GUIDE TO DATA SUBSCRIPTION

PROVIDES INSTRUCTIONS FOR USING THE DATA SUBSCRIPTION WEB INTERFACE IN THE EMMS MARKETS PORTAL.

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AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

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Further information

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Feedback

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CHAPTER 1 INTRODUCTION

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Purpose

Provides instructions for using the Data Subscription web interface in the EMMS Markets Portal.

Audience

This guide is relevant to Registered Participants using Data Interchange to replicate data between AEMO's systems and their participant DBMS.ality.

How to use this guide

- This document is written in plain language for easy reading.
- Where there is a discrepancy between the Rules, and information or a term in this document, the Rules take precedence.

You can find resources on AEMO's website: www.aemo.com.au.

- **Text in this format** indicates a resource on **AEMO's website**.
- Text in this format indicates a direct link to a section in this guide.
- Glossary terms are capitalised and have the meanings listed against them in the Glossary on page 40.
- *Italicised terms* are defined in the National Electricity or Gas Rules. Any rules terms not in this format still have the same meaning.
- Actions to complete in the web portal interface are **bold and dark grey**.

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What's in this guide

Chapter 2 About Data Subscription on page 3 explains what Data Subscription is, who can use it and the system requirements.

Chapter 3 How to use Data Subscription on page 8 explains how to use the interface, provides some example searches using keywords, how to filter files by Collection and Package, and explains the difference between subscribing to and activating files.

Chapter 4 Accessing on page 20 explains how to access Data Subscription.

Chapter 5 Data Model Changes on page 21 explains what you can do in the interface, what sort of files you can view, and how to download Data Model scripts and pdrLoader configuration files.

Chapter 6 Subscribe to Files on page 30 explains how to subscribe to files, including new Gas Data Model files.

Chapter 7 Unsubscribe from Files on page 33 explains the unsubscribe files interface.

Chapter 8 View the Catalogue on page 34 explains the view catalogue interface.

Needing Help on page 35 provides a list of Data Interchange resources, other relevant resources, how to get help from AEMO's Support Hub, and how to provide feedback.

Glossary on page 40 provides a list of abbreviations and terms.

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CHAPTER 2 ABOUT DATA SUBSCRIPTION

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Overview

Data Subscription contains the Data Model files to populate your local DBMS and the non-Data Model files you can also subscribe to. It is a component of Data Interchange (see Figure 1 on the next page) and the EMMS Markets Portal.

AEMO communicates changes to participants in release schedules and technical specification published on AEMO's website > Electricity or Gas IT systems > IT Change and Release Management.

You use it to:

1. Obtain files to populate your local DBMS, conforming to the Data Model.
2. Obtain Data Interchange software and Data Model scripts to build and maintain your own local DBMS.
   The Data Model is an industry standard database definition supplied and maintained by AEMO. It includes database tables, indexes and primary keys.
3. Download Data Interchange related documentation.
4. Easily identify the files you are currently subscribed to and those you are not.
5. Subscribe to the files to populate your local DBMS.
6. Unsubscribe from Legacy (redundant) files or files you no longer need.
7. View a catalogue of all files, Legacy and current.
8. For some file types, download sample files.

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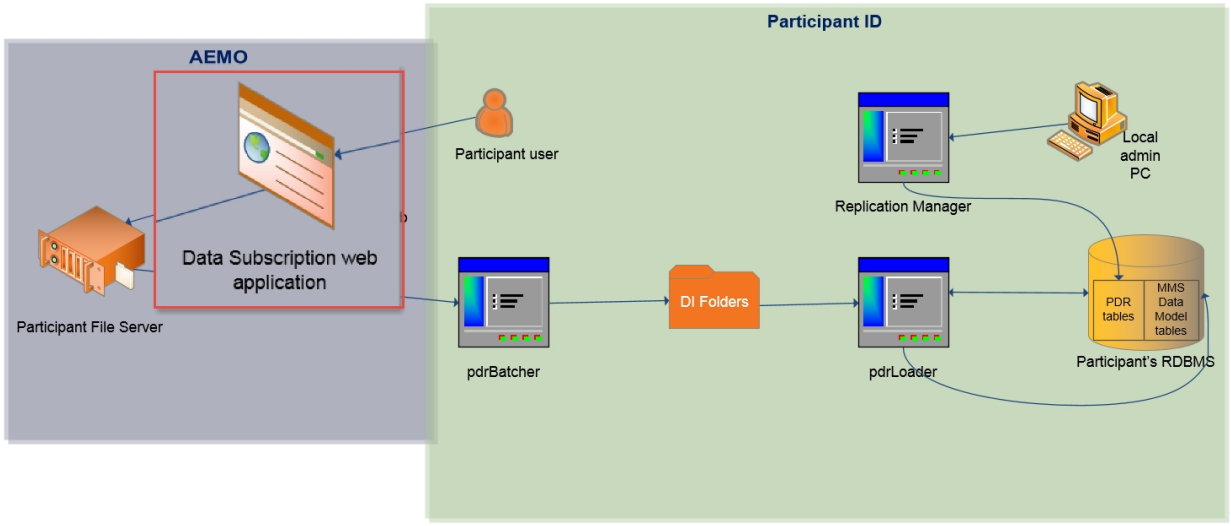
Figure 1 Standard Data Interchange environment



Who can use Data Subscription

Participant Users with access to Data Subscription include:

- Wholesale electricity and gas *Registered Participants*.
- IT staff responsible for setting up Data Interchange and maintaining IT systems for the Participant ID.

System requirements

You access the Data Subscription web application using a web browser. You require:

- The website address where the application is located on AEMO's network:
  - Pre-production: https://portal.preprod.nemnet.net.au
  - Production: https://portal.prod.nemnet.net.au
  - Markets Portal help: https://portal.preprod.nemnet.net.au/help

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- Either the current or previous versions of Microsoft Internet Explorer or Google Chrome.
- Access to MarketNet. If your company is a registered participant, you probably already have access because it is set up during the registration process. For more details, see **Guide to Information Systems**.
- A user ID and password provided by your company's participant administrator (PA) who controls access to AEMO's web portals. For more details see **Guide to User Rights Management**.
  PAs are set up during the registration process, if you don't know who your company's PA is, contact AEMO's Support Hub Email: supporthub@aemo.com.au

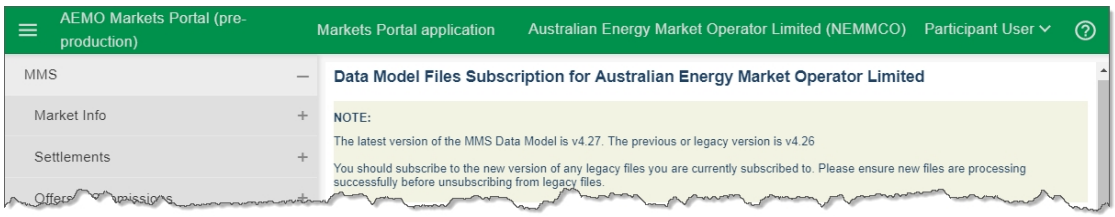
For the best experience, AEMO recommends using the current or previous version of Google Chrome.

Data Subscription runs on both Windows and Unix-like operating systems.

Environment access

The Markets Portal gives you a clear indication of the environment you are working in by providing a different background colour for the menu.

- The pre-production environment has a green menu background
- The production environment has a blue menu background.



Supported web browsers

Data Subscription runs on both Windows and Unix-like operating systems. To access the MSATS web portal, AEMO recommends the following web browsers:

Browser	Platform	Current	More information
Microsoft Internet Explorer	Windows	IE11	https://www.whatismybrowser.com/guides/the-latest-version/internet-explorer
Microsoft Edge (Microsoft recommended)	Windows 10	Edge	https://www.microsoft.com/en-au/windows/microsoft-edge
Google Chrome	All platforms	62 (Dec 2017)	https://www.whatismybrowser.com/guides/the-latest-version/chrome

User rights access

To access Data Subscription, participant users must have the appropriate user rights access. The access right determines the functionalities and transactions you can use to access the web portal, batch interfaces, FTP, and API services.

PAs authorise participant user access in MSATS. The initial PA is set up by the AEMO system administrator as part of the registration process.

Your company's Participant Administrator (PA) provides access to Data Subscription for participant users in the **MSATS>Administration>Maintain Entities** menu, using one of the following entities:

- EMMS - Data Interchange - Data Subscription - Maintain and View Data
- EMMS - Data Interchange - Data Subscription - View Data

If you don't know who your company's PA is, contact AEMO's Support Hub.

For more details about participant administration and user rights access, see Guide to User Rights Management.

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Set participant

Where a Participant User has user rights assigned by more than one Participant ID, the Participant User selects the Participant ID they want to represent using the **Set Participant** option. For help, see **Setting a Participant** in the Markets Portal Help.

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CHAPTER 3 HOW TO USE DATA SUBSCRIPTION

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Overview

The Data Model is updated in line with the release process for the wholesale system. The release cycle is normally every six months and usually there are changes to the Data Model, for example, new tables and new columns added to existing tables. After each new release of the Data Model, you use Data Subscription to:

1. Download and apply scripts to upgrade your existing database to the latest version of the Data Model.
2. Check if there are any new files to subscribe to. For help, see Files not subscribed to on page 26.
3. Check if there are any Legacy (redundant) files your are subscribed to. If yes, load the new versions of the files into your local DBMS at least once before unsubscribing. For an example of Legacy files, see Figure 6 on page 29.
4. Unsubscribe from Legacy files. For help, see.Unsubscribe from Legacy files on page 28.
5. Download any upgrades to the Data Interchange software (pdrLoader and pdrBatcher). For help, see **Release Schedules and Technical Specifications**.

For help upgrading, see Guide to upgrading a standard Data Interchange environment.

AEMO recommends subscribing to all files and activating or deactivating them so you have greater flexibility to access historical data.

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To receive the new release data, participants must keep their Data Model version in line with AEMO's. AEMO only supports the current and previous versions of software.

Populating a new DBMS

You use **Baseline Data** to populate a new Data Interchange environment. The data is in the same folder as the participant ID's file server folders. AEMO updates the \MarketData\Baseline folder daily with current baseline data.

Historical data

Older files are moved to the Reports Archive and kept for 13 months. The data is in csv format and conforms to the Data Model. To obtain historical data, see **http://www.nemweb.com.au/Reports/ARCHIVE/**.

Data Model documentation

You can find detailed explanation of the packages, tables, and files in the following documentation:

- **Data Model Report**: Describes all packages and tables.
- **Data Model table to file to report relationships**: describes the relationships between packages, tables, and files.

For details about other Data Interchange documents, see Related resources on page 35.

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Managing csv files

This section explains the difference between activation, deactivation, subscribing, and unsubscribing.

Activating and deactivating are different from subscribing and unsubscribing.

Subscribing

Subscribing means subscribing to files in the Data Subscription web application allowing delivery of the files to your participant folder on AEMO's Participant File Server where the pdrBatcher software can move them to your local folder.

AEMO recommends subscribing to all files and activating or deactivating them so you have greater flexibility to access historical data.

The files remain on AEMO's Participant File Server for approximately six months.

Unsubscribing

Unsubscribing from files means they are not delivered to your participant folder on AEMO's Participant File Server.

AEMO systems keep an archive of all subscribed-to files for approximately six months. Unsubscribing from files in the Data Subscription web application means you cannot access six months of historical files in the future.

Activate

Once the files arrive at your site, you can activate them so the pdrLoader loads them into your local Data Model database. If they are not activated, they remain in the folder at your local site.

Deactivate

Deactivating the files stops them loading into your local Data Model database. It does not stop the delivery of the files to your local folder.

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If you deactivate a file without unsubscribing, then AEMO continues to keep an archive of the file so you can retrieve and load it in the future.

If you unsubscribe from a file, it is not possible to retrieve and load in the future.

Replication Manager

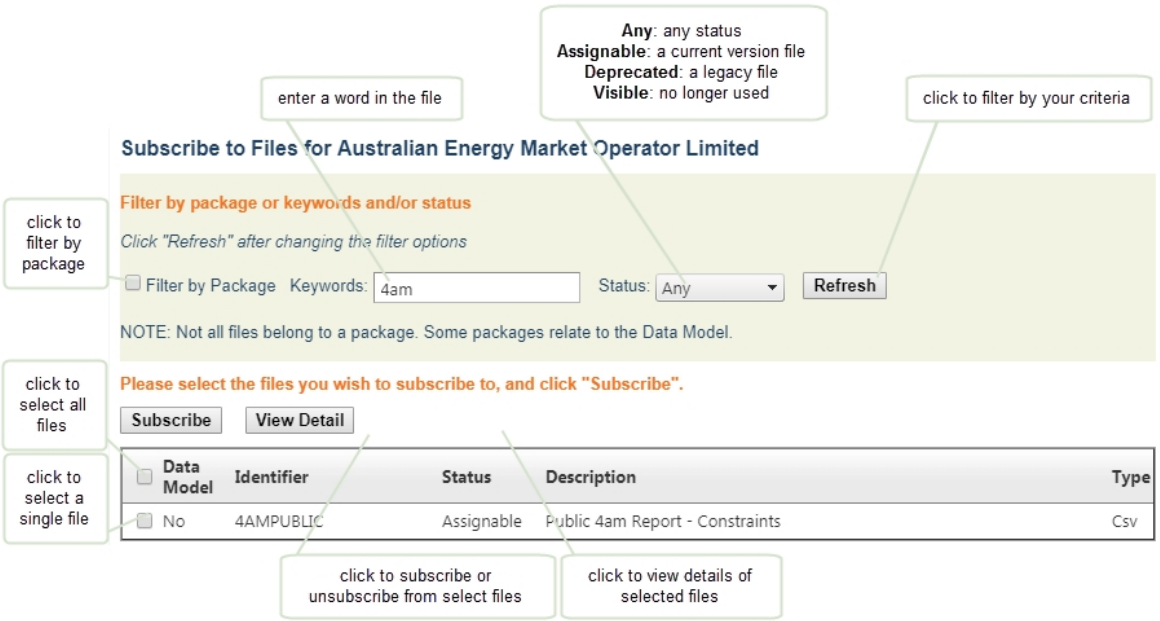
AEMO provides the Replication Manager software, a Windows-based application that runs locally, to activate or deactivate the loading of .csv files into their local Data Model database.

For help, see Replication Manager User Guide.

Using the interface

This section explains how to use the interfaces in Data Subscription.

Figure 2 Interface explanation



Explanation of fields

Table 1 Explanation of fields

Column Name	Description
	This check box shows which items are selected. By default, no items are selected. • To select one file, click the check box beside the filename. • To select all files, click the check box in the header row.
Data Model	This column indicates if a file is compatible with a local DBMS conforming to the Data Model. • Yes = you **can** store the file in your local Data Model database. • No = you **cannot** store the data in your local Data Model database.
Identifier	The **Identifier** name is internal to EMMS and identifies the source of the data published in this file. Files replaced by a new version are renamed by adding **_LEGACY** to the end of the previous name, for example: `BIDMOVE_COMPLETE_LEGACY` This name is different to the Data Model Identifier name. To see the Data Model Identifier click the **View Details** option. For more details, see Data Model Identifier in Description below.
Status	Indicates the status of the file: • **Assignable**: a current version file. • **Deprecated**: a Legacy file that becomes redundant next time the file is updated.
Description	Provides a description of the file contents. The description is also updated once a file becomes a legacy version. The Data Model Identifier is not specifically displayed on this interface, but if it differs from the Identifier name, it is included in the Description field in italics, preceded by **DM**. For example, if the **Identifier** is SETTLEMENTS_LEGACY and the Data Model Identifier is SETTLEMENTS then (DM.SETTLEMENTS) displays.
Type	Indicates the file type. At present, all files are csv format.

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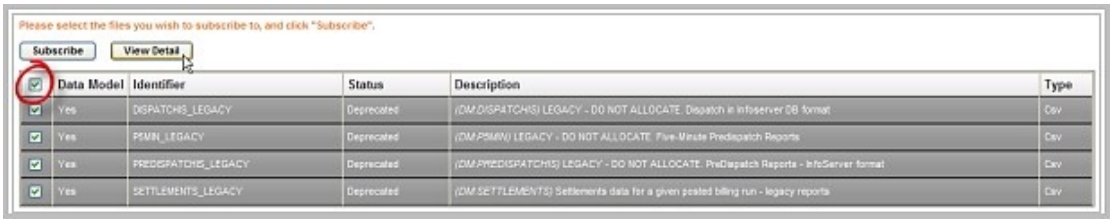
Subscribing and unsubscribing

This section explains how to subscribe and unsubscribe from files in the interfaces.

For help with terms, see Managing csv files on page 10.

1. In the grid, select or deselect your files and click **Subscribe**. For help with the interface, see Figure 2 on page 11 and Table 1 on the previous page.

   You can use the select-all check box to tick all the items or select each item individually.



2. Review the selected files. Click **<<Back** to return to the previous interface if you want to change your selection. Otherwise, click **Subscribe** again.

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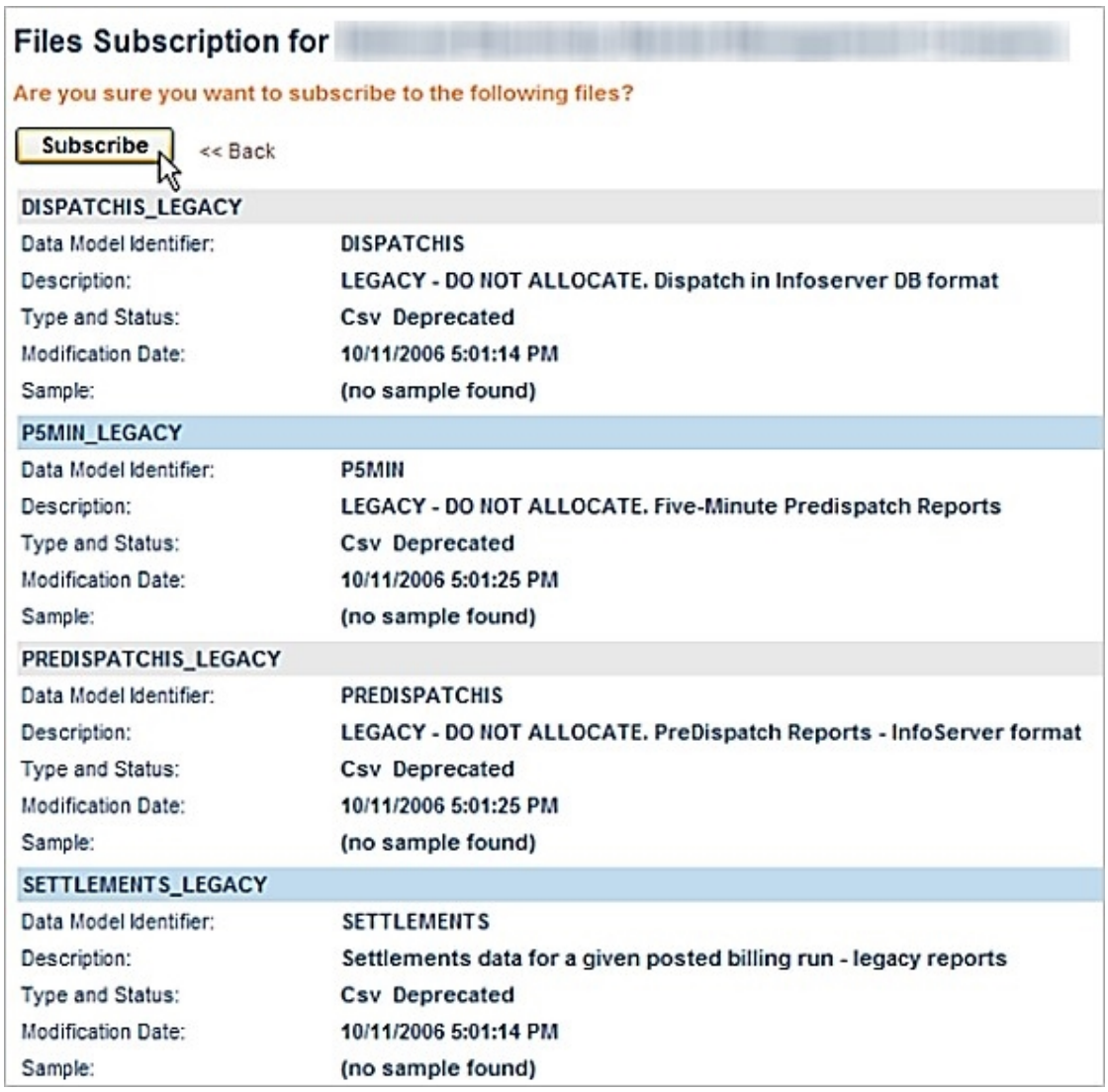

3. A success message displays if the subscription is successful.

Filter or search by keywords or status

You can look for specific files or group of files by filtering the list:

- **Filter by Package**: Select to see only files in a certain package.
- **Keywords**: Takes a combination of free text

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- **Status**: Any: any status, Assignable: a current version file, Deprecated: a legacy file, Visible: no longer used.

For help, see Interface explanation on page 11.

Rules

- You can only use one filter option at a time.
- Searches are not case sensitive.

Filter by Collection and Package

This section describes how to find files belonging to a Collection or Package. A **Package** is a subset of a **Collection** and contains several Data Model tables, files, and reports. However, not all files are part of the Data Model so they are not part of a Package. Table 2 below describes each Collection.

Table 2 Collection explanation

For explanation of the packages, tables, and files, see Data Model Report and Data Model table to file to report relationships.

Collection	Description
Default Subscriptions for new NEM participants	The file subscriptions applied when a new NEM participant is registered.
Default Subscriptions for new gas participants	The file subscriptions applied when a new GSH or participant is registered.
Data Model versions	Filter for files belonging to each Electricity or Gas Data Model version.
Not in data model	Files supplied by AEMO not supported by the Data Model (the data in the file cannot be stored in a Data Model database.

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To filter by Collection and Package:

1. Access Data Subscription, for help, see Accessing on page 20.
2. Click **Subscribe to Files**. For help, see on the previous page.
3. Select **Filter by Package**. For help, see Figure 3 on the next page.
4. In the **Collection** drop-down list, select the Collection. For help, see Table 2 on the previous page.
5. In the **Package** drop-down list, select the Package.
6. In the grid, do one of the following:
   a. Select **Data Model** to select all Data Model files you are not subscribed to.
   b. Select each file individually.
7. If you want to see more detail about the selected files, including the Data Model file identifier, click **View Detail**. For more information about the detail displayed, see on the previous page.
8. Click **Subscribe** to have the files delivered to your participant folder on the Participant File Share. For help, see Subscribing and unsubscribing on page 13.

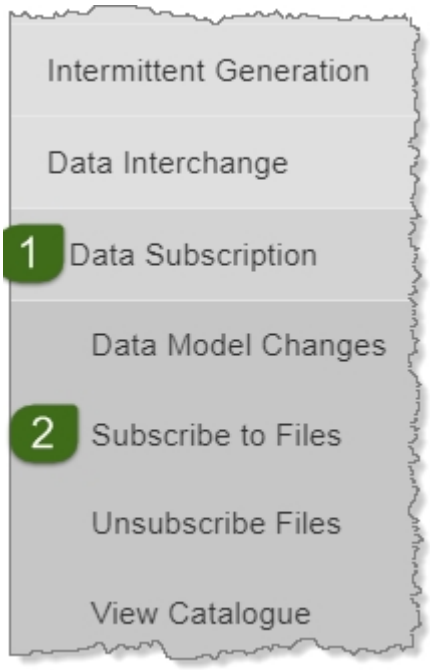

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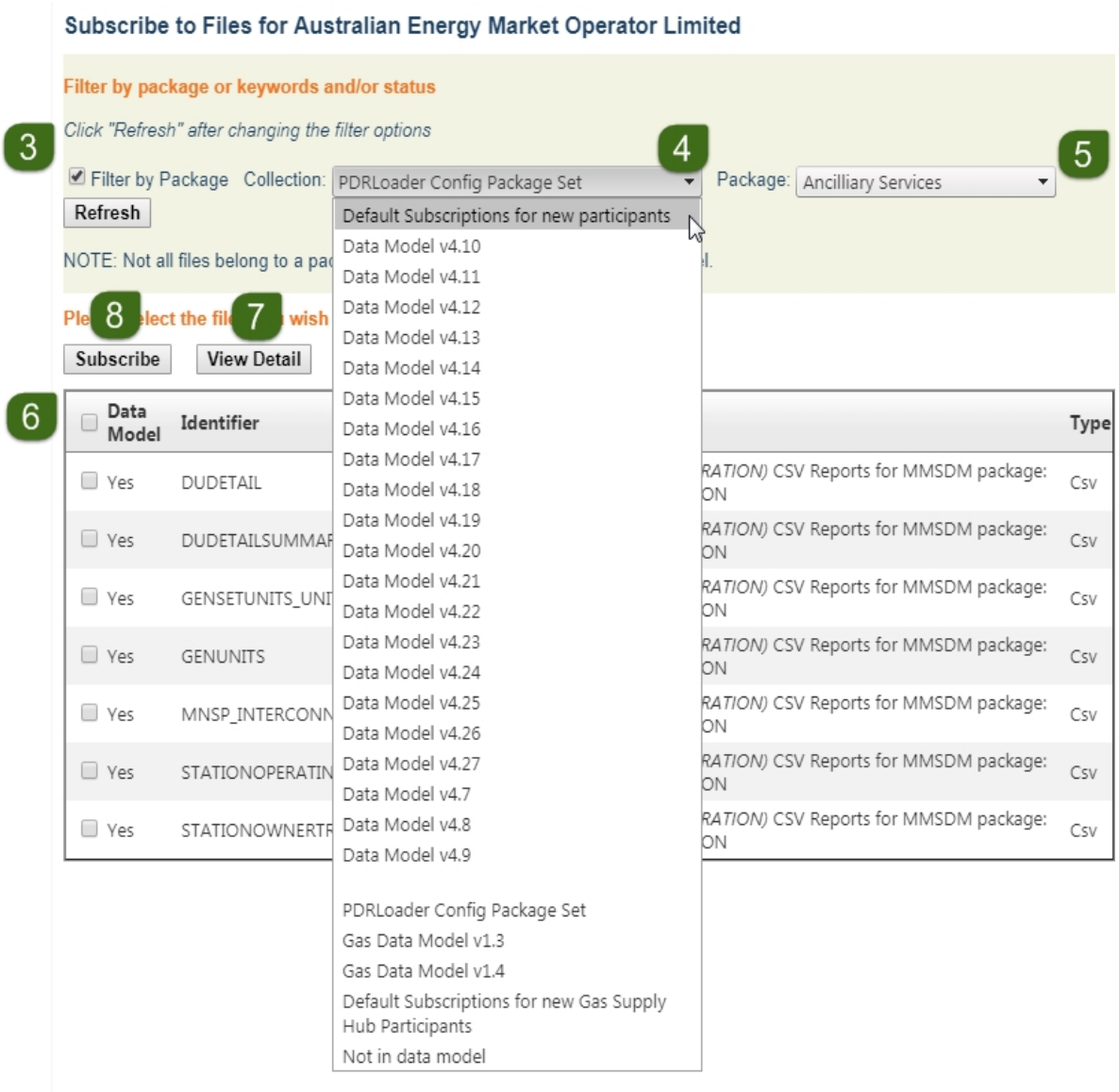
Figure 3 Filter by collection and package



Example searches

This example finds all files with a status of **Assignable** (current files). You can see in this example the Data Model supports some of these files but not all of them.

This example finds all files with the text **Dispatch** anywhere in the **Identifier** or the **Description** columns, where the status is **Any**.

This example finds all files with the text **public** anywhere in the **Identifier** or the **Description** columns, where the status is **Assignable**.

This example finds all files with the text **public** or the text **dispatch** anywhere in the **Identifier** or the **Description** columns, where the status is **Any**.

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Subscribe to Files for
Filter by package or keywords and/or status
Click 'Refresh' after changing the filter options
Filter by Package
Keywords: public dispatch
Status: Any
Refresh
NOTE: Not all files belong to a package. Some packages relate to the Data Model.
Please select the files you wish to subscribe to, and click "Subscribe".
Subscribe
View Detail
Data Model
Identifier
Status
Description
Type
No
4AIPUBLIC
Assignable
Public 4am Report - Constraints
Csv
No
4AIPUBLIC_LEGACY
Deprecated
LEGACY DO NOT ALLOCATE - Public 4am Report - Constraints
Csv

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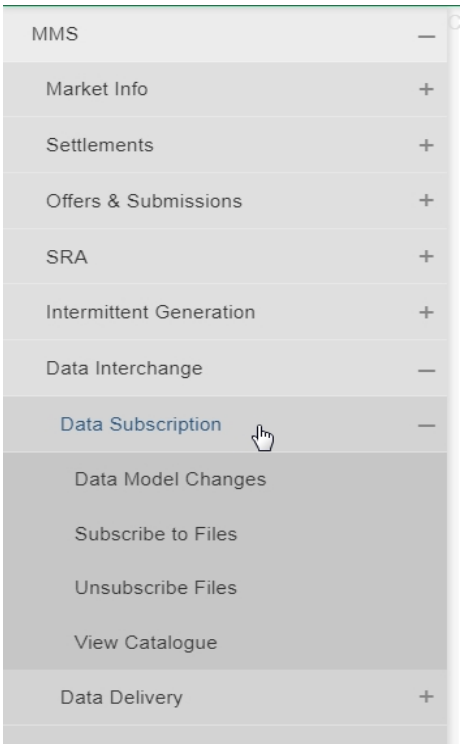
CHAPTER 4 ACCESSING

This chapter explains how to access the Data Subscription application in the EMMS Markets Portal.

Access Data Subscription

1. Using your web browser, access the EMMS Markets Portal, either:
   - Pre-production: **https://mms.preprod.nemnet.net.au**
   - Production: **https://mms.prod.nemnet.net.au**
2. Sign in using the user ID and password provided by your company's PA.
3. Click **MMS**, then Data Interchange, and then Data Subscription.



4. Next, you can:
   a. Download Data Model Scripts on page 23.
   b. Download pdrLoader Configuration files on page 24.
   c. Files not subscribed to on page 26.
   d. New Data Model files on page 27.
   e. Subscribe to current files on page 27.
   f. Unsubscribe from Legacy files on page 28.
   g. Subscribe to Files on page 30.
   h. Unsubscribe from Files on page 33.
   i. View the Catalogue on page 34.

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CHAPTER 5 DATA MODEL CHANGES

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About Data Model Changes

In this interface, electricity participants can do all the functions necessary to maintain an existing local DBMS based on the Data Model or create and populate a database from scratch.

For the steps to subscribe to new Gas Data Model files, see Subscribing to new Gas Data Model files on page 31.

Data Model Changes only supports the management of subscriptions to files for the current and Legacy versions of the Data Model.

The interface has three sections:

1. The **NOTE:** section provides information about the latest Electricity Data Model version and the immediate past Legacy version.
2. The **Data Model functions** section provides links to Electricity Data Model files.
3. The **Data Model scripts and documentation files** section provides links to data model scripts, guides (for example, set up and troubleshooting guides) and Data Model reports. For more details about the Data Interchange guides, see Related resources on page 35.

To view **Data Model Changes**:

1. Access Data Subscription, for help, see Accessing on page 20.
2. Click **Data Model Changes**. For an example of the interface, see Figure 4 on the next page.

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Figure 4 Data Model Changes interface

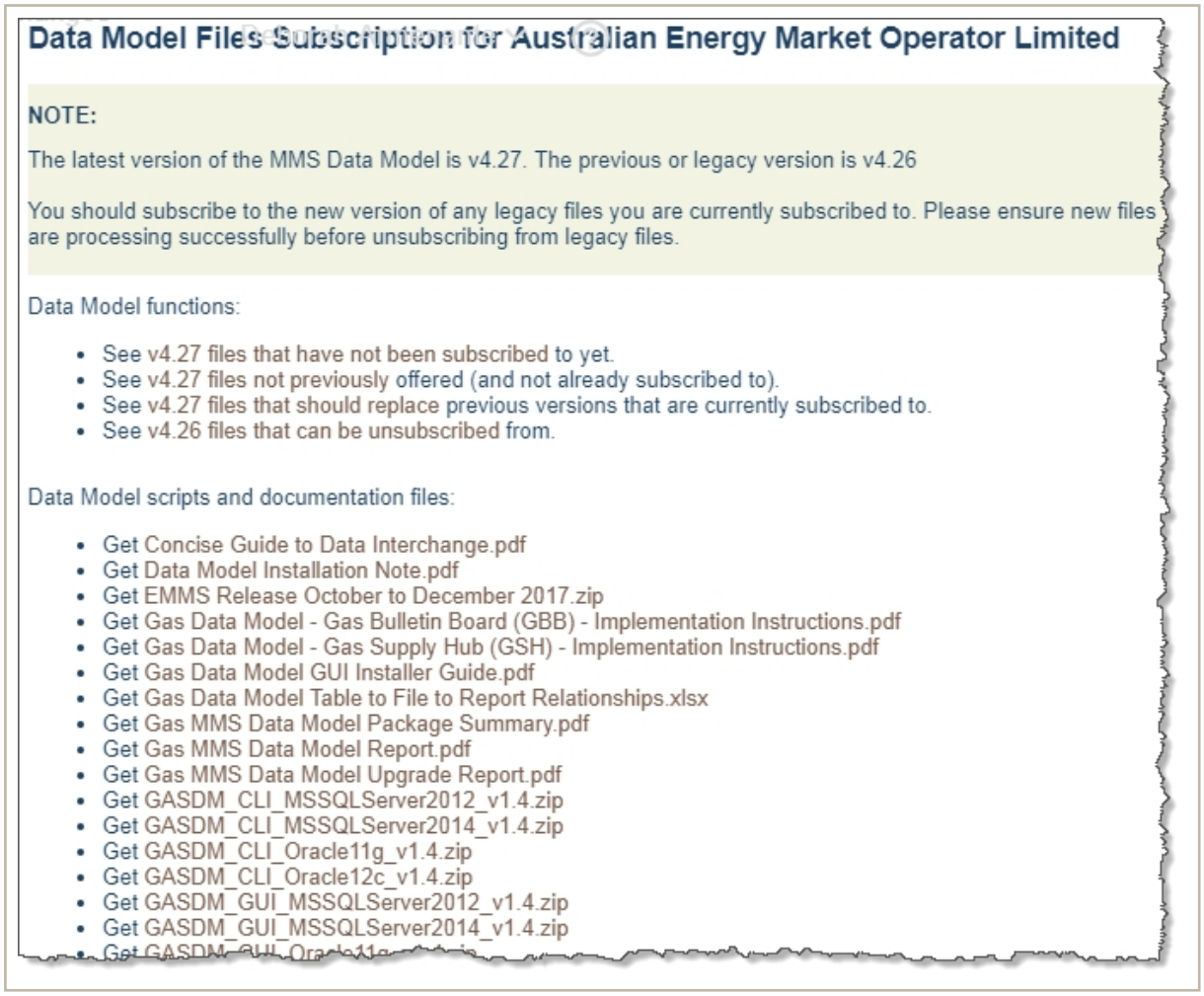
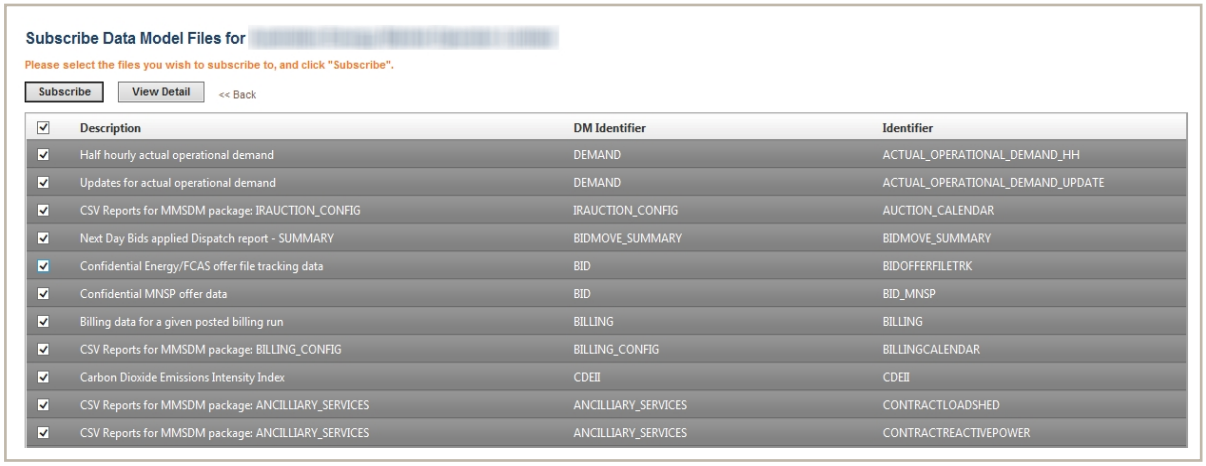


Figure 5 Subscribing to files interface



Description	DM Identifier	Identifier
Half hourly actual operational demand	DEMAND	ACTUAL_OPERATIONAL_DEMAND_HH
Updates for actual operational demand	DEMAND	ACTUAL_OPERATIONAL_DEMAND_UPDATE
CSV Reports for MMSDM package: IRAUCTION_CONFIG	IRAUCTION_CONFIG	AUCTION_CALENDAR
Next Day Bids applied Dispatch report - SUMMARY	BIDMOVE_SUMMARY	BIDMOVE_SUMMARY
Confidential Energy/FCAS offer file tracking data	BID	BIDOFFERFILETRK
Confidential MNSP offer data	BID	BID_MNSP
Billing data for a given posted billing run	BILLING	BILLING
CSV Reports for MMSDM package: BILLING_CONFIG	BILLING_CONFIG	BILLINGCALENDAR
Carbon Dioxide Emissions Intensity Index	CDEII	CDEII
CSV Reports for MMSDM package: ANCILLIARY_SERVICES	ANCILLIARY_SERVICES	CONTRACTLOADSHED
CSV Reports for MMSDM package: ANCILLIARY_SERVICES	ANCILLIARY_SERVICES	CONTRACTREACTIVEPOWER

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Table 3 Table 2: Explanation of subscribe to files interface

Column Name	Description
	Check box that shows which items are selected. By default, all items are selected on the Subscribe Data Model Files list. To select an item click the check box beside the filename. Clicking the check box in the header row selects all files.
Description	A short description of the contents of the file.
DM Identifier (Data Model Identifier)	The "external" name of the file, that is, the name that is used as part of the published filename.
Identifier	The internal name of the file, within the EMMS System that identifies the source of the data published in this file.

Download Data Model Scripts

The Data Model scripts create the database tables, indexes, and primary keys in the relevant database platform. Only the most recent version of the Data Model scripts are available in Data Subscriptions. They are in zip files that include documentation.

To see which database management systems are currently supported, see AEMO's website > Electricity or Gas IT systems > Data Interchange.

To download the Data Model scripts:

1. Access Data Subscription, for help, see Accessing on page 20.
2. Click **Data Model Changes** and under **Data Model scripts and documentation files**, click the link for your relevant database and installer type, for example:
   - The GUI Installer provides a graphical interface that walks you through the setup, for example: **Get MMSDM_GUI_Oracle12c_v4.25.zip.** For help, see **Data Model GUI Installer Guide**.
   - The Client installer provides the scripts to run from the Command line, for example:**Get MMSDM_CLI_Oracle12c_v4.25.zip.**. For help, see **Data Model Installation Note**.

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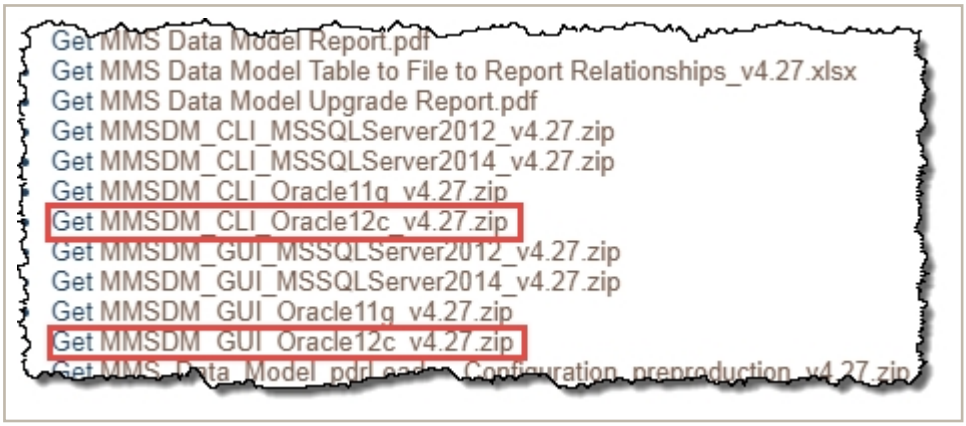

3. Save the file to a suitable local folder.
4. For help installing the files, see one of the guides mentioned above.

Download pdrLoader Configuration files

The **Data Model pdrLoader Configuration production.zip** contains the configuration files allowing the pdrLoader to read and load the data files into a database based on the Data Model.

Within the downloaded file there is a zip file containing the data required for setting up initial configuration files and a zip file containing the files required to upgrade an existing configuration.

Only the most recent version of the loader configuration is available from Data Subscriptions.

To download the current version of the Data Model Loader Configuration production files:

1. Access Data Subscription, for help, see Accessing on page 20.
2. Click **Data Model Changes** and then the pdrLoader configuration zip file. In the example below the file is: **Get MMS_Data_Model_pdrLoader_Configuration_production_v4.25.zip**.

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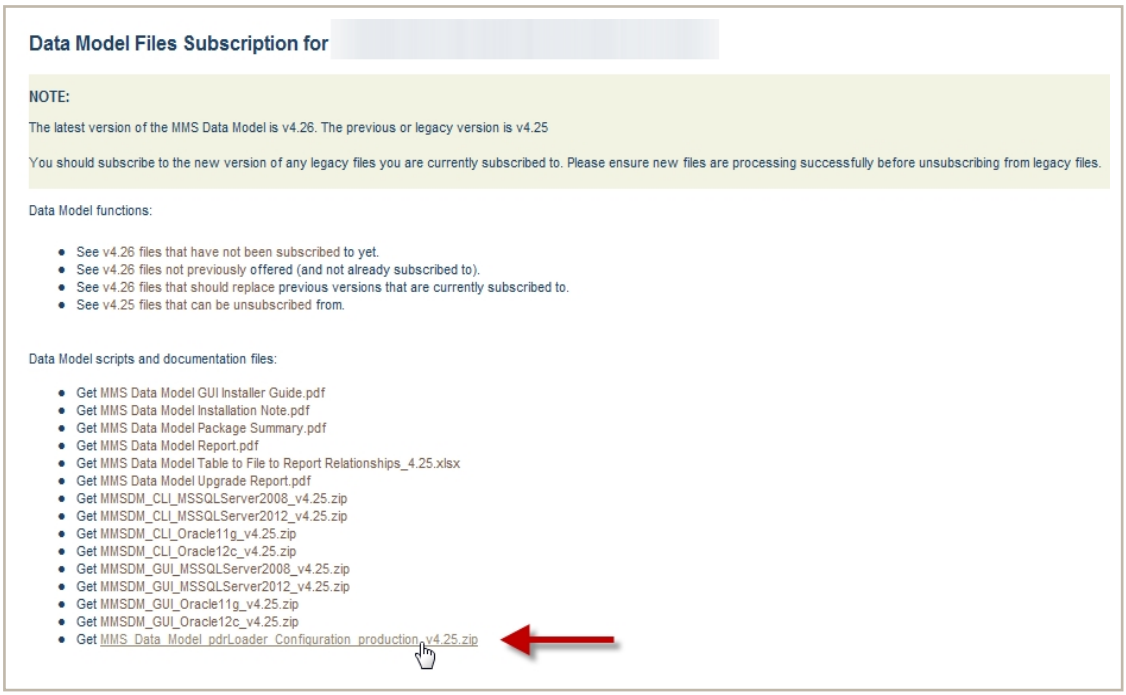
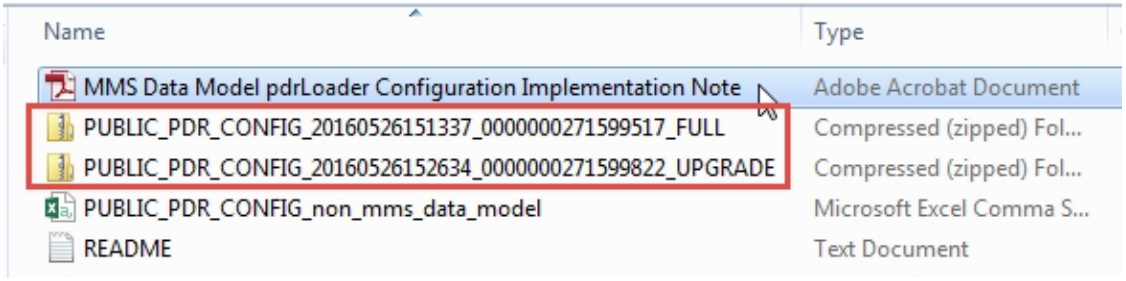


3. Save the file to a suitable local folder.
4. Inside the file are two .zip files:
   a. **FULL**: Use for setting up an intial configuration.
   b. **UPGRADE** :Use to upgrade an existing configuration.



5. For help installing the file, see **Data Model Loader Configuration Implementation Note**.

Prior to starting any installation you must read the README.txt.

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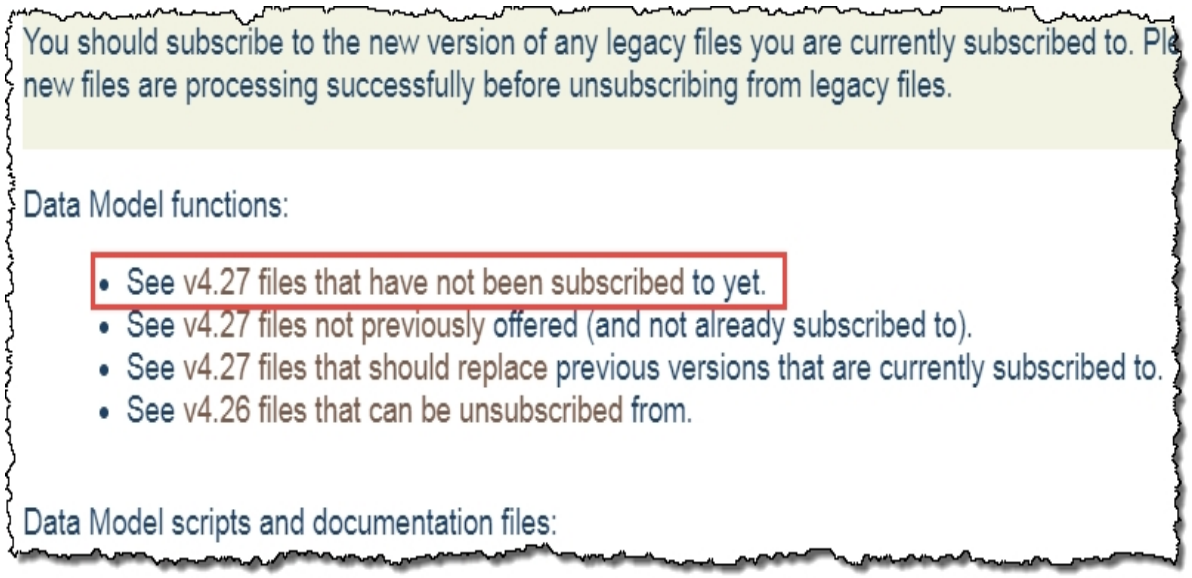
Files not subscribed to

This option, **files that have not been subscribed to yet** displays all files you are not subscribed to, including new, replacement, and any other files. By default, all files are selected. For an explanation of the fields, see above.

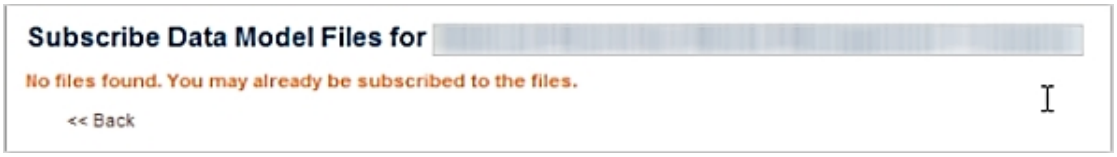
Use this option:

- If you subscribe to all files, when a new version of the Data Model is released. It lists all new files you need to subscribe to, including files that replace existing files.
- If you have previously subscribed to a subset of data but now want to subscribe to the full Data Model set.

For help using the interface, see How to use Data Subscription on page 8.



If you see the following message, you are already subscribed to all available Data Model files.



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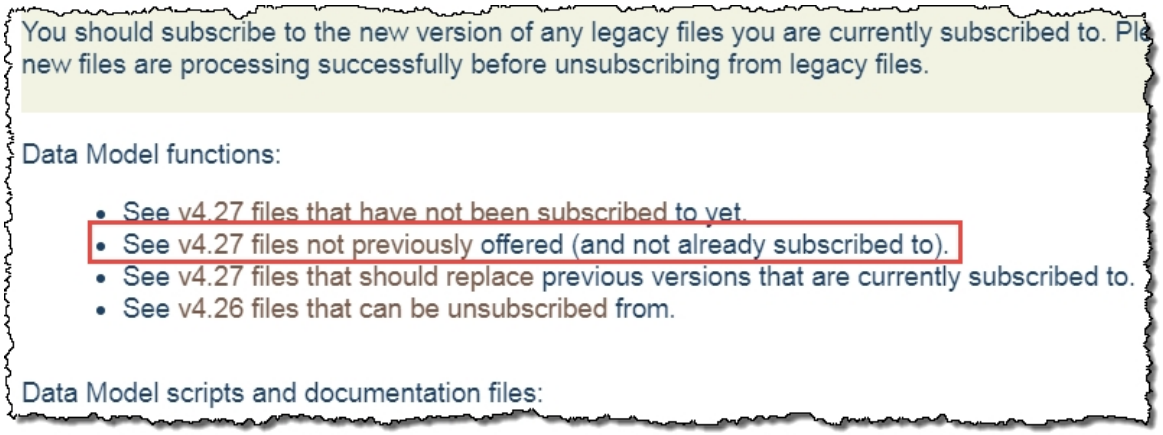
New Data Model files

This option, **files not previously offered (and not already subscribed to)** displays only files introduced in the current Data Model version you are not subscribed to. For an explanation of the fields, see above.

It is useful for participants that subscribe to a subset of the Data Model files and are only interested in subscribing to the new files relevant to their needs.

The difference between this option and the **files that have not been subscribed to yet** is you only see new files, not all available files.

For help using the interface, see How to use Data Subscription on page 8.



Subscribe to current files

This option, **files that should replace previous versions that are currently subscribed to** displays files released in the current Data Model version that replace previous versions you are subscribed to. For an explanation of the fields, see above.

For example, if files **a** and **b** were both updated in the current version but you only subscribed to file **a**, you only see the updated version of file **a**, not the updated file **b**.

This option is useful for participants only subscribed to a subset of the Data Model files.

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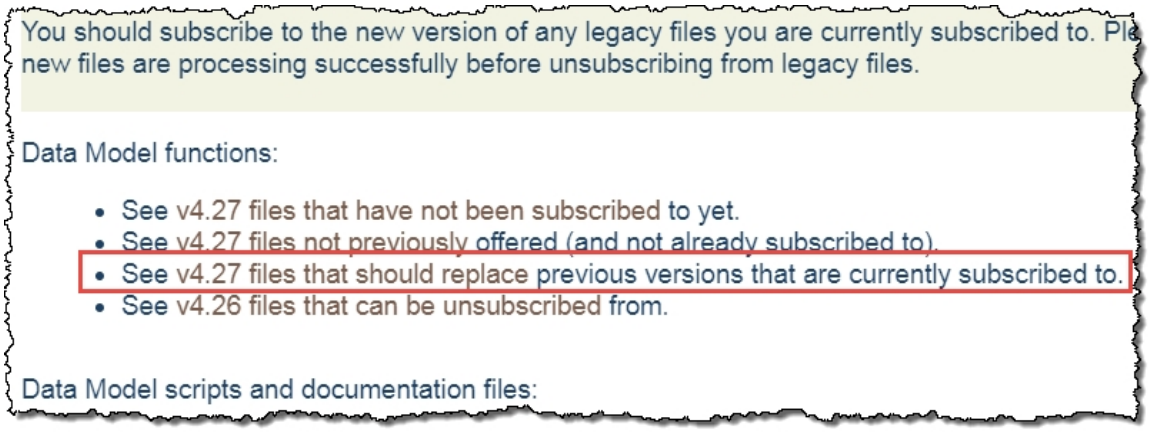
If you want to see new files you are not subscribed to, use the **files not previously offered (and not already subscribed to)** option then identify the replacement files you need to subscribe to.

For help using the interface, see How to use Data Subscription on page 8.



Unsubscribe from Legacy files

This option, **files that can be unsubscribed from** displays files that are redundant after the release of the current Data Model version. For an explanation of the fields, see above.

AEMO recommends you load the new files into your local DBMS before Unsubscribing from any Legacy files.

It is useful for all participants, whether you subscribe to the full data set or only a subset.

Choose this option after using any of the following options:

- **files that have not been subscribed to yet.**
- **files not previously offered (and not already subscribed to).**
- **files that should replace versions that are currently subscribed to.**

For help using the interface, see How to use Data Subscription on page 8.

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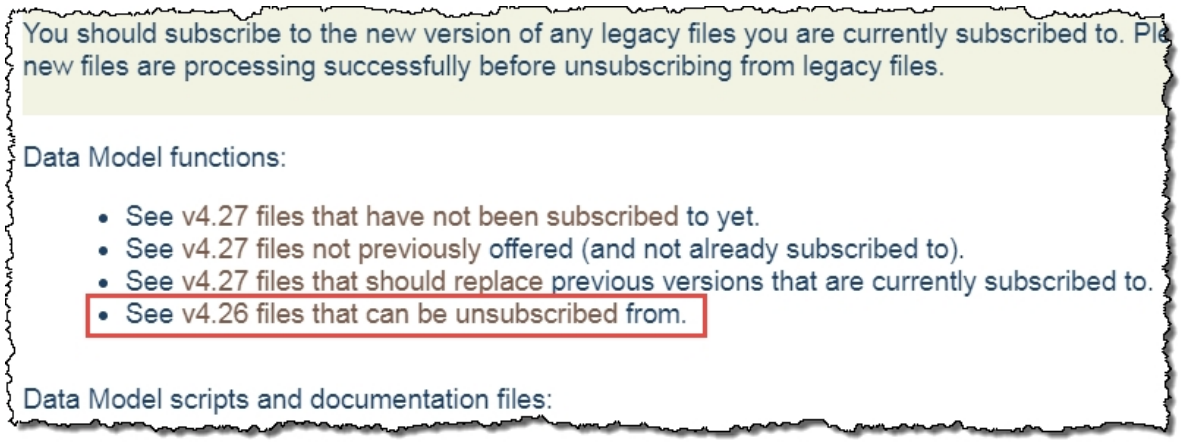
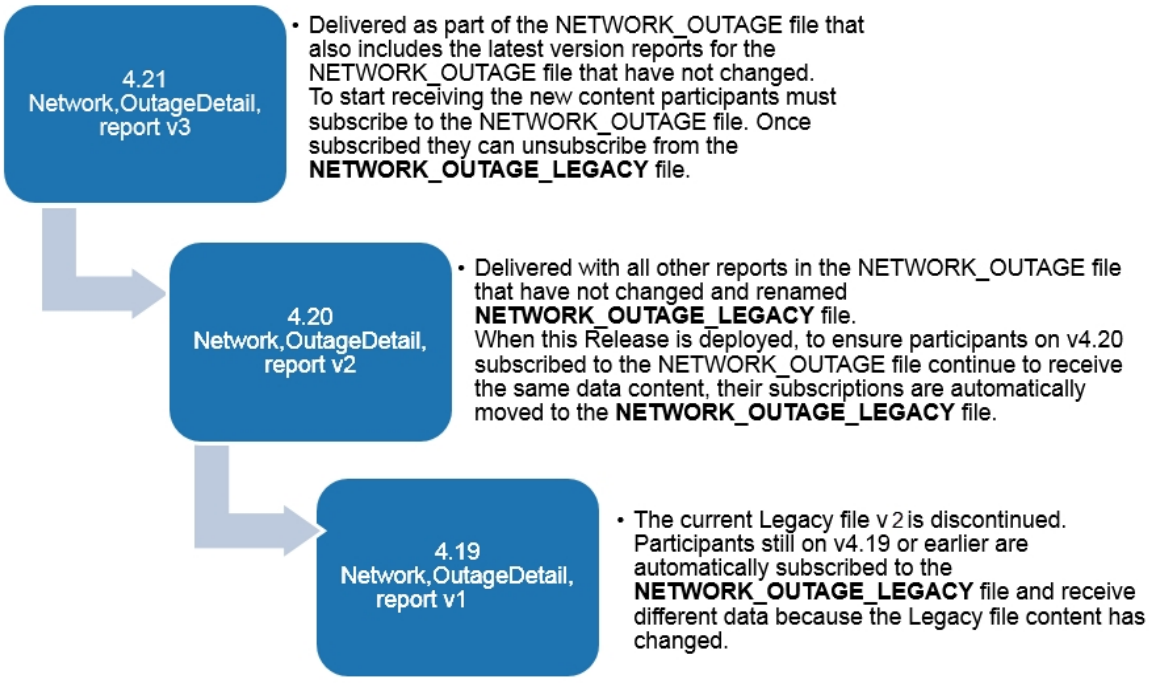


Legacy file explanation

Figure 6 Legacy file example



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CHAPTER 6 SUBSCRIBE TO FILES

This section explains how to use the **Subscribe to Files** interface that allows you to subscribe to any files you are not currently subscribed to.

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Subscribing to new Gas Data Model files 31

About subscribing to files

From this interface you can subscribe to:

- Current version Data Model files
- Files not supported by the Data Model and not accessible from the **Data Model Changes** interface.
- Legacy files compatible with the previous version of the Data Model that remain available. Legacy files remain available until they are made redundant (for example, when a new Legacy version of a file takes it place). For an example, see Chapter 6 above.

For help deciding how to subscribe, see Table 4 on the next page.

The easiest way is to subscribe to these files using the options in the Data Model Changes menu.

When any new files replacing existing files are successfully loaded into your local DBMS, you can unsubscribe from Legacy files. See Unsubscribe from Legacy files on page 28.

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Table 4 Subscribe to files decision table

If	Do this
You subscribe to all available files	See Subscribing to all current Data Model files not already subscribed to.
You only subscribe to a subset of files	First, choose: **files not previously offered (and not already subscribed to)** to see the files available with the new version of the Data Model. For more details, see Subscribing to newly-offered current Data Model files not already subscribed to. Then, choose: **files that should replace previous versions that are currently subscribed to** to see a list of new files that supersede previous files you are subscribed to. For more details, see Subscribing to current Data Model files that replace previous versions.

Subscribing to new Gas Data Model files

This topic explains how to subscribe to new Gas Data Model files after you have upgraded your Data Interchange environment.

For help using the interface, see How to use Data Subscription on page 8.

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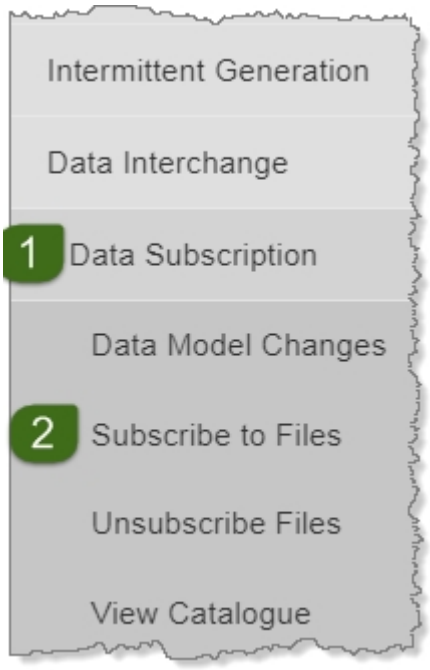
To subscribe to new files:

1. Access Data Subscription, for help, see Accessing on page 20.
2. Click **Subscribe to Files**. For help, see on the previous page.
3. Select **Filter by Package**.
4. In the **Collection** drop-down list, select the new **Gas Data Model** version.
5. In the **Package** drop-down list, select the Gas Data Model package.
6. In the grid, do one of the following:
   a. Select **Data Model** to select all Data Model files you are not subscribed to.
   b. Select each file individually.
7. If you want to see more detail about the files, including the Data Model file identifier, click **View Detail**. For more information about the detail displayed, see on the previous page.
8. Click **Subscribe** to have the files delivered to your participant folder on the Participant File Share.



AEMO recommends subscribing to all files and activating or deactivating them so you have greater flexibility to access historical data.

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CHAPTER 7 UNSUBSCRIBE FROM FILES

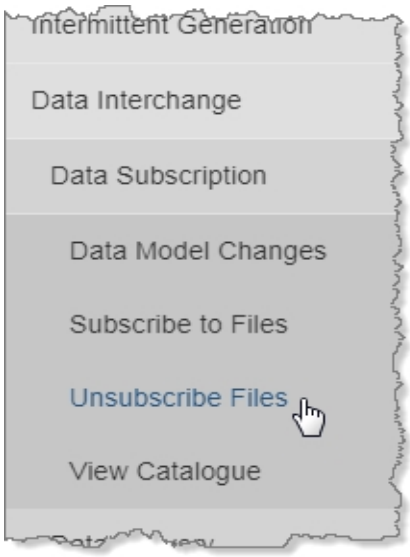
Use **Unsubscribe Files** when you want to:

- View the files you are subscribed to
- Unsubscribe from a specific file.
- Unsubscribe from a group of files.

This interface displays only the recent Legacy files, making it easier to identify the ones you need to unsubscribe from.

If you want to unsubscribe from files made redundant in a recent release, use files that can be unsubscribed from in the Data Model Changes interface.

For help using the interface, see How to use Data Subscription on page 8.



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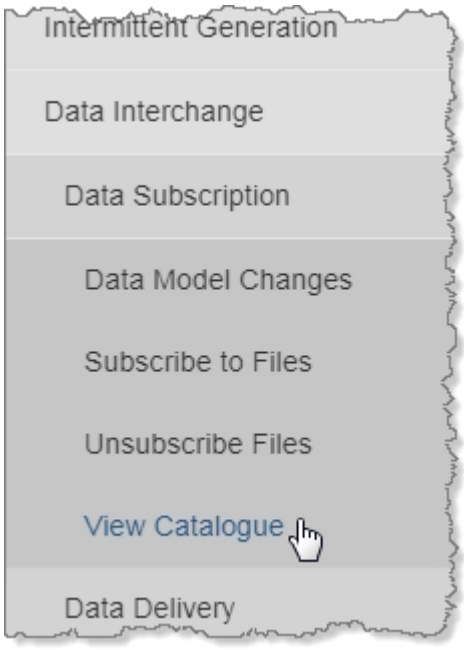
CHAPTER 8 VIEW THE CATALOGUE

This interface displays all files available for subscription, including Data Model and non-Data Model files. You can:

- View the entire list of available files.
- View further file details.

For help using the interface, see How to use Data Subscription on page 8.

It includes the same functions for filtering by keywords and status.



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Related resources

You can find resources on AEMO's website: www.aemo.com.au.

Data Interchange software and resources

You can find Data Interchange software and associated documentation in the following locations:

1. Releases directory on the participant file share: FTP to 146.178.211.25 > Data Interchange, pdrBatcher, pdrLoader, or Replication Manager.
2. Data Subscription web application in the energy market systems web portal:
   - Production: **https://portal.prod.nemnet.net.au**
   - Pre-production: **https://portal.preprod.nemnet.net.au**
3. IT Systems & Change web page on **AEMO's website**.

Data Interchange resources

Baseline Data, data files in csv format, suitable for loading to participant's DBMS conforming to the Data Model. You can use baseline data to populate an initial Data Interchange environment.

The data is in the same folder as the participant ID's file server folders. AEMO updates the \MarketData\Baseline folder daily with current baseline data.

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Changing your password on the Participant Server, explains the password rules and how to change your password to access the Participant Server.

Comprehensive guide to Data Interchange, that includes options to consider before set up, different configuration options, and data recovery options.

Concise Guide to Data Interchange, assists participants to understand AEMO's Data Interchange software, describing how to set up a standard Data Interchange environment to replicate data between AEMO's wholesale energy market systems and participants' local DBMS conforming to the electricity or gas Data Models.

Data Model GUI Installer Guide, covers the installation of the Data Model using one of the GUI Installers.

Data Model Installation Note, lists the minimum infrastructure and steps required for setting up the Data Model on a suitably prepared database. For notes relevant to each DBMS, see the README.txt in the software bundle.

Data Model Loader Configuration Implementation Note, contains instructions for installing pdrLoader configuration files.

Data Model Package Summary, summarises the Data Model report. For each package, it lists the tables in the package, together with a brief summary and entity diagrams. There are separate summaries for electricity and gas.

Data Model Report, provides full details of all packages and tables in the Data Model. There are separate reports for electricity and gas.

Data Model Table to File to Report Relationships Workbook, details the relationships between the Data Model tables, files, and reports.

Guide to Data Sharing, explains how to share data with another participant ID using Data Interchange software.

Guide to Participant Data Replication Batcher (pdrBatcher), covers the setup and use of the Participant Data Replication Batcher (pdrBatcher) to move files between AEMO and participants' local folders.

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Guide to Participant Data Replication Loader (pdrLoader), covers the setup and use of the Participant Data Replication Loader to parses csv files into a local DBMS conforming to the Data Model.

Guide to setting up a standard Data Interchange environment, explains how to set up a standard Data Interchange environment.

Guide to Troubleshooting Data Interchange, provides assistance with troubleshooting Data Interchange issues.

Guide to upgrading a standard Data Interchange environment, explains how to upgrade a standard Data Interchange environment.

Historical Data, older files are moved to the Reports Archive and kept for 13 months. The data is in CSV format and conforms to the Data Model. To obtain historical data, see **http://www.nemweb.com.au/Reports/ARCHIVE/**.

Release Schedules and Technical Specifications, information about projects and changes to AEMO's IT systems affecting participants. AEMO provides this information as a service targeting business analysts and IT staff in participant organisations to assist with their technical implementation.

Replication Manager User Guide, manages the configuration settings and monitors the status of the replication of data from AEMO’s systems to a participant’s DBMS conforming to the Data Model.

Other relevant resources

Guide to Information Systems, comprehensive guide providing an overview of AEMO's market systems used by participants. It is relevant to IT decision making during participant onboarding and provides an understanding of the IT systems requiring set up.

Guide to User Rights Management, assists Participant Administrators to manage their participant user's access to AEMO’s systems. It also explains how to set up single user IDs for use with the Set Participant function in AEMO’s web portals.

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AEMO's Support Hub

Contacting AEMO's Support Hub

IT assistance is requested through one of the following methods:

- Phone: 1300 AEMO 00 (1300 236 600)

  For non-urgent issues, normal coverage is 8:00 AM to 6:00 PM on weekdays, Australian Eastern Standard Time (AEST).
- Email: supporthub@aemo.com.au

AEMO recommends participants call AEMO's Support Hub for all urgent issues, whether or not you have logged a call in the Customer Portal.

Information to provide

Please provide the following information when requesting IT assistance from AEMO:

- Your name
- company name
- Participant ID
- System or application name
- Environment: production or pre-production
- Problem description
- Screenshots

For AEMO software-related issues please also provide:

- Version of software
- Properties or log files
- Replication Manager support dump and instance name (if Data Interchange problem)

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Feedback

Your feedback is important and helps us improve our services and products. To suggest improvements, please contact AEMO's Support Hub.

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GLOSSARY

AEMC
Australian Energy Market Commission

AEMO
Australian Energy Market Operator

AEMO Communication
An email from AEMO to a distribution list of Registered Participant contacts broadcasting NEM-related information.

AES
Advanced Encryption Standard

AEST
Australian Eastern Standard Time

API
Application Programming Interface; a set of clearly defined methods of communication between various software components.

API Gateway
Used to push or pull messages for delivery using RESTful APIs.

API Protocol
A B2B e-Hub and EMMS delivery method.

csv
Comma Separated Values; a file format for data using commas as delimiters.

Data Interchange
A set of cooperating applications used to replicate data between AEMO's energy market systems and a participant's DBMS conforming to the MMS Data Model.

Data Model
The definition of the interface to participants of data published by AEMO for gas or electricity. A database conforming to the Data Model can contain a local copy of all current participant-specific data recorded in the main database. The Data Model includes database tables, indexes, and primary keys.

Data sharing
Each participant ID can share their data with other participant IDs, subject to an authorised request. Implementing data sharing means the full Data Interchange data set (including private data) for the requesting participant ID is made available to another participant's sets of folders in the EMMS file server, as nominated in the request. The sharing of data is for both pre-production and production. A data sharing requirement may emerge, for example, due to a merger with, takeover of, or sale of another registered participant. The requirement may be to use one company's IT system to manage access, and process the data for two or more participant IDs using just one participant IDs set of folders in the EMMS file server. The Data Interchange web application in the Markets Portal provides the status of any data sharing agreements you have implemented.

Data Subscription
A web application in the Markets Portal used to subscribe to Data Interchange files and to obtain the latest MMS Data Model. These files are typically csv files containing public data and participant's private data. AEMO recommends participant use of the Data Interchange suite of products, supplied by AEMO, to automate receiving and storage of the files to their systems. AEMO provides working sample software for FTP access (Participant Batcher) to MarketNet and working sample software for Data Interchange.

DBMS
Database Management System

DI
Data Interchange

Discontinued Report
When a Legacy version of a file replaces an existing Legacy file, some versions of the included reports may change. The replaced report versions are referred to as discontinued. Participants on Discontinued versions may be impacted if a report is discontinued in a Legacy file they are receiving.

Discontinued version
Refers to the tables, files, and reports deployed two versions ago. AEMO only supports the

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current and previous Data Model versions.

DUID
Intermittent Generation Unit ID

DWGM
Declared Wholesale Gas Market (Victoria)

EMMS
Wholesale Electricity Market Management System; software, hardware, network and related processes to implement the wholesale energy market.

File
Logically groups one or more reports delivered as a physical file, for example BILLING. Participants subscribe to files in the Markets Portal > Data Interchange > Data Subscription interface.

FTP
File transfer protocol

FTP Gateway
Uses FTP protocol to deliver communications.

FTP Protocol
A B2B e-Hub and EMMS delivery method.

GBB
Gas Bulletin Board

GSH
Gas Supply Hub

HTTPS
Hypertext Transfer Protocol Secure, adds the security capabilities of SSL to standard HTTP communications.

IPWAN
Internet protocol wide area network

LAN
Local area network

Latest version
Refers to the tables, files, and reports deployed in the latest Data Model release.

Legacy file
Currently supported but no longer updated. If a report is changed in a release, the previous version of the report and the latest version of other reports in the file are delivered from the Legacy file. AEMO automatically moves participants' subscriptions to the Legacy file. This ensures participants on previous Data Model versions subscribed to files that change, continue to receive the same data. Once upgraded, and the new data is received, you can unsubscribe from the Legacy files. Participants still on discontinued file versions may receive different content if the Legacy file content has changed.

MarketNet
AEMO's private network available to participants having a participant ID

MCL
Maximum Credit Limit

MSATS
Retail Market Settlement and Transfer Solution

MSUG
Market Systems User Group

MTPASA
Medium-term Projected Assessment of System Adequacy; 2 years worth of data.

MW
Megawatt

NEL
National Electricity Law

NEM
National Electricity Market

NER
National Electricity Rules

NGR
National Gas Rules

NMI
National Metering Identifier for electricity

PA
participant administrator

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Participant's DBMS
Contains the data received from AEMO into tables matching the Data Model.

Participant File Server
The publishing point from AEMO systems to participant systems. Each participant is allocated an account and access to private and public areas. Participants are responsible for interfacing with the participant file server.

Participant ID
Registered participant identifier; A company can have more than one Participant ID.

Participant User
An end-user, using AEMO's participant energy market systems to view and retrieve information on behalf of a participant ID. The participant users access rights are created and maintained by the participant ID's Participant Administrator.

Participant user ID
The user ID you used to login to the system.

pdr
Participant Data Replication

pdrBatcher
Software responsible for transferring files to and from AEMO's participant file server to the participant's local Data Interchange folders. It can be installed in any environment supporting Java.

pdrLoader
Software responsible for loading files to and from participant's local Data Interchange folders to the participant's DBMS. It can be installed in any environment supporting Java.

POP
Point of presence (in network)

Pre-production
AEMO's test system available to participants

Previous version
Refers to the tables, files, and reports deployed in the previous Data Model release.

Production
AEMO's live system

Registrable capacities
Registered participant categories, such as customer, generator, network service provider, trader, reallocator, special participants, market participant, and intending participants.

Report
A data report that loads into a data model table. Identified by its type, subtype, and version. For example: BILLING,BILLINGASPAYMENTS,2

RRP
Region reference price

Rules
National Electricity or Gas Rules (NER or NGR)

SCADA
Supervisory Control and Data Acquisition

Set Participant
Where a Participant User has user rights assigned by more than one participant ID, the Participant User can select the participant ID they want to represent using the Set Participant option in the web portals.

SSL
Secure Socket Layer, a protocol for encrypting information over the internet.

STTM
Gas short term trading market

TI
Trading Interval

URM
User Rights Management; see the Guide to URM on AEMO's website

VPN
Virtual Private Network

zip
A file containing business data with filename extensions of .zip, are compressed, and contain one file with a filename extension of ..XML. The ..XML file contains the XML coded message data.

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