industry parties to send and receive information. The Data Specification contains not only REC owned items but also messages and data items governed under the Balancing and Settlement Code (BSC), Distribution, Connection and Use of System Agreement (DCUSA) and Smart Energy Code (SEC). This page provides details on using the Data Specification.

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1. Accessing the Data Specification

The REC Data Specification is available to view within the Energy Market Architecture Repository (EMAR) Digital Navigator, which can be accessed through the REC Portal by following the directions below:

Firstly, click on the link [here](#) that will automatically direct you to the REC Portal home page.



Then, select the Digital REC and EMAR button through the REC Portal dashboard, you will then be navigated to a new landing page.

On the landing page select the Digital Navigator button.

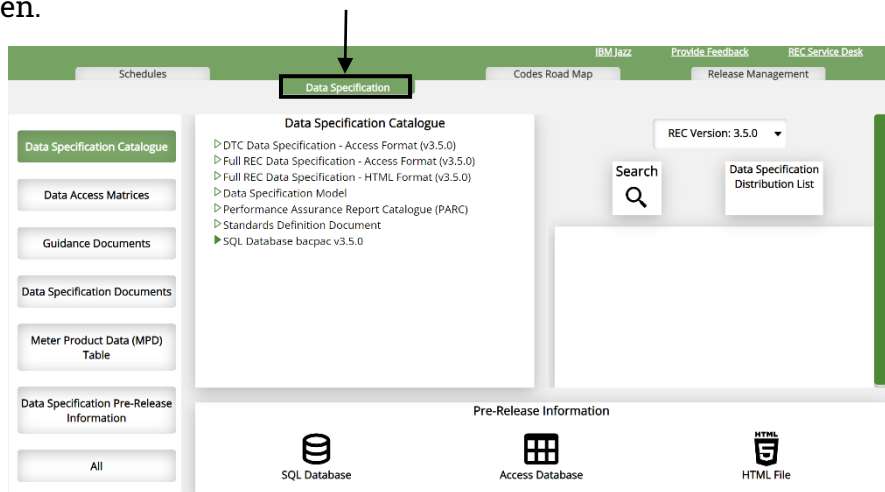


By clicking on the Digital Navigator, you will automatically be re-directed to its home page.

Please note, registration within the REC Portal is **not** required to access the Digital Navigator, Data Specification and Codes Schedules. However, pre-registration is required should parties wish to access the IBM Jazz dashboard (required to ensure the correct level of access is provided to parties)

2. Navigating the Data Specification in the Digital Navigator

The Digital Navigator homepage is as shown below, it will automatically default to the Schedules dashboard, to access the Data Specification dashboard you simply need to select 'Data Specification' on the top panel. Note: Your selected option will turn into a darker green.



2.1 Data Specification Dashboard

2.1.1 Dashboard overview

The Data Specification dashboard contains six different categories:

Data Specification Catalogue: This contains the Full REC Data Specification in three different formats – SQL, Access, and HTML. Here, you will be able to view the full catalogues for the different Market Messages, Scenario Variants and Data Items. Note: It is advised should you only wish to view certain aspects to use the Detailed Search Function to search the above. (Shown in subsequent steps)

Data Specification Documents: In this category you will be able to locate multiple documents that outline specific rules and information related to the Data Specification build. This includes documents such as Technical Specifications, Rules for various API's and, how addresses should be populated.

Data Access Matrices: This defines what type of data different categories of organisation have access to. For more guidance, click [here](#)

Meter Product Data Table: This details gas Meter and Converter attributes. You can find more information [here](#)

Guidance Documents: The Legacy DTC additional information exists as it contains useful additional legacy DTC information for the creation of new flows.

Data Specification Pre-Release information: Any upcoming versions of the Data Specification, in its relevant formats will be available to view at the bottom of the Data Specification dashboard (below)



Note: Selecting on one or more of these icons will start the automatic opening/ download into your browser.

2.2 Data specification detailed search

2.2.1 Detailed search overview

The Detailed Search function provides you with an easier way to search for either Market Messages, Scenario Variant and, Data items. Once the 'Search' icon has been selected from the Data Specification dashboard, the below page will become available.

Note: Your selected option will turn to a darker green.

Identifier	Local Reference	Message Name
MM00105	D0202	Readings and Settings from a Removed Smart Card Meter
MM00106	D0203	Rejection of Changes to Metering Point Details
MM00107	D0204	Selective or Full Refresh of MPAS Details
MM00108	D0205	Update Registration Details
MM00109	D0209	Instruction(s) to Non Half Hourly or Half Hourly Data Aggregator
MM00111	D0213	Advice from MPAS of Changed Metering Point Details
MM00114	D0214	Confirmation of Proving Tests
MM00117	D0215	Provision of Site Technical Details
MM00119	D0216	Request Installation of Taken Meter
MM00120	D0217	Confirmation of the Registration of a Metering Point
MM00121	D0221	Notification of Failure to Install or Energise Metering System
MM00123	D0222	Change in Customer Details
MM00126	D0223	Request to Install Check Meter or Carry Out Accuracy Tests
MM00127	D0224	Notification of Programme for Re-Certification Meter Changes
MM00128	D0225	Priority Services Details
MM00132	D0227	BSCCo Market Domain Data File
MM00134	D0235	Half Hourly Aggregation Exception Report
MM00137	D0236	Revenue Protection Service Statistical Report
MM00138	D0237	Notification by Revenue Protection Service of Possible Irregularity
MM00139	D0238	Request and Information for Revenue Protection Investigation
MM00140	D0239	Revenue Protection Report on Action Taken
MM00142	D0242	Supercustomer DUoS Daily Statement
MM00144	D0260	Notification from MPAS of Old Supplier Registration Details
MM00145	D0261	Rejection of Agent Appointment
MM00151	D0262	Rejection of Disconnection
MM00152	D0265	Line Loss Factor Data File
MM00155	DN766	Supplier Settlement Header Report

The Search dashboard will automatically default to Market Messages. The free text search field can be used to refine the search for a specific Market Message (using full or partial search criterion). Additional filters can be added to refine on the Source/ Target flow parties. Only one party for each field can be selected at one time. You can also scroll down the page to find a full list of Market Messages and select from here.

You can select Scenario Variants and Data Items from the left-panel, which will display the same search page but show the information related to Scenario Variants, and Data Items. The free text search functionality works the same way, except for Data Items which have no additional filters for Source or Target parties.

2.2.2 Market Messages

When a specified Market Message is selected, you will be automatically directed to its cover page which will tell you about the flow and include:

- a description of the Market Message,
- the version number,
- any notes associated to that specific Market Message and,
- a list of all the data items included within the selected Market Message

To view the content of a Market Message in more detail, you will have to scroll down and select a scenario variant. Note: If you have previously filtered a source and target, you will still have to select a scenario variant.

The Scenario Variants table details which industry parties can send and receive this message. Each combination of source and target has a unique reference number, called the Scenario Variant. This table also details the "Owner", i.e. the code under which changes are governed.

If the Market Message has a significantly long list of associated Data Items or Scenario Variants, the left-panel (below) can be selected which will automatically direct you to the required area of the page with the information you are looking for, without the need to scroll down the page.

REC Version: 3.5.0

MM00004 - Notification of Change of Supplier Readings

Legacy Reference/s	Message Version	Owner
D0086	002	Owner

Description Transfer change of supplier readings that have passed validations, failed validations and that are deemed readings.

Notes The structure of this data flow must always match the structure of flow D0010. Where confirming a reading received on a D0071, where "Reading Type" has been populated with the value 'O' (Old Supplier's Estimated CoS Reading), the NHHDC should populate the data item "Reading Type" with 'D' to signify that the reading has been Deemed or Estimated and is in line with meter reading history.

Note: Your specified selection will turn to a darker green

2.2.3 Flow Structure

After selecting a Scenario Variant, you will be directed to a page where the flow structure will be displayed (e.g., shown below). The table sets out how the flow is structured. Each group represents a line within the Market Message file. For example, the first group (reference 196) would sit under the header row and contain the MPAN Core and BSC Validation Status.

Group ID	Group Description	Range	Condition	L1	L2	L3	L4	L5	L6	L7	L8	Data Item Name	Data Item Rule
196	MPAN Cores	1 - *		G								MPAN Core BSC Validation Status	
	Modality	Cardinality	Levels		1								
765	Site Visit Information	0 - *		G									

Note: You can find out more about data flow structures in the 'Data Transfer Handbook' (for DTN messages) and 'Gas User File Design Specification' (for RGMA and legacy SPAA messages); these are published by ElectraLink. For messages sent over IX, the UK Link Manual provides flow structure information. See section 5 for further information.

Range: This outlines how many instances a Group needs to be implemented. The minimum number of instances is referred to as the **modality** and the maximum number of instances is referred to as the **cardinality**.

Levels: Presents the relationship between each of the data items within a Group and their conditionality (1 = Mandatory, 0 = Optional, C = Conditional).

To view the data items in more detail, simply click on the name. For more information on Data Items please refer to section 2.2.5

2.2.4 Scenario Variant

Once you have selected a Scenario Variant you will be automatically directed to its Flow Structure (See 2.2.3).

2.2.5 Data Item

Once you have selected a Data Item you will be automatically directed to its cover page which will include:

- Logical length – this is the number of characters required within a data item without any additional allowable symbols. For example, -99.99 has a logical length of four.
- Decimal length – this is the number of characters required to be present following a decimal point character. For example, -99.99 has a decimal length of two.
- Physical length – this is the total length of a data item including space for a decimal place or negative sign, if required. For example, -99.99 has a physical length of six.
- Data Type – all data items must conform to a certain format. Within the Data Specification, the data types are text and symbol character fields (string), true/false indicators (boolean), or numeric characters (number).
- Data Type Format Rule – within the allowed Data Types, data items must be further defined through a set of rules. The Data Specification contains a number of format rules which govern character sets and formats that are permissible within each Data Type. For example, certain character sets that are required to be used for transferring information over the Data Transfer Service (edifact level B DTS variant), or format rules that determine if an item is specified as a datetime, e.g. YYYYMMDDhhmmss.

- Data Item Owner – the ‘owner’ is the regulatory Code that manages changes to the Data Item. Should any change be made to the data item, it must be approved in accordance with the processes under the ‘owner’ code.



Additionally, if relevant all Data Enumerations. The enumerations table lists the valid values for the data item, and their description.

Data Enumerations	
Enumeration Value	Enumeration Description
01	Nebuliser and apnoea monitor
02	Heart, lung & ventilator
03	Dialysis, feeding pump and automated medication
04	Oxygen concentrator
08	Blind
09	Partially sighted
10	Do Not Use

Lastly, at the end of the page you will be able to find a list of Market Messages that contain that specific Data Item.

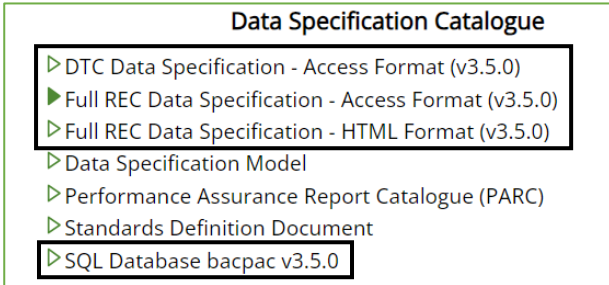
Market Messages		
Market Message Id	Local Catalogue Reference	Market Message Name
MM00128	D0225	Priority Services Details

By selecting a Market Message, you will be directed to its cover page. Please refer to section 2.2.2 to learn more about the Market Message.

3 Downloadable HTML, Access, and SQL database files

An SQL, HTML and Access format file is available as a download from the Data Specification Dashboard under Data Specification Catalogue. Once downloaded, the file can be opened in the HTML viewer of your choice (this is usually a web browser) or in Access. The HTML file contains all Market Messages and Data Items that are included within the REC Data Specification catalogue.

The file is a replica of the information held on the Digital Navigator and will be updated concurrently with the most recent Full REC Data Specification.



Click on your preferred method of viewing the Full REC Data Specification and it will automatically

SQL Database Access

As of February 2023, you can view the full REC Data Specification in SQL. To view this you will need to download and install the SQL Database bacpac v3.5.0 to access the same level of data.

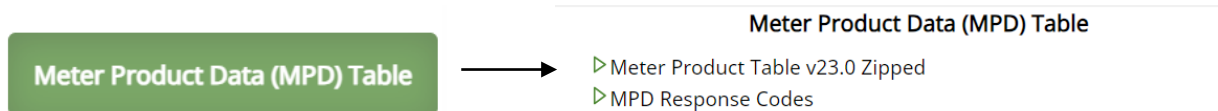
The bacpac file and a guidance document is available within the Data Specification dashboard in the below section.

Guidance Documents

- ▷ Legacy DTC Additional Information (Annex C)
- ▷ REC SQL Database - Guidance

Viewing the Meter Product Data

The Meter Product Data can be accessed within the Data Specification dashboard left panel, the latest MPD Tables can be downloaded and MPD Response codes.



Guidance on Meter Product Data can be found: [here](#)

4 Changes

Where an Approved Change Proposal will require a change to the Data Specification, the Code Manager will issue a pre-release setting out the proposed changes. You will be able to find pre-release information in the Data Specification Dashboard under “Data Specification Pre-Release Information”.



We will also issue a notification to those on our Data Specification mailing list when a new pre-release is published. This will also be confirmed within a REC weekly bulletin. Each pre-release will include details of what is to change and a database that you can use to automatically load the changes into your systems.

5 Common Questions

What are the Market Message Reference Numbers and Legacy References?

The REC Data Specification brings together a number of industry message catalogues that were previously defined in separate documentation. Each of these used their own unique reference system. For example, the DTN messages used D numbers such as the D0001 flow and the RGMA used letters, such as the ONJOB flow. These are described as the ‘legacy’ or local catalogue reference numbers.

To enable a single database to be created that brings all these messages together, the Market Message Reference was created. This enables us to give each message a unique identifier within the Data Specification.

The legacy references are also displayed in the data specification and there is no intention to remove them.

Is there an Access Database containing the data flows, like that provided under the MRA?

Yes, you can find a database containing all Market Messages and Data Items on the EMAR Dashboard. This can be used to automatically load the data specification items into your systems.

How do I find the RGMA Baseline?

The RGMA Baseline was a Supply Point Administration Agreement (SPAA) document. Under REC, the information that was contained in this document is set out within the Metering Operations Schedule. You can access this schedule via the schedules tab within the Digital Navigator. 'Schedules' tab of the EMAR Dashboard.

How does flow version control work?

Each flow has a version number, which you can see in the message header. For example, this flow is at version 001:

MM00001 - D0001 . 001 . Request Metering System Investigation

Where a significant change is made to a message (for instance if a new group is added to a message) then it might be decided that the flow should be incremented to a new version. For minor changes, the version number will remain the same.

How are mandatory/non-mandatory fields shown?

Mandatory fields are indicated with a '1', whilst optional (or non-mandatory) fields are indicated with a '0'. Some Market Messages also contain conditional fields, that are indicated with a 'C'. These fields should be populated as described in the associated condition.

How do I submit a Data Specification Change?

If the data item or message you are seeking to change is governed under another code, you should raise the change with that code. You can check the responsible code using the owner field on the Data Item or Market Message page.

If it is a REC owned item, then a REC Change Proposal must be raised to amend the data item. You can get support to raise a REC Change Proposal by messaging enquiries@recmanager.co.uk.

Where can I find the OSENG / RSENG file formats and processes?

These are part of the REC Data Specification. They are the Market Messages with the Owner "Gas Central Data Services Provider".

What special characters are valid in the DTN Market Messages?

ElectraLink, as operator of the DTN, publishes a User File Design specification document which details which special characters can be used within DTN flows.

Why are older flows not visible in the latest version of the Data Specification?

If certain flows from an older version of the data specification is removed in newer versions, they will not be visible. Therefore, information held in the databases will only be those that are operational. This is with the exception of flows that were removed from the DTC prior to REC go-live.

Are Trailing Zeros Enforced?

Trailing zeroes are enforced due to the need to match the defined decimal length.

The decimal length indicates how many digits must be present following the decimal point.

Where are the file header and footer structures defined?

The header and footer structures are defined by the transmission method rather than the data specification and are not unified in the REC Data Specification.

For flows sent over the DTN, the structures are detailed for in the DTS Transfer Handbook available on the Electralink website: [here](#)

For flows sent over IX, this is defined in the the UK Link Manual, under the UK Link Standard Guide (UKLBD3 – Section 5) documentation.

Note: The UK Link Manual is not a REC document. It can be accessed: [here](#)

Will the DTC Access format be withdrawn?

The DTC Access format was introduced. If we ever do transition away from the DTC format, we will engage with industry appropriately in order to understand impacts and ensure that risks are mitigated for users.

6 Distribution list

If you would like to receive email updates on the REC Data Specification, such as when a pre-release is published, email enquiries@recmanager.co.uk to be added to our "Data Specification Distribution List".

7 Additional Information

If you require further support on the REC Data Specification, please contact the REC Service Desk on: enquiries@recmanager.co.uk

If you would like to add yourself or your part for the Data Specification Distribution List,

please select the  icon from the dashboard, this will automatically open an email with the relevant mailing address to make this request.