

## **Guide to MSATS Web Portal**

Version 13.00 June 2021

Provides assistance using the Market Settlement and Transfer Solution (MSATS) web portal

# Important Notice

#### **PURPOSE**

This Guide to MSATS Web Portal (Guide), prepared by the Australian Energy Market Operator (AEMO), provides guidance for MSATS under the National Electricity Rules (Rules).

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#### **VERSION HISTORY**

Version 13.00 Updated with current AEMO branding. Last update: Tuesday, 22 June 2021 3:17 PM

#### DOCUMENTS MADE OBSOLETE

The release of this document changes any previous versions of Guide to MSATS Web Portal.

#### **FEEDBACK**

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

# **Contents**

Introduction	
Purpose	1
Audience	1
How to use this guide	1
What's in this guide	2
Need to Know	4
Related rules and procedures	4
Assumed knowledge	4
Prerequisites	5
User rights access	5
Setting a participant	6
Ombudsman	7
About ombudsman	7
Ombudsman reports	7
Participants	15
About participants	15
Participant information	15
Participant contacts	20
Participant schema	28
FTP system status	34
Transactions	36
About transactions	36
Change requests	37
Objections	75
Notifications	85
Request for data	91
NMI Information	97
About NMI information	97
NMI discovery	98

NMI master	119
NMI master summary	122
Participant relationships	129
Profile Preparation	131
About profile preparation	131
Profile data source	132
Profile methodology	135
Profile area	137
Profile name	140
Data Load Import	143
About data load import	143
Participant inbox	143
Participant outbox	148
Participant hub queue	155
Participant archive	157
Participant inbox archive	160
Dayzip download	162
Metering Data	165
About metering data	165
Data search	166
Interval metering data search	172
Interpreting retrieved results for interval meters	176
Interpreting interval time	187
Settlement Data	192
About settlement data	192
Settlement scenarios	192
Reports and Alerts	197
About reports and alerts	197
Viewing and requesting CATS reports	199
MDM reports	201
Queue monitoring	207

Administration	213
About administration	213
Codes maintenance	213
Rules maintenance	223
System calendar	225
User Profile	227
About user profile	227
Change password	227
Password format	229
Edit user profile	229
View user profile	230
Needing Help?	232
Clearing your cache	232
Setting a participant	234
Supported web browsers	235
AEMO's support hub	236
Feedback	236
Terms	237
Rules terms	237
Glossary	237
References	238
Index	240

# Introduction

Purpose	1
Audience	1
How to use this guide	1
What's in this guide	2

# **Purpose**

Assists market participants to use the MSATS web portal functions.. Assists market participants to use the MSATS web portal functions.

### **Audience**

This guide is relevant to Registered Participants requiring an understanding of MSATS functionality..

# How to use this guide

- Read this guide along with the Technical Guide to MSATS.
- This guide 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.

- Where there is a discrepancy between the relevant Procedures and information or a term in this document, the Procedures take precedence.
- The references listed throughout this document are primary resources and take precedence over this document.
- 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.
- Text in this format is an action to complete in the Markets Portal interface.
- Glossary and Rules terms are capitalised and have the meanings listed against them in the Rules, Rules terms on page 237, and Industry Terminology.
- The numbers on the example screenshots throughout this guide refer to the numbered explanations in the topic.
- Diagrams and screenshots are provided as an overview. In case of ambiguity between a diagram and the text, the text prevails.
- References to time are Australian Eastern Standard time (AEST) unless otherwise specified.
- References to currency are to Australian dollars.
- · References to time in:
  - The Retail Electricity Market Procedures (except the B2B Procedures) are to Australian Eastern Standard Time (AEST).
  - The B2B Procedures refer to the local time applicable at the Site where a B2B Transaction relates.
- The expressions within one Business Day or next Business Day in the B2B Procedure: Service Order Process mean by 11:59 pm the next Business Day.

# What's in this guide

Need to Know on page 4 explains related rules, procedures, assumed knowledge, prerequisites, Participant User rights access, and about Set Participant.

Ombudsman on page 7 assists with using the Ombudsman menu to view reports about NMI enquiries made by the Ombudsman.

- Participants on page 15 assists with viewing and maintaining participant information such as participant contacts, participant XML schema, and FTP system status.
- Transactions on page 36 assists with change requests, objections, notifications, requests for data, and the management of Standing Data.
- NMI Information on page 97 explains how to use the NMI Information menu to identify a specific connection point for Settlement, auditing, and discovery purposes.
- Profile Preparation on page 131 assists authorised Participant Users to perform Metering Data Management (MDM) functions such as: defining profile methods and areas, defining data sources, and creating profiles.
- Data Load Import on page 143 assists with messages between the MSATS system and participant systems.
- Metering Data on page 165 explains the Metering Data component of MSATS used for the receipt, storage and aggregation of Metering Data.
- Settlement Data on page 192 assists authorised Participant Users to view Settlement data including viewing Settlement scenarios, preparing and committing Settlement data cases.
- Reports and Alerts on page 197 explains the use of CATS (Consumer Administration and Transfer Solution) and MDM (Metering Data Management) reports.
- Needing Help? on page 232 provides assistance clearing your web portal cache, supported web browsers, and guidance for requesting assistance from AEMO.
- Terms on page 237 has Rules terms and references to glossary terms used throughout this guide.
- References on page 238 has a list of resources mentioned in this guide. You can find most of them on AEMO's website.

# **Need to Know**

Related rules and procedures	ŀ
Assumed knowledge	ļ
Prerequisites5	5
User rights access	5
Setting a participant6	3

# Related rules and procedures

Australian Energy Regulator (AER), www.aer.gov.au.

**Current National Electricity Rules**: https://www.aemc.gov.au/regulation/energy-rules/national-electricity-rules/current.

**Retail and Metering procedures**: https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/market-operations/retail-and-metering.

Retail Electricity Market Procedures - Glossary and Framework:

https://aemo.com.au/-/media/files/electricity/nem/retail\_and\_metering/metering-procedures/2017/retail-electricity-market-procedures--glossary-and-framework-final.pdf?la=en

# Assumed knowledge

This guide assumes you have knowledge of the:

- Retail Electricity Market Procedures Glossary and Framework
- aseXML Standards

- MSATS Procedures
- Technical Guide to MSATS

# **Prerequisites**

To use MSATS you must be a Registered Participant.

# User rights access

To access MSATS, 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.

The entity to access each MSATS menu item is described in each chapter.

Participant Administrators (PAs) authorise Participant User access in MSATS. The initial PA is set up by the AEMO system administrator as part of the registration process. For more details about participant administration and user rights access, see Guide to User Rights Management.

The initial PA is set up by the AEMO system administrator as part of the registration process. If you don't know who your company's PA is, contact AEMO's support hub.

# Setting a participant

Where a Participant User has user rights assigned by more than one Participant ID, they select the Participant ID they want to represent using the **Set Participant** option, without having to log out, change IDs and log in again.

For help, see Setting a participant on page 234.

The participant you are acting for displays in the Markets Portal interface. For permission to use other participant IDs with Set Participant, see your company's PA.

When you are using the Set Participant function, you can only log into the Markets Portal once on the same computer.

# **Ombudsman**

About ombudsman	. 7
Ombudsman reports	. 7

### About ombudsman

Using the Ombudsman menu, Participant Users can download reports on NMI enquiries made by ombudsman companys.

### Ombudsman reports user rights access

Participant Administrators control access to Ombudsman reports using the Ombudsman Enquiry entity in the Administration menu in the MSATS Web Portal.

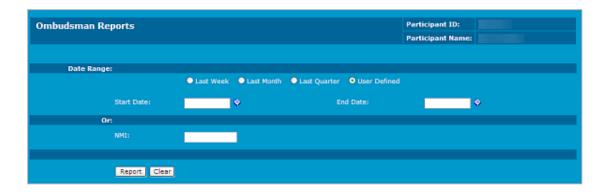
# Ombudsman reports

The reports menu provides a report of ombudsman enquiries made on your company. You can request a report by NMI or by date range.

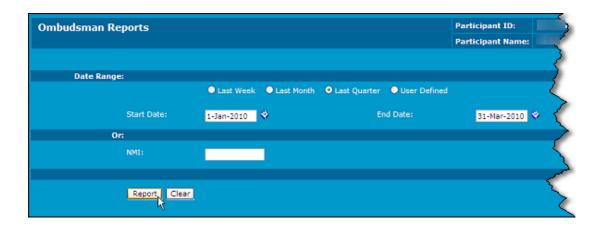
### Requesting a date range report

To request a date range report:

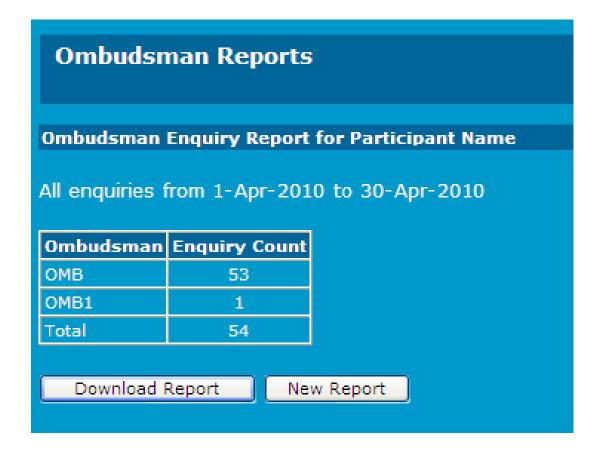
- On the main menu, click Ombudsman and then click Reports.
- ▼ Ombudsman
  Reports
  ▶ Partic Hants
- 2. The Ombudsman Reports interface displays. Select a Date Range to report on by choosing one of the following radio buttons:
  - Last Week: enters a Date Range for the last calendar week (Monday to Sunday).
  - Last Month: enters a Date Range for the last calendar month.
  - Last Quarter: enters a Date Range for the last quarter.
  - User Defined: enter your own Start Date and End Date by clicking the calendar icons and selecting dates from the MSATS calendar (this is the default selection).



3. Click Report.



- 4. The Ombudsman Enquiry Report for the requested date range displays:
  - Ombudsman company making the enquiry.
  - Enquiry Count: how many enquiries were made for the selected date range in descending order.



#### You can also:

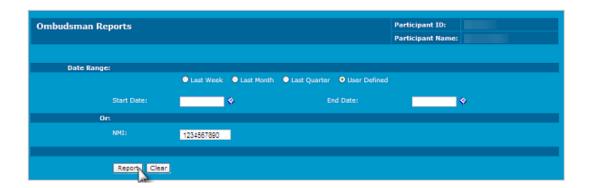
- Download the report.
- Click Download Report. To learn more, Downloading an Ombudsman report on page 12.
- · Request a new report.
- Click New Report to return to the Ombudsman Reports search interface.

### Requesting a NMI report

 On the main menu, click Ombudsman and then click Reports.

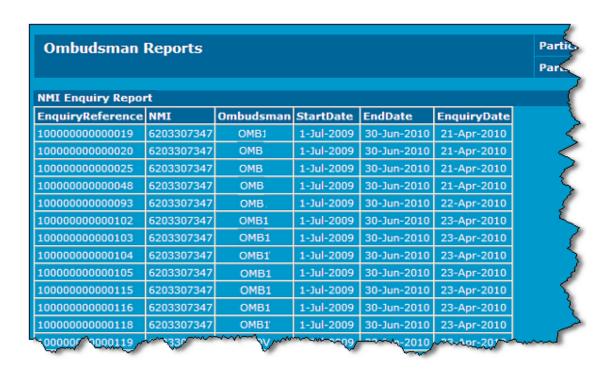


2. The Ombudsman Reports interface displays, type the NMI number and click Report.



- 3. The Ombudsman Enquiry Report for the requested NMI displays:
  - Enquiry Reference numbers for which your companys has received a notification.
  - NMI number
  - Ombudsman company making the enquiry.
  - Start and End Dates: the requested search dates of the NMI enquiry.
  - Enquiry Date: the date the ombudsman company made the NMI

enquiry.



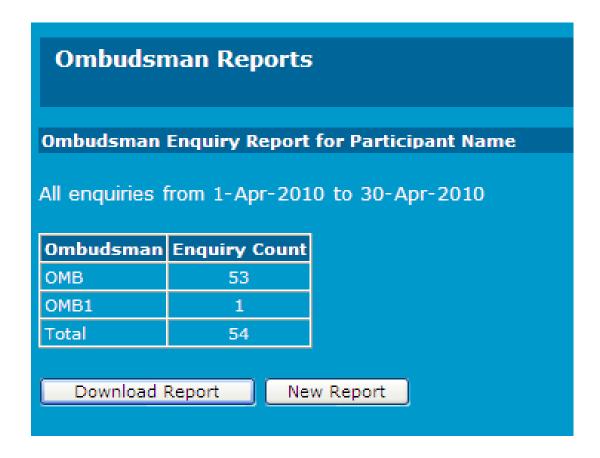
#### You can also:

- Download the report.
- Click Download Report. To learn more, Downloading an Ombudsman report on the next page.
- Download Report
- · Request a new report.
- Click New Report to return to the Ombudsman Reports search interface.
- New Report

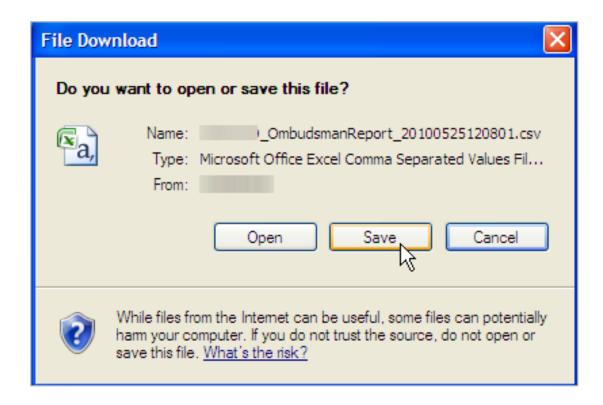
### Downloading an Ombudsman report

This section assumes that you have followed the steps for requesting a NMI or date range report. See Requesting a NMI report on page 10 and Requesting a date range report on page 8.

1. On the Ombudsman Reports interface, click Download Report.

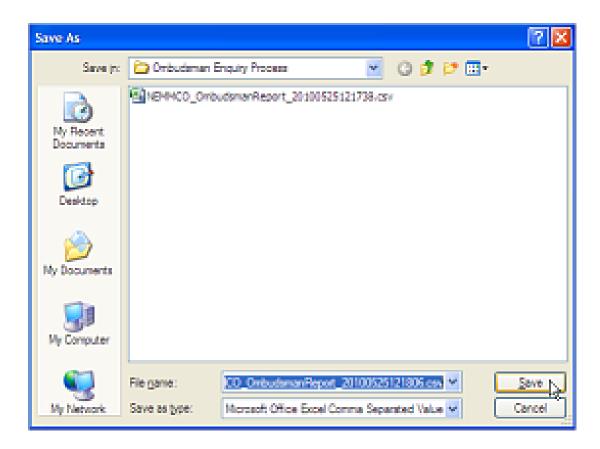


2. The File Download interface displays.



#### 3. Do one of the following:

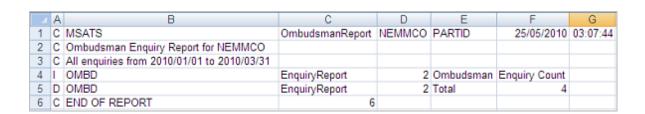
- To open the file in a spreadsheet, such as MS Excel, click Open.
- Click Save and, in the Save As window, choose a location on your local computer to save the file in .CSV format. Use a text editor application (for example, Notepad) or spreadsheet (MS Excel) to open the saved file.
   The standard file name format is ParticipantID\_OmbudsmanReport\_DateTime.csv.
- Alternatively, click Cancel to return to the Ombudsman Report interface.



4. Opening the file displays the report with the same data displayed on the Ombudsman Enquiry Report interface.

If your data does not download, a message displays **Data download was not successful**; retry your download again.

Figure 1 Ombudsman report example



# **Participants**

About participants	15
Participant information	15
Participant contacts	20
Participant schema	28
FTP system status	34

# **About participants**

The Participants menu is used to view and maintain participant information. Depending on your access rights, you may see other submenus in your Participant menu than the ones explained in this guide.

If you are an administrator, for information regarding other submenus, see Guide to User Rights Management.

# Participant information

# Participant Information user rights access

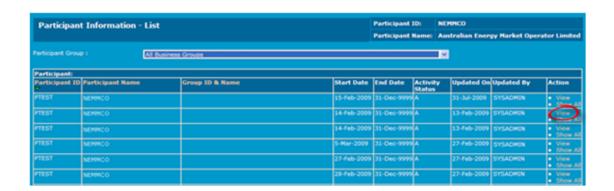
Participant Administrators control access to Participant Information using the Participant Information entity in the Administration menu in the MSATS Web Portal.

### Viewing detailed information

- On the main menu, click Participants and then click Participant Information.
- 2. The Participant Information List interface displays. For help understanding the fields, seeParticipant information fields on the next page. To view further participant information, click View in the Action column next to the Participant ID.

Participants
Create Participants
Role Assignment
Participant Information
Participant Contacts
Participant Schema
FTP System Status
Batch Configuration

Click the Participant ID, Participant Name, or Group ID & Name column headings to sort the list by ascending or descending order.



3. The Participant Information - View interface displays the participant's detailed information. For help understanding the fields, see Table 1 on the next page.

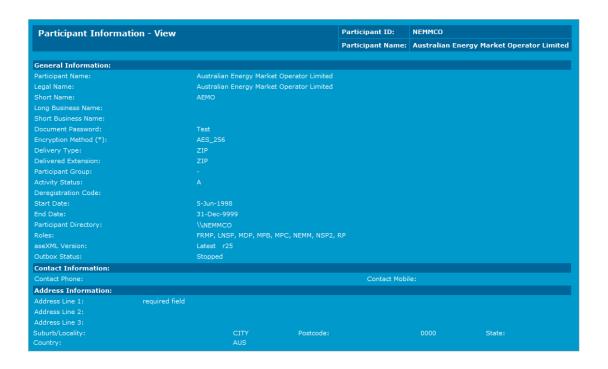


Table 1 Participant information fields

Column name	Description
Participant ID	Participant's individual MSATS identification.
Participant Name	Name of the participant.
Legal Name	Participant's legal name.
Short Name	For example :  Participant Name = Australian Energy Market Operator  Short Name = AEMO
Long Business Name	Long registered business name.
Short Business Name	Short registered business name.
Document Password	Password for opening encrypted documents sent by email.
Encryption Method	Encryption algorithm used for encrypting documents sent by email.

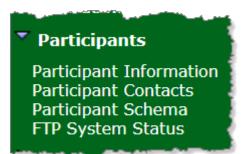
Column name	Description
Delivery Type	File format used to send documents.
Delivered Extension	The file extension of the documents sent by email.
Participant Group	The group the participant belongs to (if any).
Activity Status	Participant status - A = active or I = inactive.
Deregistration Code	The code allocated if the participant is deregistered (for example, DEREG).
Start Date	Date the participant ID was created or started.
End Date	Participant ID expiry date.
Participant Directory	The file path used to access the inbox and outbox when using the batch handlers.
Roles	Roles identify the types of responsibility a participant plays in relation to a NMI. The Role a participant can act in determines many of the functions performed in MSATS. Roles are an attribute of a participant not a Participant User.
Roles	NMI. The Role a participant can act in determines many of the functions performed in MSATS. Roles are an attribute of a participant not a Participant
Roles aseXML Version	NMI. The Role a participant can act in determines many of the functions performed in MSATS. Roles are an attribute of a participant not a Participant User.  For further information on Role definitions, see the Glossary in the MSATS
	NMI. The Role a participant can act in determines many of the functions performed in MSATS. Roles are an attribute of a participant not a Participant User.  For further information on Role definitions, see the Glossary in the MSATS Introduction Guide.
aseXML Version	NMI. The Role a participant can act in determines many of the functions performed in MSATS. Roles are an attribute of a participant not a Participant User.  For further information on Role definitions, see the Glossary in the MSATS Introduction Guide.  Current aseXML version the participant is using.
aseXML Version Outbox Status	NMI. The Role a participant can act in determines many of the functions performed in MSATS. Roles are an attribute of a participant not a Participant User.  For further information on Role definitions, see the Glossary in the MSATS Introduction Guide.  Current aseXML version the participant is using.  Status of the outbox (such as,Running and Stopped).  The phone number field consists of two sections. The first is a four-digit numerical country and area code. The second is a fifteen-digit numerical

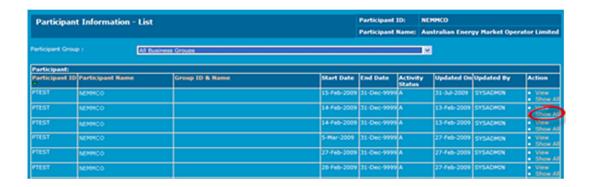
Column name	Description
Address 2,3	The Address 2 and Address 3 fields display any extra address details that do not fit within the Address 1 field.
Suburb/Locality	Where the participant is located.
Postcode	Four-digit numerical postcode.
State	Participant's state.
Country	Participant's country.

### Viewing a summary

- 1. On the main menu, click Participants and then click Participant Information.
- 2. Click Show All in the Action column next to the Participant ID.

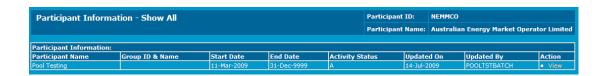
Click the Participant ID column heading to sort the list by ascending or descending order.





3. The Participant Information - Show all interface displays the summary information.

Click View in the Action column to see detailed participant information.



# **Participant contacts**

The Participant Contacts menu is where authorised Participant Users can create and maintain a list of external and internal business contacts. The functionality is similar to an address book where each participant has their own unique contact list that is viewable by authorised Participant Users.

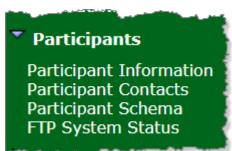
The participant contact list is not linked to the normal MSATS participant records. It acts as a stand-alone set of address book records.

### Participant Contacts user rights access

Participant Administrators control access to Participant Contacts using the Participant Contacts entity in the Administration menu in the MSATS Web Portal.

### Viewing the participant contact list

- 1. On the main menu, click Participants and then click Participant Contacts.
- The Participant Contact Lists interface displays a subset of the information available for each contact.
- 3. In this interface, you can do the following:
  - Sort the list of contacts: click any column heading (except Action).
  - Create a new contact based on an existing contact: click Copy to new.





3. To see further contact details, click View in the Action column.



4. The Participant Contacts - View interface displays the contact information in read-only format. To modify contact details, Editing a contact on page 26.

For help understanding the fields, see Table 2 on the next page.

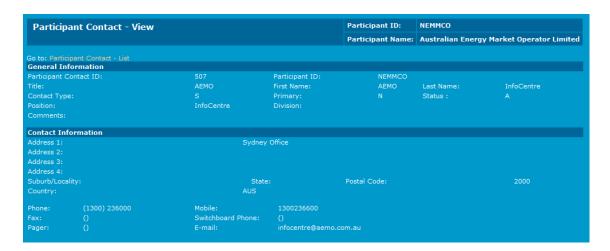


Table 2 Participant contacts fields explanation

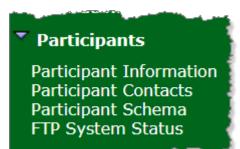
Field	Description
Participant ID	Your participant ID.
Title	Contact's title (such as MR, MRS, MS)
Contact Name	Contact's first name and surname.
Contact Type	E = external contact.
	I = internal contact.
Position	The contact's Role or official business title (such as CEO, Manager)
Division	The contact's division within their company.
Primary	Y = primary contact.
	N = secondary contact.
Comments	Notes or comments regarding the contact.
Address 1	Contact's address details.
Address 2, 3, 4	Extra address details that do not fit within the Address 1 field.
Suburb/Locality	Contact's suburb or city.
State	Contact's state.
Post Code	Contact's postcode.
Country	Contact's country.
Phone	Contact's phone number. The first is a four-digit numerical country & area code. The second is the numerical phone number.
Mobile	Contact's mobile phone number.
Fax	Contact's fax number.

Field	Description
Switchboard Phone	Contact's general switchboard number.
Pager	Contact's pager number.
E-mail	Contact's email address.

### Creating a new contact

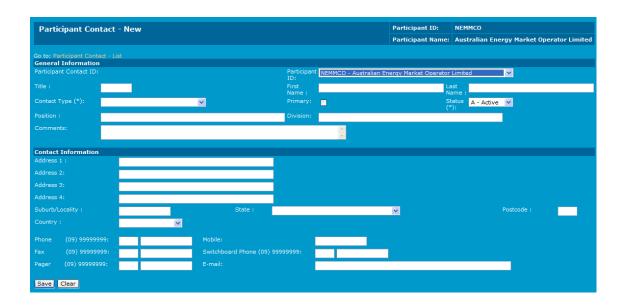
- On the main menu, click Participants and then click Participant Contacts.
- The Participant Contact Lists interface displays, click New above the Action column.

If you cannot see the New link above the Action column, you do not have permission to create new contacts.





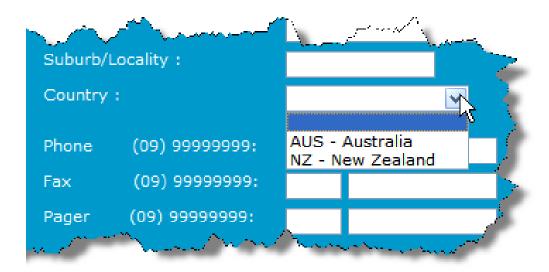
- 3. The Participant Contacts New interface displays. The ParticipantID is populated automatically, in the General Information section. The asterisk (\*) indicates a required field.
- 4. Type the contact's **Title** (such as Mr, Mrs, Miss, Ms, Dr.) This is a required field.



- 5. Type the contact's First Name and Last Name.
- 6. Click the Contact Type drop-down arrow and select from the list. For example, I is an internal contact, and E is an external contact. These are examples only, other options may display.
- 7. If the contact is a primary contact, click the **Primary** check box to enter a tick.



- Type the Position and the Division of the contact.
   Position refers to the contact's business Role (for example General Manager).
- 9. Type any relevant comments in the Comments field.
- Type the address details in the Contact Information section. Address 1 is a required field; use the Address 2, Address 3, and Address 4 fields if the contact's address is larger than the Address 1 field.
- 11. Type the Suburb/Locality, State and Postcode information.
- 12. Click the Country drop-down arrow and select from the list.



13. Enter the contact's Phone number. The area and country code are required fields. (The example uses the country code 61 for Australia and the area code 3 for Victoria.) Only the phone number field is required.



- 14. Enter information for the Mobile, Fax, SwitchboardPhone, Pager and E-mail fields if required.
- 15. Click Save.

Click Clear to clear the contact information and start again.

The information is validated and a confirmation message displays, "The Participant contact record has been saved successfully". The new contact displays in the Participant Contacts - Lists interface.

If any required fields are blank, or if information entered is not in the correct format, a message displays. Rectify the problem and click Save again.

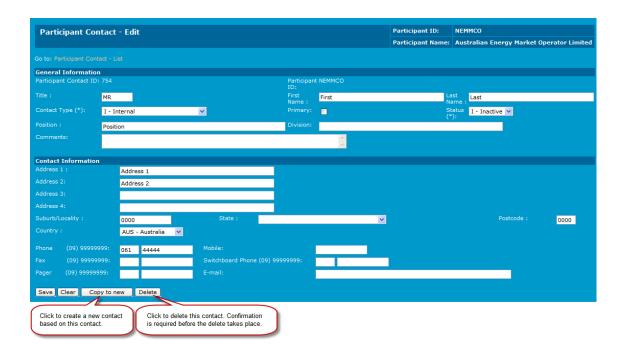
### **Editing a contact**

- 1. On the main menu, click Participants and then click Participant Contacts.
- 2. The Participant Contact Lists interface displays, click Edit in the Action column.

If you cannot see the **Edit** link in the **Action** column, you do not have permission to edit contact details.



3. The Participant Contact - Edit interface displays. Note: On this interface, the Participant Contact ID and ParticipantID are read-only.



4. Make your changes and click Save. For help understanding the fields, Viewing the participant contact list on page 20.

Alternatively, click Clear if you want to remove all changes and revert to the original information. Reverting is not possible if you have already saved the new changes.

5. A confirmation message confirms the saved changes. To return, click Return to "Participant Contact - List" interface.



### **Deleting a contact**

Authorised participants can delete contact records from the contact list. Once the record is removed, it can only be retrieved using a reload of archived data (if the record has been in the database long enough for archiving) or by re-creating the record.

- On the main menu, click Participants and then click Participant Contacts.
- The Participant Contact Lists interface displays, search for your record and click Delete in the Action column next to the record.

If you cannot see the **Delete** link in the **Action** column, you do not have permission to delete contacts.



3. Click OK to confirm contact deletion.



4. A confirmation message confirms the deletion and the contact record no longer appears in the Participant Information - List interface.

# Participant schema

### About participant schema

In the Participant Schema you can:

- View the current B2M aseXML schema version: Current, Superseded, or Latest. For help, see Changing the B2M aseXML schema on the next page
- Set different Participant Outbox protocols for different CATS, NMID, or MDMT Transaction Groups: FTP, API-Pull, API-Push.
- View the outbox status.
- Elect to stop receiving zip files.
- View the number of outstanding zip files.

For more information about aseXML transition, see Guide to Transition of aseXML.

### File processing

Participant Administrators can change the status of the file-producing process:

- From Running to Stopped (to stop files being created).
- From Empty to Running (to restart files being created, using the chosen schema).
- From Stopped to Running (to restart files being created, without waiting to change the schema).

### Changing the B2M aseXML schema

Provided the Outbox is empty of all B2M files (not B2B), participants can change their choice of schema to:

- Latest means the participant is set up to receive both current and next projected future version of aseXML-compliant files.
- Current means the participant can receive files compliant to the current aseXML version.
- Superseded means the participant can receive files compliant to the superseded aseXML version, and needs to change over their receiving system before the next aseXML version release.

### Participant Schema user rights access

Participant Administrators control access to the Participant Schema using the Participant aseXML Schema entity in the Administration menu in the MSATS Web Portal.

### Viewing your participant schema

In the Participant Schema interface Participant Administrators and authorised Participant Users can:

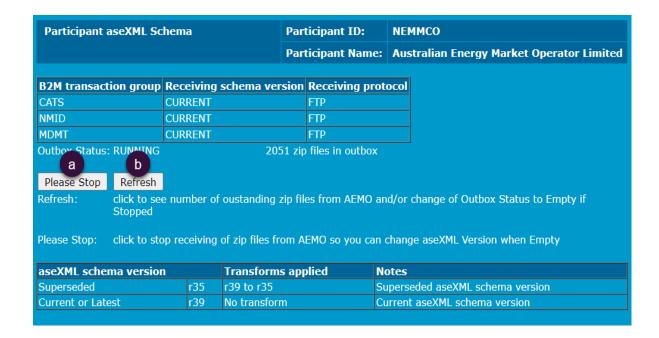
- View or change their B2M aseXML schema version to Current, Superseded, or Latest for each B2M Transaction Group.
- 2. Set different Participant Outbox protocols for different CATS, NMID, or MDMT Transaction Groups: FTP, API-Pull, API-Push.
- 3. View outstanding Messages and ACKS.

To view the current aseXML schema version or outbox protocol for B2M Transaction Groups:

- On the main menu, click Participants and then click Participant Schema.
- 2. The Participant aseXML Schema interface displays with your current aseXML Version, and your Outbox Protocol. From this interface you can do one of the following:
- Participants

  Participant Information
  Participant Contacts
  Participant Schema
  FTP System Status
- a. Click Please Stop to stop receiving zip files from AEMO. For example, the Outbox Status must be empty to change the aseXML version or protocol.
- b. Click Refresh to see the number of outstanding zip files available from AEMO. For example, click Refresh after Please Stop to see if the outbox status is empty.

Figure 2 Participant aseXML schema



### aseXML schema transition plan

This section describes the basic steps for transitioning to a new aseXML schema version. For more detailed scenarios, see Guide to Transition of aseXML.

To transition to a new schema version:

- 1. Stop MSATS creating files for your Participant ID, Change your participant schema version or outbox protocol on the next page.
- 2. Use your system as is, until the output directory is empty of MSATS files for processing.
- 3. Nominate your new aseXML version in the web portal, see Change your participant schema version or outbox protocol on the next page.
- 4. Re-enable MSATS creating files, in your nominated aseXML version.

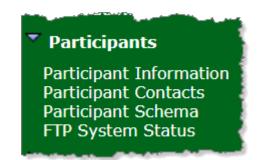
# Change your participant schema version or outbox protocol

These instructions assist participant administrators to change, for a Participant ID:

- 1. The aseXML schema version.
- 2. The Participant Outbox protocol for different CATS, NMID, or MDMT Transaction Groups: FTP, API-Pull, API-Push.

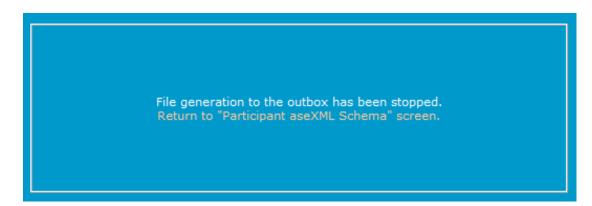
To change your participant schema version:

- In the MSATS main menu, click
   Participants and then click Participant
   Schema. Schema information relating to your participant ID displays.
- To stop the output of files, click Please Stop (see Participant aseXML schema on the previous page).

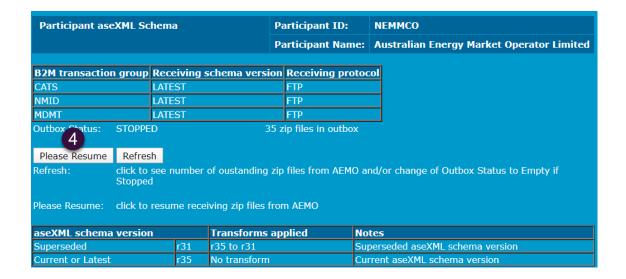


The stopped message appears, click Return to Participant aseXML Schema interface.

The acknowledgement process is not stopped when output file production is stopped. Acknowledgements conform to the schema version as selected at the time of creation of the acknowledgement. To avoid a mixture of current and superseded versions of acknowledgement files, stop sending files and delete the already-acknowledged zip files in your inbox.



4. The Please Stop button changes to Please Resume. Click Refresh to refresh the display of the Outbox Status until the status is Empty (for example, zero .ZIP files in the outbox, excluding acknowledgement files and B2B files).



The Change to version and change to protocol drop-downs become active, click the drop-down arrow and select your new version or protocol from the list.

Ensure your participant system is ready to receive files conforming to your chosen schema or protocol.



 Click Complete change. The resumed message displays, click Return to "Participant aseXML Schema" interface. Your aseXML version or protocol is changed and files are produced in the nominated schema version sent using your selected protocol. File generation to the outbox has been resumed. Return to "Participant aseXML Schema" screen.

## FTP system status

#### **About FTP System Status**

The FTP System Status submenu provides feedback to participants about the status of their processing by MSATS systems (such as batch handlers), and about any changes to the status of their processing by MSATS systems. The available statuses are: Running, Skipped, Stopped, and Down.

The FTP System Status is also available using AEMO's web services, see Guide to NEM Retail B2M APIs.

### FTP System Status user access rights

Participant Administrators control access to FTP System Status using the FTP System Status entity in the Administration menu in the MSATS Web Portal.

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

# Viewing FTP System Status

- 1. Click the Participants->FTP System Status link on the MSATS main menu.
- 2. The FTP System Status interface displays.
- 3. Click the System, Mode Type, Box, or Status drop-down arrows to filter the results.
- 4. Click the System arrow to sort by ascending or descending order.



## **Transactions**

About transactions	36
Change requests	37
Objections	75
Notifications	85
Request for data	91

#### **About transactions**

The **Transactions** menu is used to facilitate the process of consumer connection point transfers and the management of Standing Data. Transactions are completed using either the web portal or the batch handlers; this user guide focuses on transactions using the web portal. For help using the batch handlers, see using the File Interface in Introduction to MSATS.

are also available using the batch interface See Using the File Interface in Introduction to MSATS.

**MSATS Transactions** 

The Transactions menu is a subsystem within MSATS and is referred to throughout this guide as CATS. Using the CATS system, participants can administer and transfer information regarding consumer connection points between participants. This involves four key types of transactions: Change Requests, Objections, Notifications, Requests for data.

For help understanding the fields in the **Transactions** menu, see the following resources:

- CATS and WIGS Procedures
- MDM Procedures

- Technical Guide to MSATS
- Standing Data for MSATS

#### Transactions user rights access

Participant Administrators control access to Transactions using the Transactions (Change Requests, Objections, Notifications & Data Requests) entity in the Administration menu in the MSATS Web Portal.

## Change requests

### What are change requests?

Change requests are the transaction types participants submit to MSATS to create or update NMI Standing Data. Change requests include:

- Names and relationships of incumbent companys having Roles associated with the NMI.
- Standing details required to support PPS, BMP, Data Aggregation and Settlement.
- Standing details required to support NMI Discovery.
- Standing details in the Metering register, which includes Standing Data about Metering installations, including meter register data.

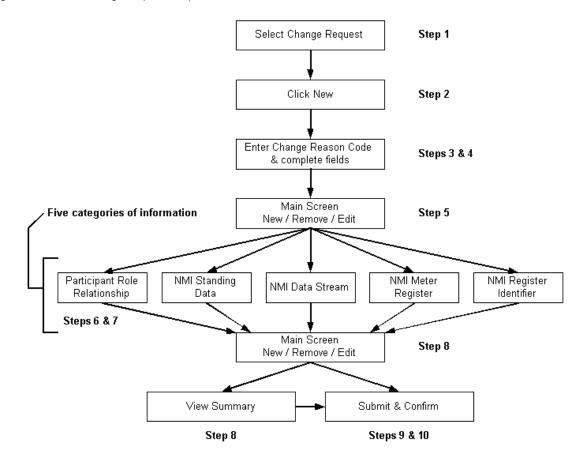
A change request is a temporary transaction that goes through a life cycle similar to the following:

- The initiating participant creates the change request and specifies which data to change and when.
- Other parties involved in the change request are notified of the change, and when it is to take place.
- If those notified have a right to object, they can submit an objection.
- All parties (including the initiator) are notified that an objection has occurred.
- The party that submitted the objection may subsequently withdraw it.
- Assuming all objections are withdrawn before a specified number of days, the change is eventually completed.
- If the change was objected to and the objection was not withdrawn, then the change is eventually cancelled by MSATS.

#### Generic steps of a change request

To demonstrate the generic steps involved in creating a change request, the steps in the following example use change reason code 1000, (change of transaction) and edits the participant Role relationship category (other categories cannot be changed for the change reason code 1000).

Figure 3 Generic change request steps



As shown in Steps 6 and 7, there are five categories of accessed information, depending on the change reason code used:

- Participant Role relationships
- NMI Standing Data
- NMI Datastream
- · NMI meter register
- NMI register identifier

For each category, a list of records appears on the change request transaction. If records appear in the list for a particular category, then information records are already linked. These information records may be changed. If the list is blank, then the participant must create new information records for that category. All relevant information must be present in these category lists for the change request to pass validation.

A change request is not completed until all of the following conditions are met:

- The proposed date has passed.
- The objection period has passed.
- The change request does not have any active objections lodged against it.
- It is not waiting for an actual change date to be returned by another party.

When all conditions are met, the change request moves to completed status and the new participant name appears as the FRMP on the main interface.

#### You can also:

- Acknowledge a change request (see Data Load Import on page 143).
- View a change request response (see Data Load Import on page 143).

For help understanding the change request rules, see
Administration on page 213.

**Transactions** 

Change Requests Objections Notification

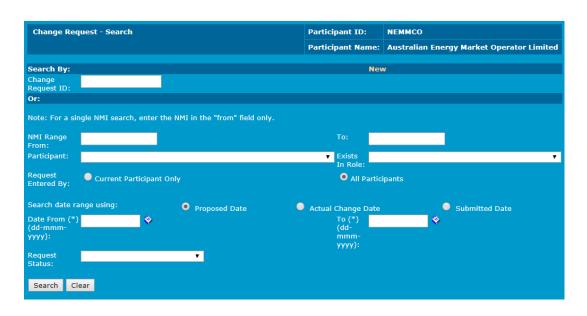
Request for data

**Bulk Updates** 

### Searching for a change request

#### To search for change requests:

- On the main menu, click Transactions and then click Change Requests.
- 2. The Change Request Search interface displays. To search for a change request do one of the following:
  - Enter the Change Request ID in the Search By: section and click Search.
  - Enter the change request details in the fields in the Or: section and click
     Search. The Date From and To fields are required.



- The Change Request List interface displays the results with the following options in the Action column:
  - View the change request details (see Change Requests View on page 43).
  - Show All displays change request history (Viewing change request history on page 49).

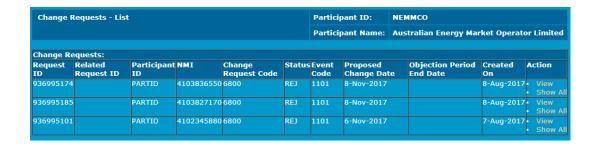
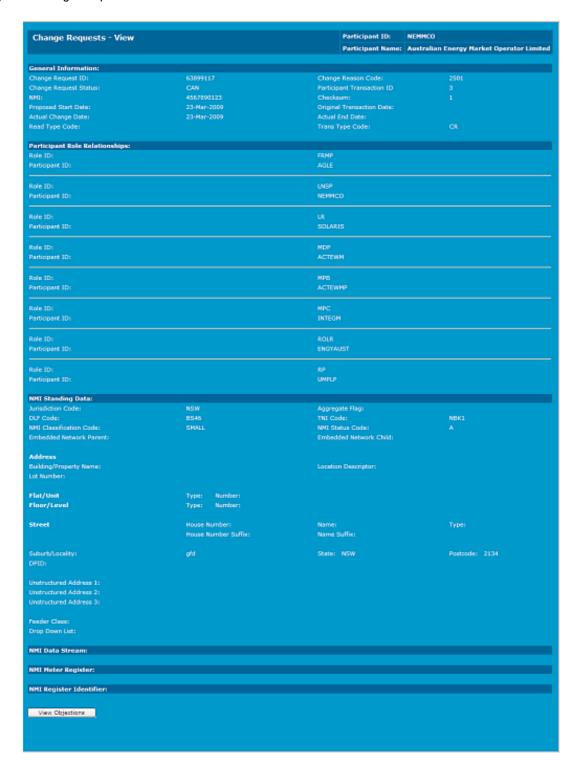


Figure 4 Change Requests - View



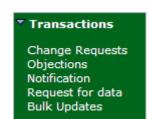
To return to the Change Request - Search interface, on the main menu click Transactions and then click Change Requests.

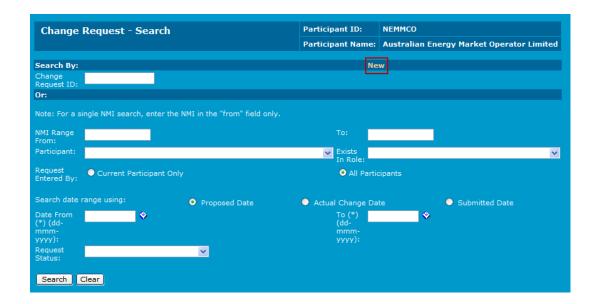
### Creating a new change request

Creating a new change request allows participants to add an item to the change request, for example a new Datastream, meter, or meter register.

To create a new change request:

- On the main menu, click Transactions and then click Change Requests.
- The Change Request Search interface displays, click New.





- The Change Request New interface displays. Click the Change Request drop-down arrow to select a change reason code. The change reason code selected determines the type of transaction to create. To learn more about change reason codes, Administration on page 213.
- 4. Click Next.

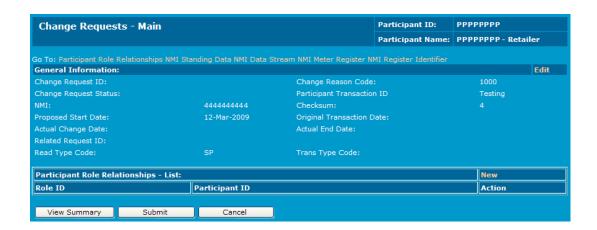


5. Complete the required fields and any other optional fields and click Next.

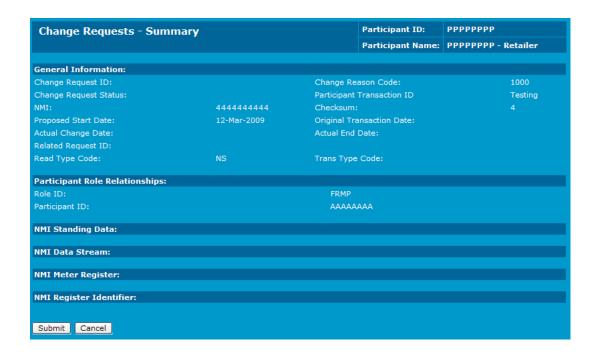
The fields differ depending on the change reason code selected. The example below displays the fields for the change reason code 2500 (Create NMI, Datastream + Meter Details).



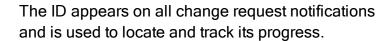
The Change Request - Main interface displays, click View Summary to review the details.



- 7. The Change Request Summary interface displays, review the details and do one of the following:
  - Click Submit to create the new change request.
  - Click Cancel to cancel the submission (not submit any changes).



- 8. Click OK to confirm the submission.
- 9. Confirmation of the change request submission displays with your Change Request ID.





The change request is saved, but the master record is not updated until the change request reaches **Completed** status. This occurs at the end of the objection and nominated proposed date period.

It is possible for change requests of the same type to be active at the same time against the same NMI, except for 1xxx series change requests (for which concurrent validation is disallowed).



#### Editing a change request

Editing a change request allows participants to edit existing Standing Data details for the nominated item (for example, Datastream, meter or meter register) or to change existing information about a change request.

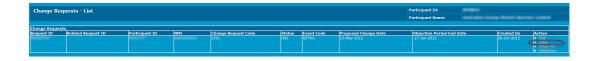
Removing an item from a change request allows participants to delete items already on the change request (assuming they are not protected by any business rules).

To edit an existing change request:

- On the main menu, click Transactions and then click Change Requests.
- 2. The Change Request Search interface displays. Search for the change request to edit (Searching for a change request on page 41).
- ▼ Transactions

  Change Requests
  Objections
  Notification
  Request for data
  Bulk Updates

3. Click View in the Action column next to the Request ID.



- 4. The Change Request Main interface displays, do one of the following:
  - Click Edit make the changes to Standing Data or a category list.
  - Click Remove to delete items that have already been put on the change request.

Note: If you cannot see Remove in the Action column, the data is protected by business rules and cannot be removed.



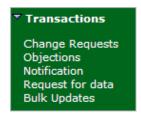
The Change Requests - Edit interface displays, make the required changes and click Save.

#### Withdrawing a change request

A change request transaction can only be withdrawn if it is not complete, cancelled, or rejected. The status is then changed to cancelled (CAN).

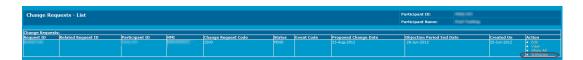
#### To withdraw a change request:

- On the main menu, click Transactions and then click Change Requests.
- 2. The Change Request Search interface displays. Search for the change request to withdraw (Searching for a change request on page 41).



3. The Change Request - List interface displays. Click Withdraw in the Action column next to the Request ID.

Note: if you cannot see the Withdraw link in the Action column, the change request cannot be withdrawn.



4. Click OK to confirm the change request withdrawal.



### Viewing change request history

The Change Request - Show All interface displays change request history such as:

- Transaction details in its original state before any modifications.
- · A full audit trail of the transaction life cycle.

To view change request history:

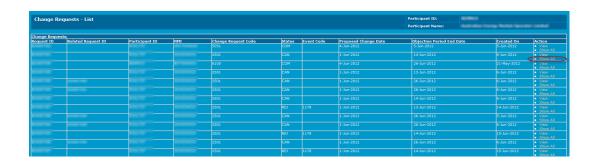
- 1. On the main menu, click **Transactions** and then click **Change Requests**.
- 2. The Change Request Search interface displays.

  Search for the change request to withdraw (Searching for a change request on page 41).

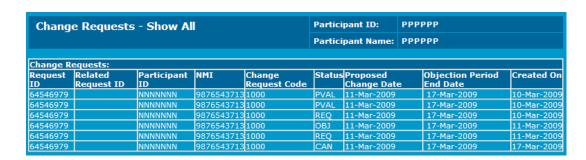
Inactive change request records are purged after a certain time and are no longer viewable.



3. The Change Request - List interface displays. Click Show All in the Action column next to the Request ID.



4. The Change Request - Show All interface displays the change request history.



#### Creating participant role relationships

An additional Role of NSP2 is created for all wholesale connection points. This is completed by AEMO after the NMI is created.

Participant Role relationships define the Roles played by Market Participants against a particular NMI record.

#### The Roles assignable to participants for a NMI are:

FRMP	Financially Responsible Market Participant	MPB	Metering Provider - Maintenance
LNSP	Local Network Service Provider	MPC	Metering Provider - Data Collection
LR	Local Retailer	ROLR	Retailer of Last Resort
MDP	Metering Data Provider	RP	Responsible Person

When the above Roles are selected during the change request process, they are only nominated for assignment to the NMI. When the change request is in Completed (COM) status the NMI details, including Role relationships, are saved permanently.

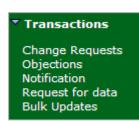
The Roles against a current change request can be modified up to the date that the change request is in a status of complete (COM). However, if any information in a change request is modified while it is in progress, the change request is assigned a new Request ID and the cycle restarts.

When a NMI is created, all the Roles must be allocated on the change request for setting up the NMI. Based on the current CATS procedures, this change request is normally created by the LNSP. All participants that are nominated in a Role against a new NMI are sent a notification (to the participant outbox) informing them of the NMI and the Role the LNSP has asked them to undertake. These participants then have all the information required to object to this nomination.

Once a NMI is created, specific change requests are entered to change individual Roles or groups of Roles. For example, there is a specific change reason code used to change the local transaction, allowing only that Role to change. Change requests to change Retailer (for example, CR1000) generally allow specification of a new FRMP, MDP, RP, MPB and MPC.

To add a new participant Role relationship:

 On the main menu, click Transactions and then click Change Requests.



- 2. The Change Request Search interface displays. Search for the change request (Searching for a change request on page 41).
- 3. The Change Request List interface displays. Click View in the Action column next to the Request ID.
- 4. On the Change Request Main interface, in the Participant Role Relationship section, click New.



5. The Change Request - New - Participant Role Relationships interface displays. Click the Role ID drop-down arrow and select from the list.

Note: a required Role cannot be removed, only replaced with another Role.

- 6. Click the Participant ID drop-down arrow and select from the list.
- 7. Click Save.

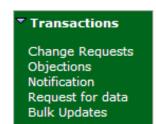


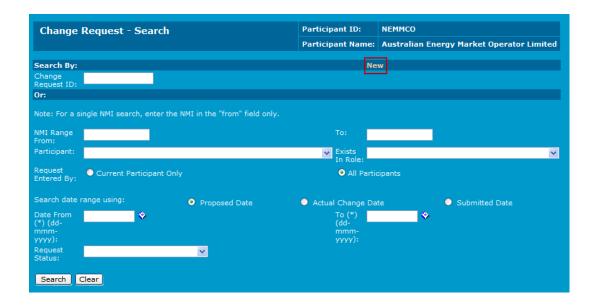
### Creating or editing NMI standing data

NMI Standing Data is the information captured against a NMI that includes its NMI classification, TNI and DLF codes and details of its physical location.

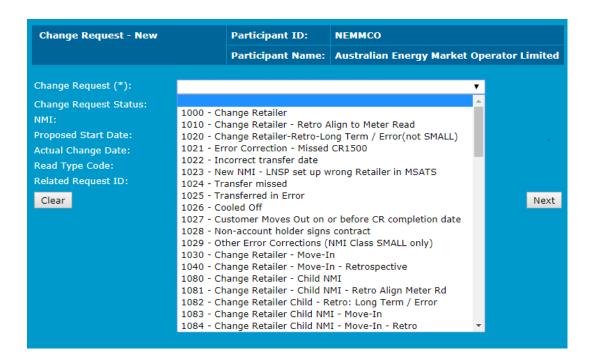
#### To create NMI Standing Data:

- On the main menu, click Transactions and then click Change Requests.
- The Change Request Search interface displays, click New.





3. The Change Request - New interface displays. Click the Change Request drop-down arrow to select a change reason code for example, Create NMI Details (2001 or similar) or Change NMI Details (5051 or similar). The change reason code selected determines the type of transaction to create. To learn more about change reason codes, Administration on page 213.



 The fields for the selected change reason code display. Type the NMI details and click Next. For help understanding the fields, see NMI Standing Data fields on page 56.



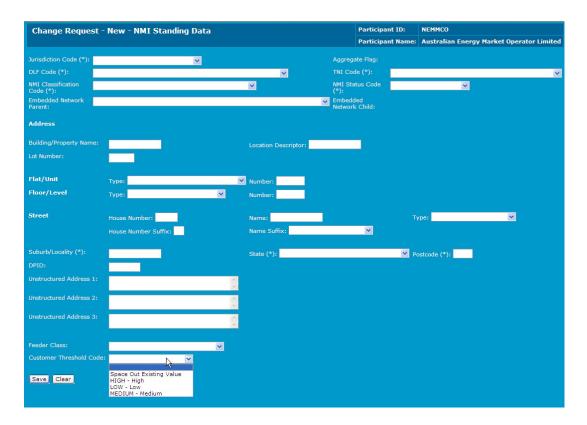
The Change Request - Main interface displays. Scroll to the NMI Standing
 Data - List at bottom of the interface. For both new and existing NMI records, if
 there is no information displayed in the list; click New.

Note: if the NMI Standing Data - List heading is not displayed, you cannot create or modify NMI Standing Data using the selected change reason code.



- The Change Request NMI Standing Data interface displays. Type your changes and click Save.
  - For a new NMI, complete the required fields, marked with an asterisk (\*) and any other optional fields.
  - For an existing NMI, only complete the field(s) that you want to change.

Important Note: if an existing NMI is being changed, all the values in this interface are blank, even if some of them have an existing value. The only existing values displayed are those in the NMI data list on the Change Request - Main interface.



- 7. Click OK to the confirmation message.
- 8. The NMI Standing Data record is summarised in the NMI Standing Data List table. Do one of the following:
  - To make changes to the details before submitting, click Edit.
  - Click Submit to create the new change request.

To create Datastream or Metering details, providing you are using a change reason code that allows (Creating or editing NMI datastreams on page 59, Creating or editing NMI metering installation details on page 64, and Creating or editing NMI register identifier details on page 69).

Note: notice the New option is no longer available.



NMI Standing Data fields below explains the NMI Standing Data fields with a brief description. For more information, see Standing Data for MSATS.

Table 3 NMI Standing Data fields

Field	Description
Jurisdiction Code*	Jurisdiction code to which the NMI belongs. The jurisdiction is required to enforce validation on a number of rules tables. This is the jurisdiction where the NMI is located, not the jurisdiction where its energy is supplied.
Aggregate Flag	All retail connection points have this flag set to Y. Default to Y if the field is left blank. Options are Y or N.
DLF Code*	Distribution Loss Factor. Must be a valid code stored in the CATS DLF code table.
TNI Code*	Transmission Node Identifier. Identifies a Transmission Network  Connection Point. Must be a valid code stored in the CATS TNI code table.
NMI Classification Code*	Used to indicate the NMI classification. Values permitted include SMALL, LARGE, GENERATR, WHOLESAL, INTERCON, EPROFILE, and SAMPLE.  Normal retail NMIs have a classification of LARGE or SMALL.
NMI Status Code*	Used to indicate the status of the NMI. Values permitted include A for active NMI, D for De-energised, G for a Greenfield Site and X for extinct NMI.

Field	Description
Embedded Network Parent	Identifies which embedded network this given NMI is the 'parent of'. If, on a NMI record, this field is not populated, it is assumed the NMI is not the parent of an embedded network.
	Blank for most NMIs.
Embedded Network Child	Identifies the embedded network associated with the NMI. If this field is not populated, it is assumed the NMI is not associated with any other NMI (i.e. it is not in an embedded network). Blank for most NMIs.
Building/Property Name	The full name used to identify the physical building or property location.
Location Descriptor	A general field capturing various references to address locations alongside another physical location.
Lot Number	The reference number allocated to an address prior to street numbering.
Flat/Unit Type	The type of flat or unit, which is a separately identifiable portion within a building or complex. Values permitted include: APT, CTGE, DUP, FY, F, HSE, KSK, MSNT, MB, OFF, PTHS, RM, SHED, SHOP, SITE, SL, STU, SE, TNHS, U, VLLA, WARD, WE.
Flat/Unit Number	The number of the flat or unit, which is a separately identifiable portion within a building or complex.
Floor/Level Type	Used to identify the floor or level of a multi-storey building or complex. Values permitted include B, FL, G, L, LG, M, and UG.
Floor/Level Number	Used to identify the floor or level of a multi-storey building or complex.
House Number	The numeric reference of a house or property - specifically the house number. Note: Do not store the house suffix in this field.
Street Name	The thoroughfare name. Do not include the number of the house or the street type (such as ST or RD).
Street Type	The street type abbreviation. Examples are: ST, RD, AV.

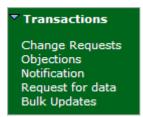
Field	Description
House Number Suffix	The modifier to a numeric reference of a house or property to identify a separate part. Specifically the single character identifying the house number suffix (for example A or B) as in a house number 54A.
Street Name Suffix	Records any street suffixes. Values permitted include: CN, E, EX, OR, N, NE, NW, S, SE, SW, UP, W.
Suburb/Locality*	The full name of the locality.
State*	Defined State or Territory abbreviation. Values permitted include AAT, ACT, NSW, NT, QLD, SA, TAS, VIC, and WA.
Postcode*	The numeric descriptor for a postal delivery area.
DPID	Delivery point identifier allocated by Australia Post - the unique numeric descriptor for the postal delivery point that is equal to a physical address.
Unstructured Address 1	Provide the unstructured address (line 1) where a structured address cannot be supplied. Do not include locality, postcode or state in these fields.
Unstructured Address 2	Provide the unstructured address (line 2) where a structured address cannot be supplied.
Unstructured Address 3	Provide the unstructured address (line 3) where a structured address cannot be supplied.
Feeder Class	Feeder class data provided by participants.
Customer Classification Code	Classifies the customer as BUSINESS or RESIDENTIAL.
	Set by the FRMP for the NMI. Displays according to the CR request selected.
Customer Threshold	Classifies the customer load as LOW, MEDIUM, or HIGH.
Code	Set by the DNSP for the NMI. Displays according to the CR request selected.

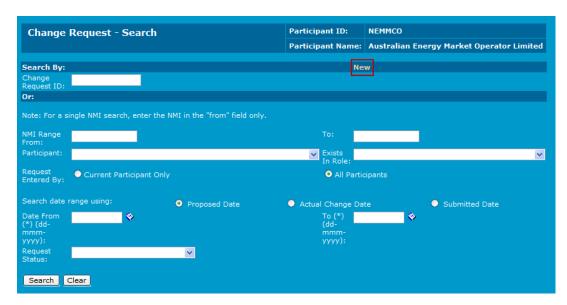
#### Creating or editing NMI datastreams

NMI Datastreams define the streams of Metering Data the MDM component of MSATS expects to receive for any NMI (such as, connection point). Datastreams are streams of Metering Data that are associated with a connection point, as represented by a NMI. A NMI can have multiple Datastreams (for example, from one or more meters or from one or more channels or registers that comprise a single meter). Each Datastream is identified by a suffix.

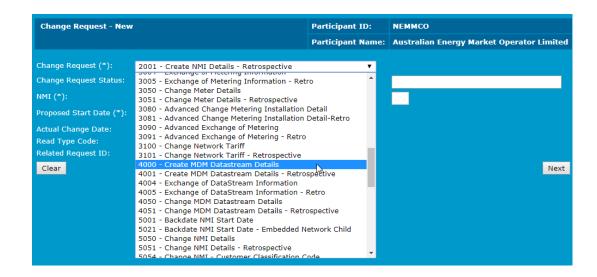
#### To create a NMI Datastream:

- On the main menu, click Transactions and then click Change Requests.
- The Change Request Search interface displays, click New.





 The Change Request - New interface displays. Click the Change Request drop-down arrow to select a change reason code for example, Create MDM Datastreams (4000 or similar). The change reason code selected determines the type of transaction to create. To learn more about change reason codes, Administration on page 213.



4. The fields for the selected change reason code display. Complete the fields and click Next.



The Change Request - Main interface displays. Scroll to the NMI Datastream
 List at bottom of the interface and click New.



 The Change Request - New - Datastreams interface displays. Complete the Suffix field marked with an asterisk (\*) and any other optional fields and click Save. For help understanding the fields, see Datastream fields on page 62.



- 7. Click OK to the confirmation message.
- 8. The NMI Datastream record is summarised in the NMI Datastream List. Do one of the following:
  - To make changes to the details before submitting, click Edit. If you select to edit an existing Datastream, the interface is blank, except for the suffix, even though each field has an existing value. Only complete the field(s) that you want to change. When you click Save, review and confirm the changes.
  - To create a new Datastream record against the NMI, click New.
  - Click Submit to create the new change request.



Important Note: if editing an existing NMI Datastream for example, using CR4051 or similar, the existing information is not displayed. The only field visible for NMI Datastreams is the Suffix field.



Datastream fields on the next page explains the Datastream fields. For more details, see MSATS Procedures: CATS Procedure Principles and Obligations.

Table 4 Datastream fields

Field	Description
Suffix*	A two-character identifier used in conjunction with a NMI to identify a particular Datastream. Each Datastream for a single NMI must have a unique suffix. The characters chosen for the suffix have some meaning.  The rules for suffixes defined in the MSATS Procedures: CATS Procedure Principles and Obligations must be used (for example, suffixes for interval Metering installations begin with N and suffixes for Accumulation Metering Installations are numeric (such as 11).
Туре	Used to define what type of Metering Data the MDM expects.  The Datastream type code is:  I (Interval) if the streams of data contain 48 readings for each 24-hour period, each representing a specified 30-minute interval. This is the case for all interval type Metering installations, where there are actual values for each Settlement period, and non-metered installations, where calculated data is provided. It includes installations defined as types 1-5 and type 7 in jurisdictional metrology procedures.
	C (Consumption) if the streams of data consist of a single value that represents total consumption since the previous reading and a date, which represents the date the installation was read. Such Metering installations are referred to as Accumulation, Consumption, or Basic meters and are defined as type 6 Metering installations in jurisdictional metrology procedures.
	There is a further valid Datastream type:
	P (External Profile Data) This code is used if the data is actually an externally supplied profile shape (rather than one calculated by the MDM), for use in profiling consumption Metering Data, and not actual Metering Data to be settled.

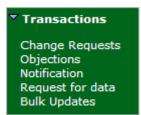
Field	Description
Profile Name	Identifies the name of the profile shape used to allocate a Datastream's consumption to trading intervals. The valid profile names are:
	NSLP (Net System Load Profile), which is a profile calculated by MSATS. NSLP represents the system load after all actual interval Metering Data or specified previously-calculated profiled Metering Data that is not dependent on the NSLP has been subtracted from a known total system load and represents system-wide usage by consumption-type Metering installations.
	CLOAD profile names beginning with CLOAD are controlled load profiles. Controlled load profiles are applied to controlled load Datastreams in NSW, SA and QLD. There is one controlled load profile for each LNSP area. The names all begin with CLOAD to indicate they are profile names followed by two characters to indicate the LNSP area to which it belongs.
	NOPROF is used for interval Datastream types to indicate that such Datastreams do not need to be profiled to obtain 'readings' for each Settlement interval because the data is supplied in 30-minute intervals.
Average Daily Load	The electrical energy delivered through a Metering point's Datastream over an extended period normalised to a "per day" basis, in KWh.
_	•

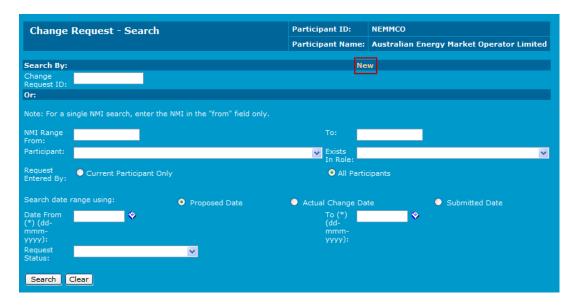
# Creating or editing NMI metering installation details

NMI meter register records contain data that is stored about the meters for a given NMI (such as, connection point). Some of the details recorded are the next scheduled read date (if it is manually read), the Metering installation type, the physical location details and the manufacturer's details.

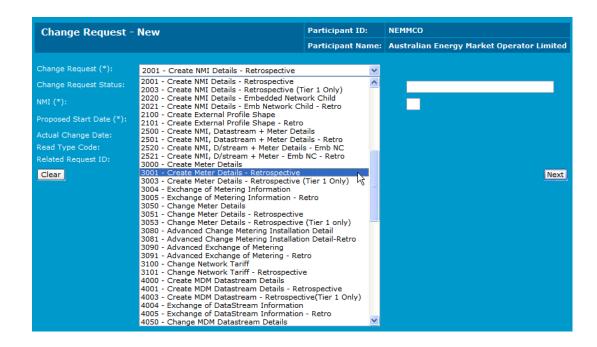
To create a record for a new NMI meter installation:

- On the main menu, click Transactions and then click Change Requests.
- The Change Request Search interface displays, click New.

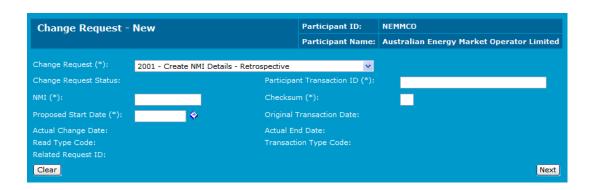




3. The Change Request - New interface displays. Click the Change Request drop-down arrow to select a change reason code for example, Create Meter Details (3001 or similar) or Change Meter Details (3050 or similar). The change reason code selected determines the type of transaction to create. To learn more about change reason codes, see Administration on page 213.



The fields for the selected change reason code display. Complete the fields and click Next.

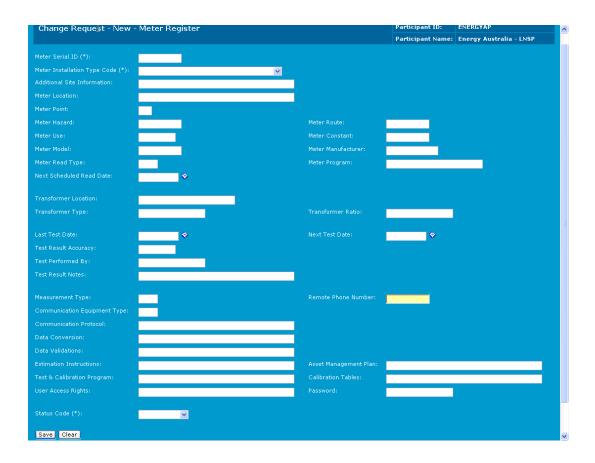


The Change Request - Main interface displays. Scroll to the NMI Meter Register - List at bottom of the interface and click New.

Note: if there are no serial numbers in the list, then there are currently no Metering installations created for this NMI. If the NMI Meter Register - List heading is not displayed, you cannot create or modify Metering installations using this change reason code.



 The Change Request - New- Meter Register interface displays. Complete each of the required fields marked with an asterisk (\*) and any optional fields and then click Save. For help understanding the fields, see NMI Metering Installation fields on the next page.



- 7. Click OK to the confirmation message.
- 8. The NMI meter register record is summarised in the NMI Meter Register- List. Do one of the following:
  - To make changes to the details before submitting, click Edit. If you select to edit an existing Metering installation, the interface is blank, except for the Serial ID even though each field has an existing value. Only complete the field(s) that you want to change. When you click Save, review and confirm the changes.
  - To create a new Metering installation record against the NMI, click New.
  - Click Submit to create the new change request.



NMI Metering Installation fields below explains the NMI Metering installation fields. For further information, see the document MSATS Procedures: CATS Procedure Principles and Obligations.

Table 5 NMI Metering Installation fields

Field	Description
rieiu	Description
Meter Serial ID*	The meter serial number uniquely identifies a meter for a given NMI. The same meter serial number can be used more than once providing it belongs to a different NMI.
Additional Site Information	Additional information that describes the location of the Metering installation.
Meter Location	Code or text indicating where the meter is physically located at the premises.
Meter Installation	Indicates the Metering installation type:
Type Code*	BASIC - Consumption Type Metering installation (type 6)
	COMMSn - Interval type Metering installations, read remotely (i.e. using a modem). (types 1-4)
	MRIMManually-read interval Metering installation (type 5)
	UMCPUnmetered connection point (type 7)
Meter Point	An additional Metering identifier field.
Meter Hazard	Code or text indicating any dangerous conditions identified at the meter site.
Meter Route	The route identifier the meter is currently being read in.
Meter Use	Code indicating revenue meter, check meter, load research, etc.
Meter Constant	Multiplier applied to the meter to arrive at the consumption.
Meter Model	The manufacturer's model number.
Meter Manufacturer	The manufacturer's code.

Field	Description
Meter Read Type	Code indicating how the meter is read, examples include mechanical dial, display, local handheld, local laptop, remote dial-up, remote radio, remote mobile.
Meter Program	For programmable meters, identifiers of the program run at the meter.
Next Scheduled Read Date	Indicates the scheduled next manual read date. Only required for NMIs where the Metering Installation Type is Basic or MRIM.
Transformer Location	Indicates where the transformer is in relation to the meter (if installed).
Transformer Type	Type of transformation employed.
Transformer Ratio	Instrument transformer ratios (available and connected).
Last Test Date	Last date the meter was tested.
Next Test Date	Next date the meter is tested.
Test Results Accuracy	The accuracy of the meter from the last test.
Test Performed By	Who performed the last test. Used to store a company or individual name.
Test Result Notes	Any text or further test information.
Measurement Type	Code indicating how the meter is measuring, example values include aggregate consumption, programmable, interval.
Remote Phone Number	The phone number for remote access.
Communication Equipment Type	Indicates modem or other communication device types.
Communication Protocol	Description of how the devices communicate.

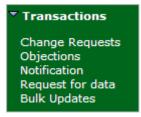
Field	Description
Data Conversion	Description of details needed to translate data received from a communication device.
Estimation Instructions	Description of how the meter is estimated if no read can be obtained.
Asset Management Plan	Description or reference of asset management plan.
Test & Calibration Program	Description or reference of test and calibration plan.
Calibration Tables	Details of any calibration factors programmed into the meter.
User Access Rights	Details of any end use customer access to the Metering installation.  Examples include pulse outputs, interface to customer load management system, or customer directly accessing data in meter through special agreement.
Password	Password for gaining remote access to the Metering installation.
Status Code	Indicates whether the Metering installation is current (in use) or has been removed. Valid values are:  C - current  R - removed

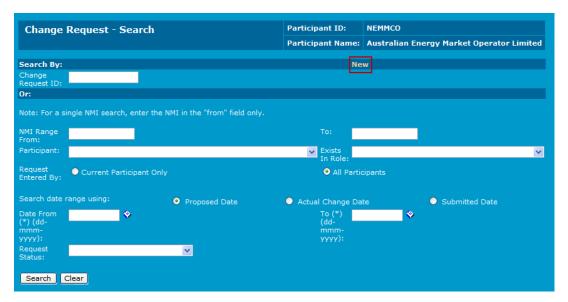
# Creating or editing NMI register identifier details

NMI register records contain data that is stored against meter register identifiers for a given Metering installation associated with a NMI. These records contain information such as, the register ID, network tariff code and a code representing the unit of measure. Each Metering installation can have multiple registers.

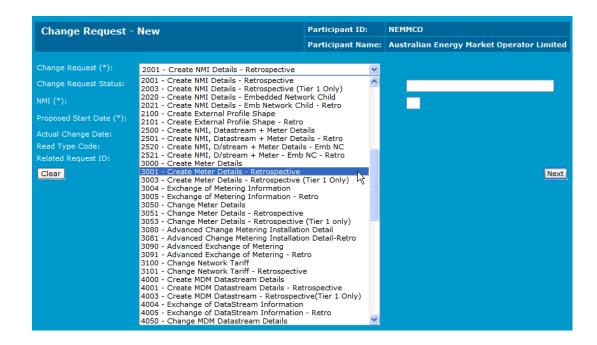
### To create a NMI register:

- 1. On the main menu, click Transactions and then click Change Requests.
- The Change Request Search interface displays, click New.





3. The Change Request - New interface displays. Click the Change Request drop-down arrow to select a change reason code for example, Create Meter Details (3001 or similar) or Change Meter Details (3051 or similar). The change reason code selected determines the type of transaction to create. To learn more about change reason codes, Administration on page 213.



 The fields for the selected change reason code display. Complete the fields and click Next. For help understanding the fields, see NMI Metering Installation fields on page 67.



 The Change Request - Main interface displays. Scroll to the NMI RegisterIdentifier - List at bottom of the interface and click New.

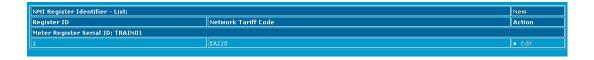
Note: if there are no serial numbers in the list, then there are currently no Metering installations created for this NMI. If the RegisterIdentifier - List heading is not displayed, you cannot create or modify Metering installations using this change reason code.



 The Change Request - New - Register Identifier interface displays.
 Complete each of the required fields, and any optional fields and then click Save. For help understanding the fields, see NMI register fields on the next page.



- 7. Click OK to the confirmation message.
- 8. The NMI register record is summarised in the NMI Register Identifier- List. Do one of the following:
  - To make changes to the details before submitting, click Edit. If you select to edit an existing Metering installation, the interface is blank, except for the Serial ID even though each field has an existing value. Only complete the field(s) that you want to change. When you click Save, review and confirm the changes.
  - To create a new Metering installation record against the NMI, click New.
  - Click Submit to create the new change request.



### Table 6 NMI register fields

Field	Description
Meter Register Serial ID*	The meter serial number is an alphanumeric identifier that uniquely identifies a meter for a given NMI (i.e. it must be unique for this NMI). In this table, it identifies the Metering installation associated with the NMI. The meter serial number must exist or have been created on the change request that is creating this register Id.
Register ID	The register ID uniquely identifies each register associated with the Metering installation. Each register is a unique data source that is obtained from the meter. A single meter may provide multiple data sources.
Network Tariff Code	The Network Tariff Code is a code that represents the network tariff that is applied by the LNSP for consumption measured by this register. LNSPs supply the network tariff codes. Each LNSP is required to publish a definition of what each code represents. This can normally be found on the LNSP's own web site.
Network Tariff Code Additional Information	Free text field for any other information relating to the network tariff code.
Unit of Measure	Code to identify the UOM for data held in this register.
	Examples: KWH, WH, KVARH, KVA, KW, VAR, VARH, V, A.
Time of Day	Industry developed codes to identify the time validity of register contents.  For Interval meters, use code "INTERVAL".  A possible group of codes might be:  TOTAL, PEAK, SHOULDER, OFFPEAK, CONTROLLED, DEMAND, WEEKEND, PUBHOL
Multiplier	Multiplier required to take a register value and turn it into a value representing billable energy.
Dial Format	Describes the register display format .First number is the number of digits to the left of the decimal place, and the second number is the number of digits to the right of the decimal place

Field	Description
MDM Datastream Suffix	A code allowing this register to be associated with a Datastream suffix (i.e. all registers with the same suffix contribute to the same Datastream).
	Originally, this field had to contain a suffix that existed on the CATS_ NMI_Data_Stream table. That validation is no longer required.
	This allows for both energy and non-energy suffixes to be defined
Controlled Load	CIndicates whether the energy recorded by this register is created under a controlled load regime.
	This field has "No" if the register does not relate to a controlled load.
	If the register relates to a controlled load, it contains a text description of the controlled load regime
Status Code	Indicates whether the register is current (in use) or has been removed. No information is deleted from MSATS so, if a Metering installation is replaced, the Metering installation itself and the registers associated with the Metering installation have their status code updated to reflect that they are no longer there.
	It is possible to see the date from when a register was removed. Valid values are:
	Ccurrent
	Rremoved
Actual/Cumulative	Actual/Subtractive Indicator.
indicator	Actual implies volume of energy actually metered between two dates.
	Cumulative indicates a meter reading for a specific date. A second meter reading is required to determine the consumption between those two read dates.
	Valid values are:
	Valid values are: Aactual

Field	Description
Demand1	This field contains the peak demand value for Summer for network tariff purposes. Units in kW or kVA. Only required for a small number of specialised network tariff codes.
Demand2	This field contains an additional demand value (not Summer period). Units in kW or kVA.  Only required for a small number of specialised network tariff codes.

# **Objections**

# What are objections?

Participants can log objections against change request transactions using the MSATS web portal or the batch handlers. The right to object to a transaction is determined by the objection and jurisdictional rules. The objection rules define, for each type of change request, which participant Roles can object using which objection codes. The jurisdictional rules determine the length of the objection logging and clearing periods.

Objections can be logged for both Prospective and retrospective change reason codes. When a participant has the right to object in a current Role, any participant acting in that Role for the period covered by the change request (such as, the Proposed Date or Actual Change Date) may be able to object. If the change request has a proposed date and end date, both of which are in the past (such as, it is updating active historic data only), the participant that is now the current Role for that period may be a different participant.

This means that more than one participant may be acting in the current Role for any change request. In this case, MSATS allows multiple participants to have a Role status of current against a NMI. The following table provides an example of a current Role relationship for NMI 6001000100.

Participant ID	NMI	Role	Start date	End date	Active flag
FRMP1	6001000100	FRMP	1/7/2000	19/10/2008	Α
FRMP2	6001000100	FRMP	20/10/2008	31/12/9999	Α
LNSPLNSP	6001000100	LNSP	1/7/2000	31/12/9999	Α
LRLRLR	6001000100	LR	1/7/2000	31/12/9999	Α
MDPMDP	6001000100	MDP	1/7/2000	31/12/9999	Α

The NMI 6001000100 currently has two active FRMPs assigned to it, FRMP1 and FRMP2.

- Only FRMP1 has the ability to object to any retrospective change requests that have a Proposed Date or Actual Change Date of 1st July 2000 and End Date of 19th October 2008.
- Only FRMP2 has the ability to object to any Retrospective change requests that have an Actual Change Date of 20th October 2008 and an End Date up to and including the present day or no End Date, in which case the change is assumed to apply into the future (the high date, which is 31/12/9999).
- Only FRMP2 has the ability to object to any Prospective change requests.
- Both FRMP1 and FRMP2 can object if the Proposed Date or Actual Change
  Date is before 20th October 2008 and the End Date is after 19th October 2008
  or there was no End Date because both are current FRMPs for the period
  covered by the proposed change.

Objections can only be logged within the valid objection-logging period for each change request.

Objection logging prerequisites are:

- The participant must know, or be able to locate the request ID for the relevant change request.
- The objection must be in a status of requested or objected.
- The objection period for the change request must still be open and current (such as, not closed).
- The participant must be acting in a Role that allows for this type of objection for this change reason code.

For a NOACC objection, the change request may have moved to PEND status. This is the only objection code with this functionality. In addition, the objection-logging period may have passed but the NOACC code does not recognise this period. A NOACC code can only be submitted by an MDP.

Each objection submitted against a change request must meet certain criteria:

- Identify the request ID to which it relates.
- Identify the participant making the objection.
- Identify the Role in which the participant is acting for the objection.
- Provide an objection code.

Once the objection is logged, it passes through validation to ensure that it complies with all rules. The objection is not fully processed until all validations are passed. For each objection logged, MSATS validates:

- The objection is not a duplicate.
- The change request to which it relates is identified.

- The change request has a status of requested or objected.
- The Role in which this participant is acting is identified.
- The participant is an active CATS participant.
- An active objection code is supplied.

The objection code is valid for the Role in which the participant is acting according to the objection rules—see MSATS Procedures: CATS Procedure Principles and Obligations.

The objection is received within the cut-off time allowed for this jurisdiction and change reason code type according to the jurisdictional rules—see MSATS Procedures: CATS Procedure Principles and Obligations.

 The participant objecting is acting in a new or current Role that is entitled to object for the Jurisdiction, change reason code and NMI classification of the change request.

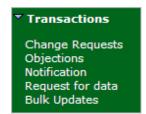
Once the objection has been received, the system notifies the initiator of the objection acceptance or rejection. This notification (objection response file) is sent to the participant's outbox in the form of a .ZIP file.

- A party can lodge an objection, even if there is already a valid objection logged against this change request from another party.
- If a change request has been in a status of Objected for the objection-cleaning period, the status of the request changes to Cancelled.
- If a change request has its status changed to Cancelled, its history is retained.
- If a change request has its status changed to Cancelled, all parties that received the original notification (including the initiator) are notified of the change of status.

# Searching and viewing objections

### To search and view objections:

- On the main menu, click Transactions and then click Objections.
- The Objections Search interface displays. From this interface you can search, view, edited or create objections. To search for an objection, do one of the following:



- Enter the Change Request ID in the Search By section and click Search.
- Enter the change request details in the fields in the Or section and click
   Search. The Date From and To fields are required.



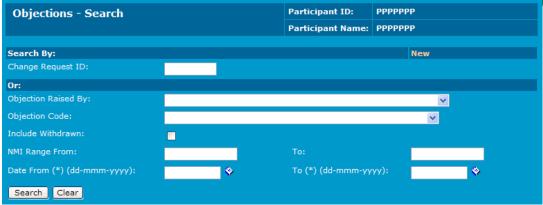
# Creating a new objection

The Objections - Search interface provides access to the Change Request interface showing details of a change request related to a particular objection. Participants can also view error messages related to objections that were loaded into the system using the batch process and for failed validations.

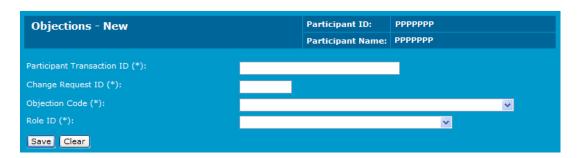
### To create a new objection:

- On the main menu, click Transactions and then click Objections.
- 2. The Objections Search interface displays, click New.

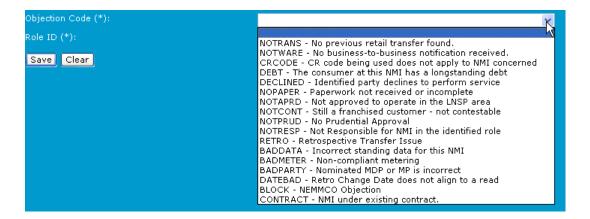




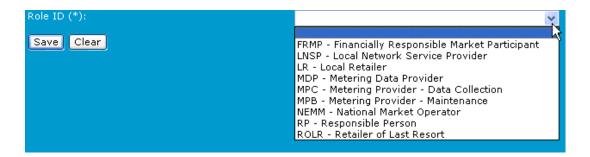
The Objections - New interface displays, for help understanding the fields, see Objection fields on page 82. Type the Participant Transaction ID and Change Request ID.



Click the Objection Code drop-down arrow and select the objection type from the list.



4. Click the Role ID drop-down arrow and select from the list. The Role ID selected must be equal to a Role currently held by the participant, and it must be a valid Role for the objection type.



- 5. Click Save. If the objection passes validation, the change request is updated to include the:
  - Objection code.
  - Role ID of the participant making the objection.
  - Date and time the objection was logged.
  - Objected status.

If the objection fails validation, an error message explaining the reason for the failure displays. Edit the objection to change the incorrect details.

The objection is confirmed and a notification is sent to each participant associated with the NMI who are authorised to receive notification of objections. This can be viewed using the participants outbox and is an XML format in a .ZIP file.

Table 7 Objection fields

Field	Description
Participant Transaction ID	Participant transaction identifier provided by the participant for each transaction they submit
Change Request ID	The unique identifier of the change request to which this objection relates
Objection Code	The objection code that identifies the reason for the objection. To learn more about objection codes, Administration on page 213.
Role ID	Role permitted to object with the given objection code. MSATS checks whether your Role status is current or new. (If it is new, then you must be nominated in this Role on the change request you are objecting to.)

# Withdrawing an objection

Participants can withdraw objections they have logged against change requests. An objection cannot be withdrawn if the:

- · Objection ID provided is not valid.
- Participant requesting the objection withdrawal is not the initiator of the objection.
- Related change request is cancelled.

If the objection withdrawal is valid, the objection is cancelled. The change request the objection is raised against has its status updated to Requested or remains at Objected if other participants have raised objections they have not withdrawn. In the overnight processing, any change requests that have their status updated to Requested have the status updated to Pending, if the objection period has passed.

Depending on the notification rules, participants are informed of the withdrawal of the objection and of the status of the change request for which the objection has been withdrawn. All participants that receive a notification of Objected status can expect to receive a notification when an objection is withdrawn.

When a change request's status is changed from OBJ (Objected) to REQ (Requested) after the withdrawal of an objection (which is what happens if there are no other outstanding objections), then two notifications are sent. One is triggered by the withdrawal of the objection and includes the objection details. Another is triggered by the standard action of a change request changing status to REQ; it does not have the objection details.

If the objection withdrawal is successful, the participant withdrawing the objection is notified of the success of their request. A web portal withdrawal receives immediate notification; while a batch handler withdrawal is acknowledged by an objection withdrawal transaction in the participant outbox.

Depending on the notification rules, the relevant parties are notified whenever an objection is withdrawn. The notification has a status of OBJ if there are still other active objections or REQ if all objections are cleared. In either case, the notification includes details in the objections section.

The following example displays the objectionAction as Withdrawn:

If an objection being withdrawn is not valid (such as, the objection record does not exist, the withdrawing participant was not the initiating party or the change request to which it relates has an invalid status), an error is recorded and the objection withdrawal transaction indicates that the withdrawal was rejected. A rejected web portal withdrawal receives immediate notification; while a batch withdrawal is acknowledged with an objection transaction in the participant outbox.

Table 8 Information captured against an objection withdrawal request

Field	Field code	Description
Change Request ID	REQUESTID	The unique identifier of the change request to which this objection relates.
Participant Transaction ID	PARTTRANSACTIONID	A participant transaction identifier provided by the participant for each transaction they submit.
Participant ID	PARTICIPANTID	The participant ID of the participant initiating the withdrawal.
Objection Code	OBJECTIONCODE	The objection code that identifies the previously entered objection that the participant now wants to withdraw.
Role ID	ROLEID	Role permitted to object with the given objection code

#### To withdraw an objection:

- On the main menu, click Transactions and then click Objections.
- 2. The Objections Search interface displays. To find the objection, follow the steps to view the Objections List interface (Searching and viewing objections on page 79).
- Transactions

  Change Requests
  Objections
  Notification
  Request for data
  Bulk Updates

3. The Objections - List interface displays the list of objections and objection withdrawals. Click Withdraw in the Action column next to the objection ID.





- 4. A confirmation message displays, click OK.
- 5. The objection withdrawal is confirmed.



# **Notifications**

### What are notifications?

Notifications occur when the status of a change request changes or when an objection is lodged or withdrawn. A notification includes information about what is proposed to change or what has changed, in the case of a COM (complete) notification.

Notifications are sent to relevant parties throughout the different stages of the transaction process as determined by the notification rules. Recipients can view notifications from the **Notifications** submenu.

#### The process involves:

- · Determining who is notified.
- Determining what is in the notification.
- Creating the notification ready for distribution.
- · Keeping an audit trail of notifications.

Notifications are dependent on the participant's relationship to the change request transaction.

Notifications serve an important additional purpose for the nominated new parties of an existing NMI who do not currently act in that Role. When the notification for a status COM (such as, completion) is sent to the new parties nominated on a change request, it includes the NMI master data required by the new participant. It includes all active records, which could be active historic and/or current records, depending on the period covered by the change request. The reason for supplying this information is to make it easy for parties acquiring a new relationship to update their own systems with the available NMI information.

New parties nominated on a change request in certain Roles (FRMP, LNSP, LR, MDP, MBP and RP) receive these special notifications for the COM status. If the old and new parties are the same for a Role, then the special notification for the COM status is not sent. (Some change requests require the specification of the party for a Role, even though that Role is not being changed.)

## **Notification rules**

The Notification Rules determines when notifications are sent. The rules are based on the following fields: Transaction type, change request status, change reason, the affected Role type and its status. For help viewing the Notification Rules list, Administration on page 213.

Sent notifications are viewed on the **Notifications - Search** interface. The notification process is initiated when a change request status changes, or when an objection is received or withdrawn.

# Retrospective notifications

Notifications can also be sent to participants in a "Retrospective" manner. Therefore, if a retrospective change reason code is selected, the participants who are associated to this change request being created (such as, they held a current Role against the NMI during the retrospective period assigned in the change request) receive notifications.

For example, assuming the following active participants hold a relationship with NMI 6001000100.

Participant ID	NMI	Role	Start date	End date	Active flag
FRMP1	6001000100	FRMP	1/7/2000	19/10/2008	Α
FRMP2	6001000100	FRMP	20/10/2008	31/12/9999	Α
LNSPLNSP	6001000100	LNSP	1/7/2000	31/12/9999	Α
LRLRLR	6001000100	LR	1/7/2000	31/12/9999	Α
MDPMDP	6001000100	MDP	1/7/2000	31/12/9999	Α

If a retrospective change reason code is created with a "Proposed Date" of 12 March 2008, the participant FRMP1 receives the notification since it is the active FRMP at the time of the proposed change. However, if the "Proposed Date" is the 5th November 2008, then FRMP2 receives the FRMP notification for the current FRMP.

This is achieved by allowing multiple participants to have a Role status of "current" against a particular NMI. When a notification or objection rule is defined for 'current' on a Retrospective change reason code, it means any current participants during the period of the change request. This allows participants having no current relationship with a NMI, but who did at the time of the change, to be notified and have the right to object. Equally, it excludes participants that have a current relationship with the NMI but had none at the time of the retrospective change.

An active history record is maintained for all of the time since the NMI began its existence. This is necessary because many Settlement operations in MSATS, for example revisions, occur a long time after the period being settled.

The notification rule only applies if the retrospective participant is still an "active" participant in MSATS. If the retrospective participant has become "inactive", then they do not have access to the MSATS system, and cannot receive the notification relating to the change request.

## Searching and viewing notifications

Notifications are placed in the participant outbox for all types of change requests regardless of whether they were created using the MSATS web portal or using the batch handlers. Notifications are viewed using the MSATS web portal or they can be viewed by downloading the .XML files. Each notification is a separate .XML file in a separate .ZIP file.

The file name has the following format:

catsm\_<Participantid>batch\_<receiptid>.zip

Because it is sent to the <ParticipantID>batch user ID, only someone logged on to the MSATS web portal with the user ID or with an access right providing access to the participant outbox, can see the response message. That is, the originator of the change request may not necessarily see it. Participants can only search for notifications sent to them. A search is completed using the change request ID field by itself or with any other field.

#### To search for notifications:

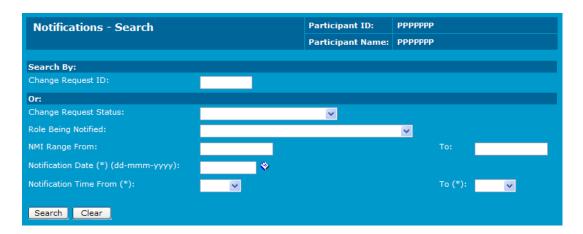
- On the main menu, click Transactions and then click Notification.
- 2. The Notifications Search interface displays, for help understanding the fields, Notification Search fields on page 90. To search for a notification, do one of the following:

Transactions

Change Requests
Objections
Notification
Request for data
Bulk Updates

- Enter the Change Request ID in the Search By section and click Search.
- Enter the change request details in the fields in the Or section and click Search. The Date From and To fields and the Notification Time From and To fields are required.

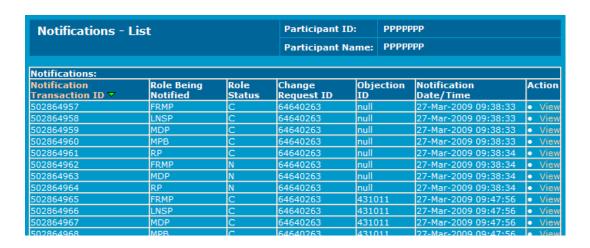
Note: the change request ID must be one submitted by or associated with the participant.



 The Notification - List interface displays. To sort the results, click the Notification Transaction ID column heading. The direction of the arrow indicates whether the results are sorted in ascending or descending order.

Note: a value in the Objection ID column other than null means the notification is associated with an objection or an objection withdrawal. The value displayed is the objection register.

4. To view the transaction details, click View in the Action column next to the Notification Transaction ID.



The read-only Notifications - View interface displays the details of the selected notification record.

If the notification is caused by an objection or objection withdrawal, it cannot be seen in the **Notifications** menu, Notifications on page 85 to find this information.



Table 9 Notification Search fields

Field	Description
Change Request ID	Unique register of each change request. This returns all notifications the participant has access to and are related to this change request ID
Change Request Status	Indicates the status of the change request and the transactions and notifications that may occur to a change request in a given status. Returns all notifications the participant has access to and that are related to a change request with this status.

Field	Description
Role being Notified	Role IDs identify the types of responsibility a participant may play within the market. Returns all notifications the participant has access to, where they have this Role on the notification.
NMI Range From / To	Returns all notifications the current participant has access to for change requests that relate to the NMIs found in this range.
Notification Date*	Returns all notifications the participant has access to where the create date is equal to this date. Date format = dd-mmm-yyyy.
Notification Time From / To*	Returns all notifications the participant has access to and whose create time lies between these values.

# Request for data

## What are requests for data?

When a change request is submitted, the existing data in MSATS is checked to ensure the transaction can proceed through the validation process. When some of the data required to complete the change request is not present it is requested from the appropriate participants. The nominated parties provide the requested data using a new change request. Participants can search, view detailed history and respond to data requests using the MSATS web portal. All participants can access the Request for Data menu, but the records they have access to are limited by their access rights.

The most common use of a data request transaction is a request to the MDP to provide the Actual Change Date for a change of Retailer type transaction. The date supplied is normally the date the meter is read or, in the case of a newly installed interval meter, the date it was NER compliant. Participants respond to a data request by submitting a normal change request; the change request type the MDP submits in response is a CR1500. The original change request cannot be completed until the requested data has been supplied.

# Receiving participant data requests

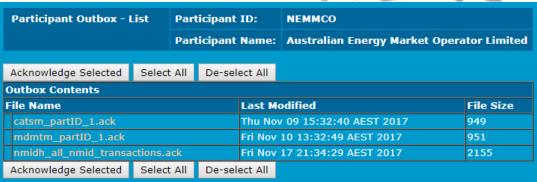
Participants receive data requests from file in their participant outbox. The Message Indicator on the main menu indicates the number of unanswered files a participant has in their participant outbox. The number includes all received files, not just data requests (such as, it also includes notification and other message types). The file is in aseXML format and compressed in a .ZIP file.

# Viewing and downloading messages

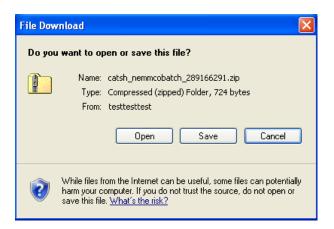
To view a request for data:

- On the Main Menu, click the message link.
   Clicking this link is the same as clicking Participant Outbox from the Data Load Import menu.
- The Participant Outbox- List displays all available messages.





- 3. To view a message, click the File Name link.
- 4. On the File Download window, either open or save the file.



5. If the .ZIP file is opened, the next step is to open the aseXML file.

The following example is of a message that relates to a request for data. The message requested the Actual Change Date for a retail transfer transaction.

The message includes the change request ID of the transaction that initiated the request for data message (in this example, Request ID = 8332898).

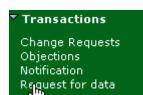
Under the Request ID, the Actual Change Date has a value of NIL = "true" assigned to it. This informs the participant that this data is required. Therefore, the participant needs to respond with a change request type 1500 providing the actual change date for the NMI in change request ID 8332898.

```
<?xml version="1.0" ?>
<ase:aseXML xmlns:ase="urn:aseXML:r10" xmlns:xsi="http://www.w3.org/2001/XML8chema-instance"
  xsi:schemaLocation="urn:aseXML:r10 http://www.nemmco.com.au/aseXML/schemas/r10/aseXML_r10.xsd">
 <Header>
   <From description="NEMMCO">NEMMCO
   <To description="Testing and Certification Austral MDP">TCAUSTM</To>
   <MessageID>NEMMCO-MSG-22886250</MessageID>
   <MessageDate>2004-06-19T20:23:38+10:00
   <TransactionGroup>CATS</TransactionGroup>
   <Priority>Medium</Priority
   <SecurityContext>NEMMCOBATCH</SecurityContext>
   <Market>NEM</Market>
 </Header>
  - <Transaction transactionID="CATS-22886250" transactionDate="2004-06-19T20:23:38+10:00">
   - <CATSDataRequest version="r7">
       <Role>MDP</Role>
       <RoleStatus>N</RoleStatus>
                                                              nil="true"
       <InitiatingRequestID>8332898
/InitiatingRequestID>
       <ActualChangeDate xsi:nil="true"
     - <NMIStandingData xsi:type="ase:ElectricityStandingData" version="r10"</p>
        <NMI>RIP0001411</NMI>
       </NMIStandingData>
     </CATSDataRequest>
   </Transaction>
  </Transactions>
</ase:aseXML>
```

# Searching, viewing and responding to data requests

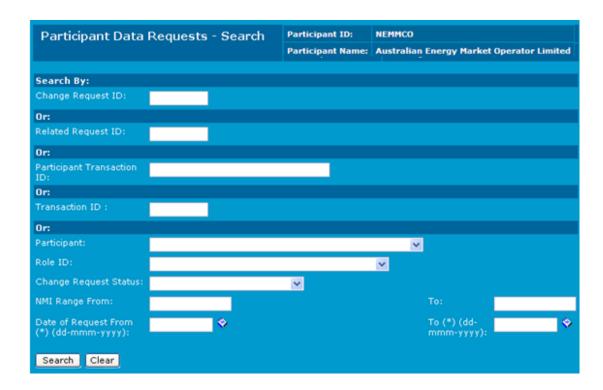
### To respond to a data request:

- On the main menu, click Transactions and then click Request for Data.
- The Participant Data Requests Search interface displays where you can search for any data request relating to your participant ID. You can search by any of the following criteria:



- Change Request ID (the original change request ID initiating the data request).
- Related Request ID.
- Participant Transaction ID.
- Transaction ID (relating to a message ID generated by MSATS).
- Participant, Role ID, Change Request Status, NMI Range From and To, Date of Request From and To.

Enter your criteria and click Search.

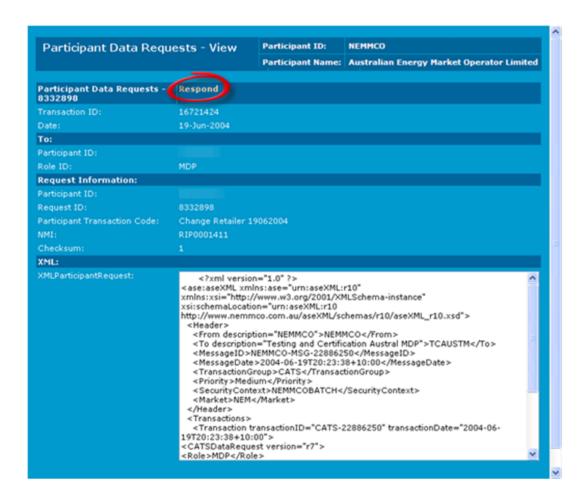


3. If the search is successful, the results display. Click View in the Action column next to the Request ID.

If no results display, refine your search using more search criteria.



 The Participant Data Requests - View interface displays. To respond to the request, click Respond.



5. The Change Requests - New interface displays where you create a new change request (Request for data on page 91).

Note: alternatively, you can use the batch handlers with the appropriate change reason code to submit the new change request. For further information, Using the File Interface in Introduction to MSATS.

# **NMI** Information

About NMI information	97
NMI discovery	98
NMI master	119
NMI master summary	122
Participant relationships	129

# **About NMI information**

The NMI Information menu in MSATS contains all the details necessary to identify a specific Connection Point for Settlements, auditing, and discovery purposes. A NMI is used for identifying a physical connection point.

This NMI Information menu contains the following submenus:

- NMI Discovery used to search for a specific NMI when you have a limited amount of information.
- NMI Master used to list all NMIs you are related to.

The NMI Discovery searches are also available using the batch and API interfaces.

- NMI Master Summary used to display NMI Standing Data about a NMI you are related to.
- Participant Relationships displays all participants related to a specific NMI.

# NMI discovery

# **About NMI discovery**

From the NMI Discovery menu, you can:

- Discover a customer's NMI and checksum if it is not known such as, when the customer cannot provide it (search type 1).
- Discover sufficient Standing Data about the NMI to provide a customer with a quotation (search type 2).
- Identify the current or most recent previous Retailer for a NMI (search type 3).
- Find a Meter's Previous Read Date and Quality Flag.

### Search Type 1: NMI Discovery

All Participant Users with appropriate access rights can use the NMI Discovery search type 1 provided their Participant ID is registered in MSATS as acting in a Role allowed access to NMI Discovery.

The Participant User undertaking the search does not need to hold an existing participant Role Relationship against the NMI for Standing Data to be returned unless their Role is LNSP. LNSPs can only search their own NMIs.

NMI Discovery Search
Key Rules may prevent
access to certain
search criteria, see
Jurisdictional rules on
page 100.

To learn more about NMI Discovery, see Technical Guide to MSATS.

### Search Type 2: Obtain Standing data

Search Type 2 is the process of entering a NMI and checksum to locate Standing Data about the NMI.

When the NMI and checksum are known, a Standing Data search returns the data to assist Retailers to provide a quote to an End-use Customer and find Meter Read data information for the customer switching process.

Detailed information is returned regarding the NMI, based on the NMI Discovery Field Access Rules. Information included is the Network Tariff Code, TNI code, DLF code and information about the Metering configuration. These rules are governed by the NMI's Jurisdiction.

### Search Type 3: Obtain Role Data

Search Type 3 assists in the identification of the Current or most recent previous Retailer for a NMI and allows Retailers to provide a reason for their request.

# NMI Discovery user rights access

Participant Administrators control access to NMI Discovery using the NMI Discovery entity in the Administration menu in the MSATS Web Portal.

### Jurisdictional rules

The type of information, search criteria and number of results returned from the NMI Discovery or Standing Data search is governed by the NMI Discovery Search Key Rules and the NMI Discovery Field Access Rules, both of which are defined by each participating jurisdiction. If the number of corresponding records is greater than the number of records the user is permitted to view, only the number of items within the limit are returned. To reduce the number of records returned, refine the search criteria.

If no NMI Discovery Search Key Rules or NMI Discovery Field Access Rules are defined for a jurisdiction, then it means that the jurisdiction has not allowed NMI Discovery for any NMIs in that jurisdiction.

There is also a further jurisdictional rule that determines whether, in the event of multiple matches, the address of each matching NMI is also returned. The rule is set to "yes" for all jurisdictions allowing NMI Discovery.

Participant Users may
have access to view the
Jurisdictional rules,
using the
Administration menu.
for help, see
Administration on
page 213.

# Using search type 1 (NMI Discovery)

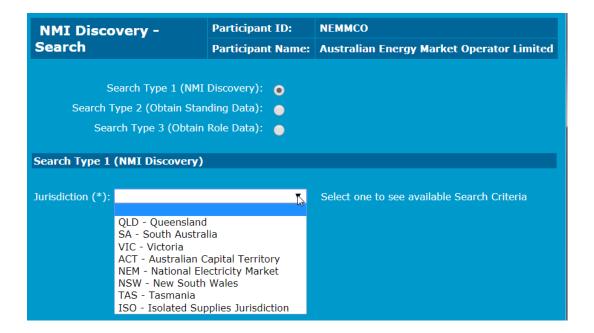
The search type 1 (NMI Discovery) is used to discover the following NMI information when a limited amount of NMI Standing Data is known:

- NMI identifier
- NMI checksum
- · NMI Address Details
- LNSP

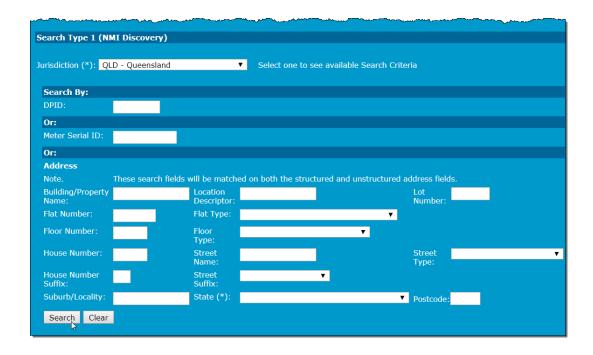
To use search type 1 (NMI Discovery):

- On the main menu, click NMI information and then click NMI Discovery.
- 2. The NMI Discovery Search interface displays, select the Search Type 1 (NMI Discovery).
- 3. In the Jurisdiction drop-down list, select a Jurisdiction. This is a required field.



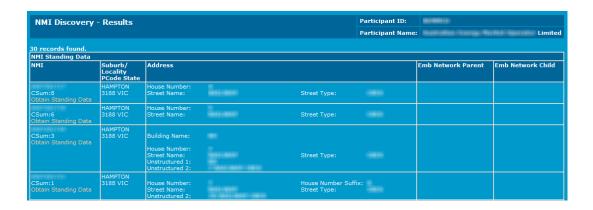


- 4. Complete the fields in the search criteria and click Search. You can search by any of the following criteria:
  - o DPID
  - Meter Serial ID
  - Address (State, Suburb and/or Postcode fields are required for the address criteria)



5. The NMI Discovery - Results display. For an explanation on the returned search fields, NMI Discovery results explained on page 114.

You cannot modify NMI information from the results interface.



If the data does not pass validation, or if a required field is blank, an error message displays.



To access additional NMI information, click Obtain Standing Data in the NMI column.

NMI	Suburb/ Locality PCode State	Addr
CSum:6	HAMPTON	House
Obtain Standing Data	3188 VIC	Stree
C <del>Sum:6</del>	HAMPTON	House
Obtain Standing Data	3188 VIC	Stree
CSum:3 Obtain Standing Data	HAMPTON 3188 VIC	Buildi

- 7. The read-only Obtain Standing

  Data Results interface displays.

  This information is the same as search type 2 Obtain Standing

  Data.
- 8. For more NMI information, click one of the links in the Go To field:
  - View Datastreams (see page 108).
  - View participant relationships (see page 109).
  - View Meter Registers (see page 109).

If the result of a search exceeds
the amount set for the
Jurisdiction, the following
message displays, "The number
of records found exceeds the limit
of xx set by the Jurisdiction.
Please refine your search".



# Using search type 2 (obtain standing data)

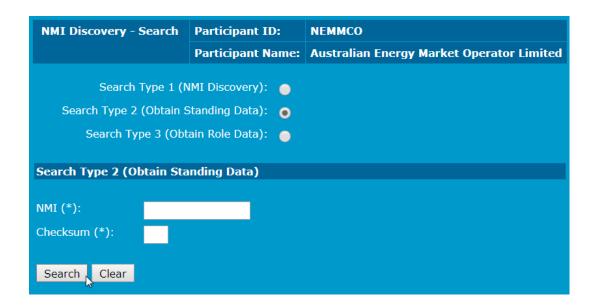
The search type 2 (obtain Standing Data) is used when the NMI and checksum are known.

To use search type 2 (obtain Standing Data):

- On the NMI Information menu, click NMI Discovery
- 2. The NMI Discovery Search displays, select Search Type 2 (Obtain Standing Data).
- Enter both the NMI and the 1 digit Checksum and click Search.

The following steps provide an identical result to selecting the Obtain Standing Data link from search type 1 (NMI Discovery) results.





- The read-only Obtain Standing Data -Results displays.
- If there is no matching NMI, a message displays "NMI Discovery. Invalid Jurisdiction Code".
- For an explanation on the returned search fields, NMI Discovery results explained on page 114.

NMI information cannot be modified from the results interface.

- 7. For more information, click one of the links in the Go To field:
  - View Datastreams (see page 108).
  - View participant relationships (see page 109).
  - View Meter Registers (see page 109).
  - View MSATS Metering Data (see page 111)

Figure 5 Obtain standing data results



# Using search type 3 (obtain role data)

NMI Discovery search type 3 - obtain Role data assists in the identification of the current or most recent previous Retailer for a NMI and allows Retailers to provide a reason for their request.

#### Some search rules are:

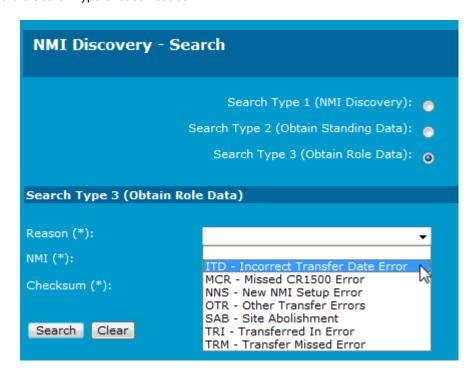
- Correct Retailer: The Retailer that should be listed as the FRMP for the NMI in MSATS. They are the end-use consumer's chosen Retailer.
- Current Retailer or current FRMP: The Retailer who is currently listed with an active Role of FRMP for a NMI in MSATS.
- Most recent previous Retailer: The Retailer who was the FRMP before the NMI was transferred to the party listed as the current FRMP in MSATS.

#### To use search type 3 (Obtain Role Data):

- On the NMI Information menu, click the NMI Discovery submenu.
- Select Search Type 3 (Obtain Role Data) and complete the mandatory Reason, NMI, and Checksum fields, and then click Search.



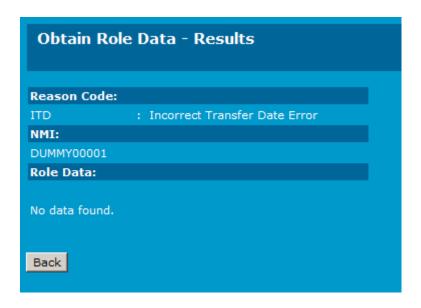
Figure 6 Search Type 3 reason codes



3. The results display similar to the ITD reason code example below.



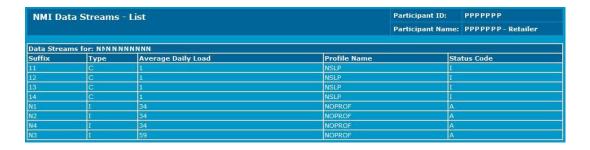
If the request returned no data, as in the case when a NMI was recently created and no previous FRMP exists, then a "No data found" message displays.



# Viewing datastreams

#### To view Datastreams:

- 1. Follow the steps to obtain Standing Data, Using search type 1 (NMI Discovery) on page 100 or Using search type 2 (obtain standing data) on page 104.
- 2. On the Obtain Standing Data Results interface, click View Datastreams.
- 3. The NMI Datastreams List interface displays each Datastream associated with the connection point (NMI).



# Viewing participant relationships

To view participant relationships:

- 1. Follow the steps to obtain Standing Data, Using search type 1 (NMI Discovery) on page 100 or Using search type 2 (obtain standing data) on page 104.
- On the Obtain Standing Data Results interface, click View Participant Relationships.
- 3. The NMI Participant Relationships List interface displays each participant relationship for the connection point (NMI).

NMI Participant Relationships - List			Participant ID:	NEMMCO			
		Participant Name:	Australian Energy Ma	rket Operator Limited			
Partic	Participant Relationships for: NCCCWLJNNN						
Role	Participant ID	Start Date		Activity Status	Updated On		
FRMP	ENGYAUST	25-Feb-201	11 31-Dec-9999	A	31-Dec-9999		
LNSP	ENERGYAP	25-Feb-201	11 31-Dec-9999	A	31-Dec-9999		
LR	POOLNSW	25-Feb-201	11 31-Dec-9999	A	31-Dec-9999		
MDP	TCAUSTM	25-Feb-201	11 31-Dec-9999	A	31-Dec-9999		
MPB	TCAMP	25-Feb-201	11 31-Dec-9999	A	31-Dec-9999		
MPC	TCAUSTM	25-Feb-201	11 31-Dec-9999	A	31-Dec-9999		
ROLR	POOLNSW	25-Feb-201	11 31-Dec-9999	A	31-Dec-9999		
RP	ENERGYAP	25-Feb-201	11 31-Dec-9999	A	31-Dec-9999		

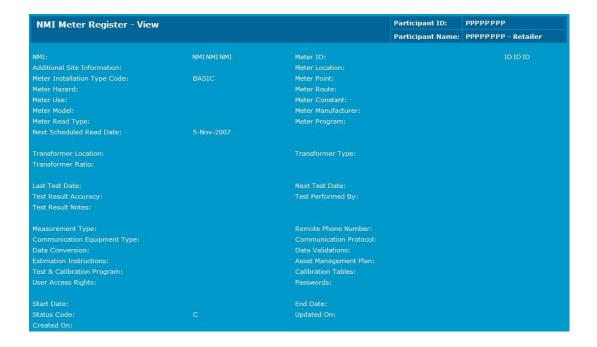
# Viewing meter registers

To view meter registers:

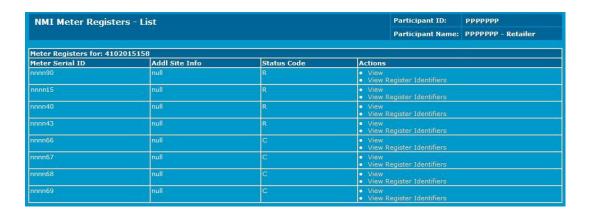
- 1. Follow the steps to obtain Standing Data, Using search type 1 (NMI Discovery) on page 100 or Using search type 2 (obtain standing data) on page 104.
- 2. In Obtain Standing Data Results, click View Meter Registers.
- 3. The NMI Meter Registers List interface displays a list of all meters and related information for the connection point (NMI). Click View in the Actions column to see further information.



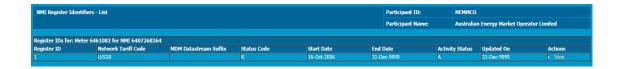
4. The NMI Meter Register - View interface displays.



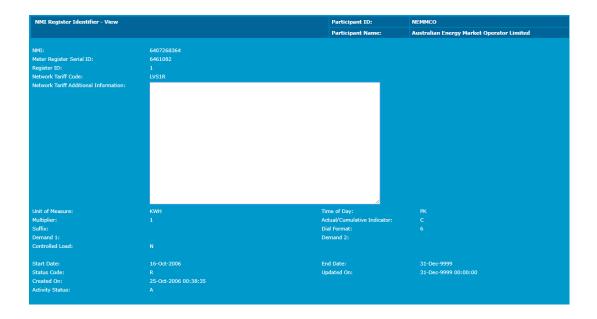
Return to the NMI Meter Registers - List interface and then click View Register Identifiers in the Actions column.



The NMI Register Identifiers - List interface displays, click View in the Actions column to see individual register information.



7. The NMI Register Identifier - View interface displays individual register information.



# **Viewing Metering Data**

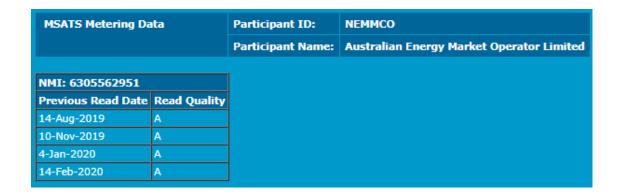
For details about the Previous Read Date (PRD) and Quality Flag process, see Technical Guide to MSATS.

To view MSATS Metering Data:

1. Follow the steps for Using search type 2 (obtain standing data) on page 104.

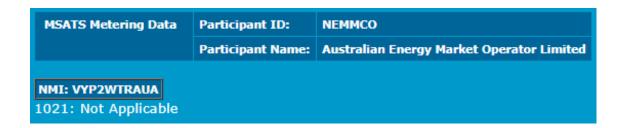
You can also obtain this information using the getNMIDetail API.

- 2. In Obtain Standing Data Results, click MSATS Metering Data (Obtain standing data results on page 106).
- 3. The interface displays the following details:
  - a. NMI
  - b. Previous Read Dates
  - c. Associated Quality Flags



If previous reads are unavailable, one of the following messages display with the reason:

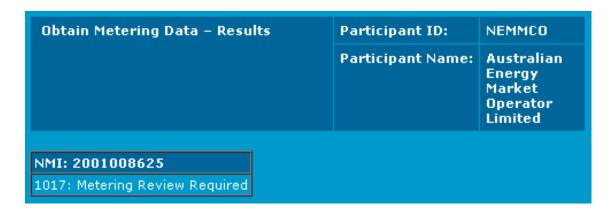
#### Previous reads unavailable



#### No metering data available



### Metering review required



# NMI Discovery results explained

For a detailed explanation of MSATS data, see Standing Data for MSATS.

Table 10 Explanation of NMI Discovery results

Field	Description
Actual or Cumulative Indicator (ActCumInd)	Actual implies volume of energy actually metered between two dates.  Cumulative indicates a meter reading is required to determine the consumption between those two read dates. For an interval meter, ActCumInd normally = A.
Aggregate Flag	Used by MDM to determine which Settlement report the data goes into.
Average Daily Load	The electrical energy delivered through a connection point or Metering point over an extended period normalised to a "per day" basis (kWh).
Building or Property Name	The full name used to identify the physical building or property as part of its location.
Classification Code	Defines the NMI's size e.g. SMALL or LARGE. Used to enforce validation on a number of rules tables.
Customer Classification Code	Classifies the customer as BUSINESS or RESIDENTIAL.  Set by the FRMP for the NMI.
Customer Threshold Code	Classifies the customer load as LOW, MEDIUM, or HIGH.  Set by the DNSP for the NMI.
Controlled Load	Indicates whether the energy recorded by this register is created under a controlled load regime. Controlled Load field contains "No" if register does not relate to a controlled load and contains a description of the controlled load regime.
Datastream Type	Indicates the type of data the Datastream reports, includes Interval and Accumulation. This value must be either "I" (interval), "C" (basic) or "P" (profile).

Field	Description
Dial Format	Describes the register display format. First number is the number of digits to the left of the decimal place, and the second number is the number of digits to the right of the decimal place.
DLF Code	Distribution Loss Factor code. The DLF is used to scale a metered quantity from the Metering location to the relevant Transmission Network Connection point.
DPID	Delivery point identifier - the numeric descriptor for a postal delivery point, which is equal to a physical address. This is an Australia Post assigned number.
Embedded Network ID (Child)	Identifies which embedded network this NMI is the 'child of'. If this field is blank, then the NMI is not in an embedded network.
Embedded Network ID (Parent)	Identifies which embedded network this NMI is the 'parent of'. If this field is blank, then the NMI is not a parent of any other NMI.
End Date	The date until which data in the record applies. (This is not the date the record was updated.)
	If the end date is 31-Dec-9999, it means that the data in this record applies into the future.
Flat or Unit Number	Specification of the number of the flat or unit
Flat or Unit Type	Specification of the type of flat or unit that is a separately identifiable portion within a building or complex (for example, Apartment)
Floor or Level Number	Floor Number is used to identify the floor or level number of a multi-storey building or complex
Floor or Level Type	Floor type is used to identify the floor or level of a multi-storey building or complex.
House Number	The numeric reference of a house or property. Specifically the house number.

Field	Description
House Number Suffix	The numeric reference of a house or property. Specifically the single character identifying the house number suffix.
Jurisdiction	Jurisdiction to which the NMI belongs
LNSP	Local Network Service Provider
Location Descriptor	A general field to capture various references to address locations alongside another physical location.
Lot Number	The lot reference number allocated to an address prior to street numbering.
MDP	Meter Data Provider
Meter Serial Number	A unique serial number for a given NMI
Meter Status	A single character code to denote the status of the meter within the NEM
MPB	Meter Provider - Category B
MPC	Meter Provider - Category C
Multiplier	Multiplier taking a register value and turning it into a value representing billable energy.
Network Tariff Code	Code supplied and published by the LNSP.
Next Scheduled Read Date	Next scheduled read date of the meter.
NMI	National Metering Identifier
Postcode	The numeric descriptor for a postal delivery area, aligned with locality, suburb or place.
Previous Read Date (PRD)	The date of a previous Meter Reading.

Field	Description
Profile Name	A code identifying the name of the algorithmically derived shape used to allocate a Datastream's consumption to trading intervals.
Quality Flag	Determes the quality of the Metering Data.
Register ID	Meter register ID
Register Status	A single character lookup code indicating if the register is active.
Start Date	The start date from which the data in a record applies. (This is not the date the record was created.)
State	Defined State or Territory abbreviation e.g. NSW.
Status Code	Code used to indicate the status of the NMI. To learn more, Administration on page 213.
Stream Status Code	Code used to indicate the status of the suffix. This value must correspond to a valid stream status code in the MSATS_Codes_Values_table.
Street Name	Records the thoroughfare name, excluding its type
Street Name Suffix	Records any street suffixes, for example, SW, NE.
Street Type	Records the street type abbreviation, for example, ST or RD.
Suburb or Locality	The full name of the address locality.
Time of Day	Industry developed codes to identify the time validity of register contents.
TNI Code	Transmission Node Identifier; identifies the Transmission Network Connection Point.
Unit of Measure	Code to identify the Unit of Measure (UOM) for data held in this register
Unstructured Address 2	To provide the unstructured address where a structured address cannot be supplied

Field	Description
Unstructured Address 3	To provide the unstructured address where a structured address cannot be supplied.
Unstructured Address1	To provide the unstructured address where a structured address cannot be supplied. Subsequent unstructured address fields exclude information about the locality, postcode and state.

# NMI data returned (multiple matches)

Detailed NMI information is provided to Participant Users when there are single or multiple matches returned on a NMI Discovery search. In addition to providing the NMI and the NMI checksum, MSATS returns the following address fields from the CATS\_NMI\_DATA table, provided the jurisdiction has authorised the return of the address details:

Flat Type	Flat Number	Floor Type
Floor Number	Building Name	Location Descriptor
House Number	House Number Suffix	Lot Number
Street Name	Street Type	Street Suffix
Locality	State	Postcode
DPID Number	Unstructured Address 1	Unstructured Address
Unstructured Address 3	EmbNet Parent	EmbNet Child

These fields are returned on NMIs where there are single or multiple matches, and shown when the NMI Discovery is executed using the web portal or the batch handlers. The address details are provided to help a Prospective Retailer narrowdown the search in the event of multiple matches.

### **NMI** master

### NMI master overview

The NMI Master submenu is used to locate and view the following information regarding NMI records:

- All records (both active and inactive) for a single NMI without being restricted by, a from and to date range.
- All NMIs that have or have had a relationship with the Role during a nominated date range.

# NMI master user rights access

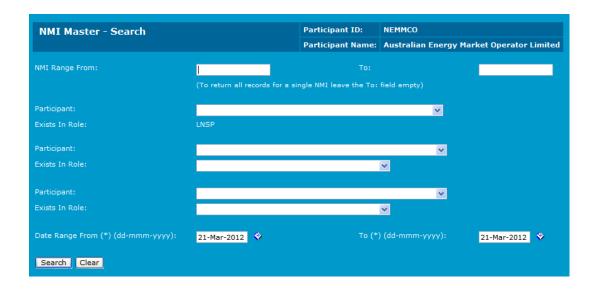
Participant Administrators control access to NMI Master using the NMI Master entity in the Administration menu in the MSATS Web Portal.

# Using the NMI master search

To search for a NMI:

- 1. On the main menu, click NMI Information and then click NMI Master.
- The NMI Master Search interface displays. Type the range of NMIs in the NMI Range From and To fields.





Note: to see all master records for a single NMI, (both active and inactive records), enter a NMI in the NMI Range From field and leave the NMI Range To field blank.

Click the Participant drop-down arrow and select the participant who is currently assigned the Role of LNSP for the NMI range. All participants display in the list.



- 4. If required, select additional participants from the Participant and Exists In Role drop-down lists. Two additional participant and Role combinations can be selected.
- 5. Click the calendar icon to select the Date Range From and Date Range To. These are required fields with a range of up to 7 days allowed for selection. Selecting a Date Range limits the search to all NMIs that were current during the period and where the participant was active. The Date Range defaults to tomorrow's date (system date + 1).

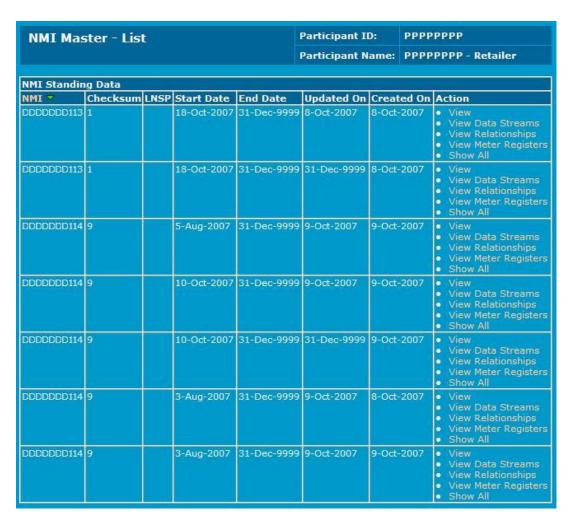
Alternatively, type the dates in dd-mmm-yyyy format.



6. Click Search to display the NMI Master - List search results.

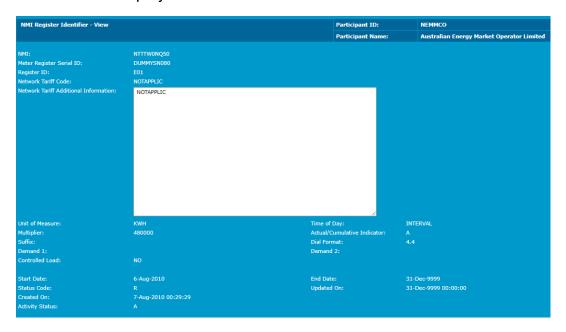
If there are no corresponding NMIs, the following message displays, "Your search did not return a result, please try some other search criteria".

Note: to sort the NMI Standing Data information, click the arrow in the NMI column heading. A NMI can be listed more than once on this interface if there are multiple records in the selected date range.



7. To obtain further information, in the **Action** column, do one of the following:

o Click View to display further NMI data.



- Click View Datastreams to see Datastream information.
- Click View Relationships to see participant relationships.
- Click View Meter Register to see meter register information.
- Click Show All to see a list of all NMI data records for the selected NMI without the date range criteria.

# **NMI** master summary

# NMI master summary overview

The NMI Master Summary submenu displays what the NMI looks like on a selected date. This can be either the current date or a previous date.

# NMI master summary user rights access

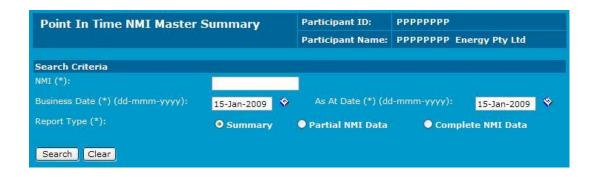
Participant Administrators control access to NMI Master Summary using the NMI Master entity in the Administration menu in the MSATS Web Portal.

# Using master summary search

To do a NMI master summary search:

- On the main menu, click NMI Information and then click NMI Master Summary.
- The Point In Time NMI Master Summary interface displays with the Business Date and the As At Date fields pre-filled with the current date.





- 3. To change the dates, do one of the following:
  - Enter a date directly into the field in dd-mmm-yyyy format.
  - Click the calendar icon and select a date from the MSATS calendar.





- 4. Enter the NMI; this is a required field.
- 5. Select the amount of detail to display by choosing a Report Type:
  - Summary
  - Partial NMI Data
  - Complete NMI Data
- 6. Click Search.

Alternatively, click Clear to clear the fields and make your selections again.



- 7. The following items display on the Point In Time NMI Master Summary interface under the Search button.
- 8. Select any of these items to show further details. See the examples below.

Note: the information displayed differs according to the Report Type selected. The examples below use the Report Type - Complete NMI Data.



Figure 7 Example of the information in the NMI Data Items section.

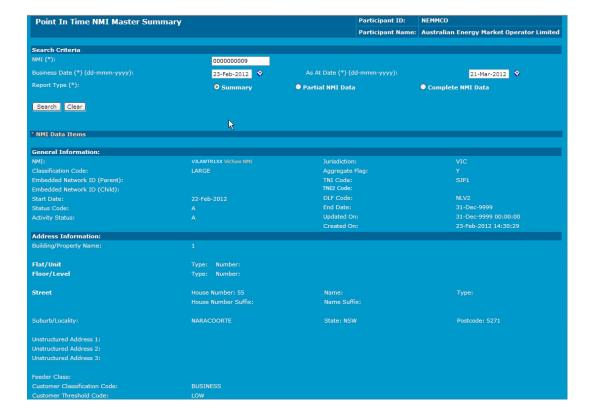


Figure 8 Example of the information in the NMI Participant Relations section.

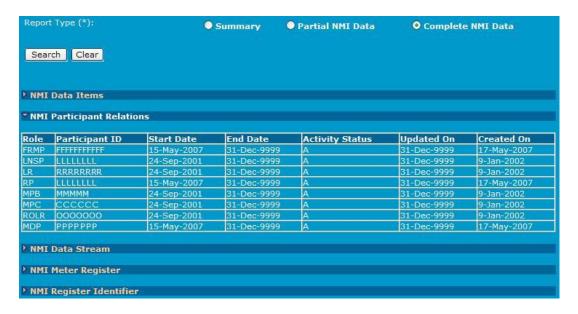


Figure 9 Example of the information in the NMI Datastream section.

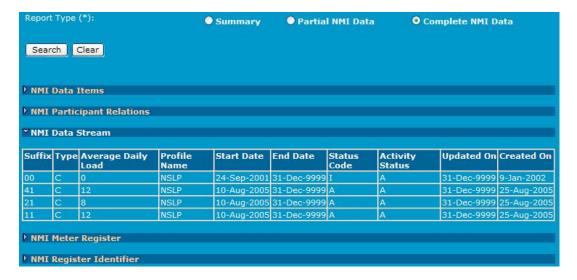
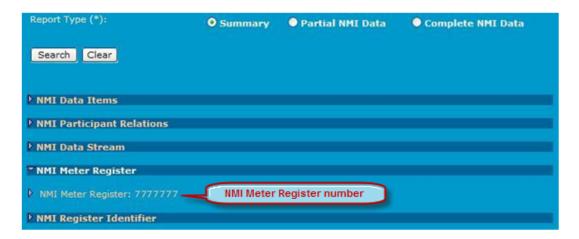


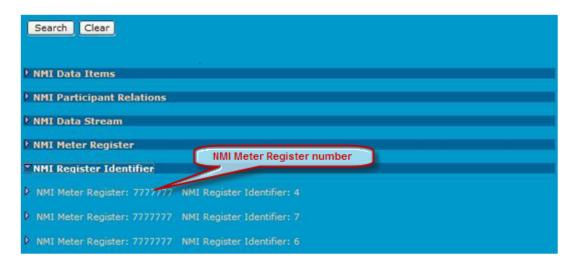
Figure 10 Example of the information in the NMI Meter Register section.



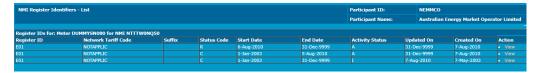
 Click the NMI Meter Register number, to view details for an individual NMI Meter Register item.



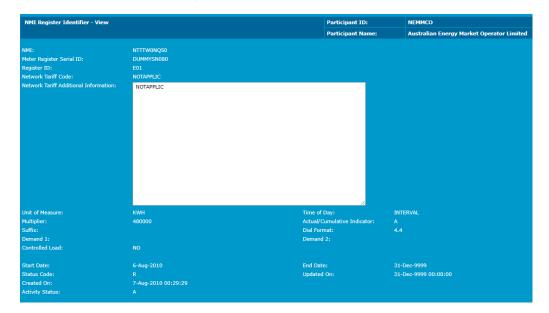
Figure 11 Example of the information in the NMI Register Identifier section.



 Click the NMI Register Identifier number to display the list of NMI registers for NMI meter registers.



Click the NMI Meter Register number to display further details.



# Participant relationships

# Participant relationships overview

From the Participant Relationships menu, you can list associated participants and the Roles they are assigned for each NMI. It also contains an option to see detailed participant information and history.

# Participant relationships user rights access

Participant Administrators control access to Participant Relationships using the Participant Relationships entity in the Administration menu in the MSATS Web Portal.

# Searching for participant relationship information

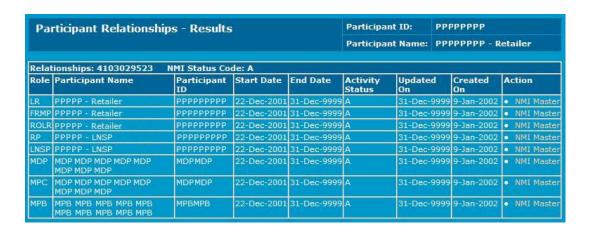
To search for participant relationship information:

- On the main menu, click NMI Information and then click Participant Relationships.
- The Participant Relationships Select interface displays. In the Enter NMI field, type the NMI and click Show Related Participants.





- 3. The Participant Relationships Results interface displays with the results sorted by participant name. This interface is read-only; you cannot modify NMI information from this interface.
  - If the value in the Activity Status column is I, then the record is inactive. The date the record became inactive displays in the Updated On column.
- 4. Click NMI Master in the Action column to select additional information for the NMI. You are directed to the NMI Master Search interface.



# **Profile Preparation**

About profile preparation	131
Profile data source	132
Profile methodology	135
Profile area	137
Profile name	140

# About profile preparation

Authorised Participant Users can perform Metering Data Management (eMDM) functions from the Profile Preparation menu.

#### These functions include:

- · Defining profile methods and areas
- · Defining data sources
- · Creating profiles

### Profile data source

### Profile data source overview

Profile data sources define the NMI Datastreams from which a profile receives its profiling or Metering Data. Each data source contains a list of NMI Datastreams that make up the profile, along with its weighting (such as, the weighting each individual stream of data contributes to the total).

These are the interval Datastreams used by the profiling engine to calculate the profile shape and data for profiling a non-interval meter. This data could be; the half-hour data from actual interval meters; the half-hour data of a profile shape provided by a profile preparation service; or a combination of both.

# Profile data source user rights access

Participant Administrators control access to Profile Data Source using the Profile Data Source entity in the Administration menu in the MSATS Web Portal.

# Viewing Profile data source

To view profile data source information:

- 1. On the main menu, click Profile Preparation and then click Profile Data Source.
- 2. The Profile Data Source List displays, for help understanding the fields, Profile data source fields on page 134. To view further information, in the Action column do one of the following:



- Click View to see the Profile Data Source View interface.
- Click Show All to see the Profile Data Source Show All interface.

Click the Name column heading to sort by ascending or descending order.

Figure 12 Profile Data Source - List

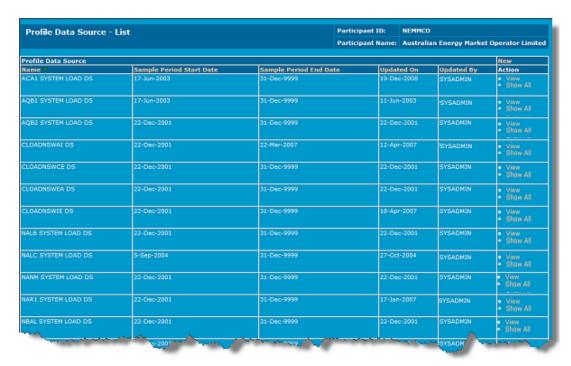


Figure 13 Profile Data Source - View

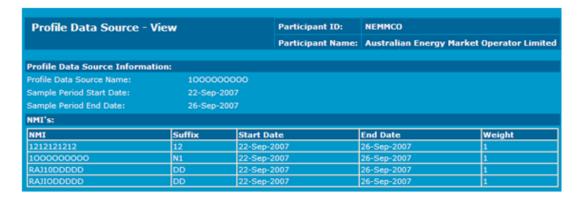
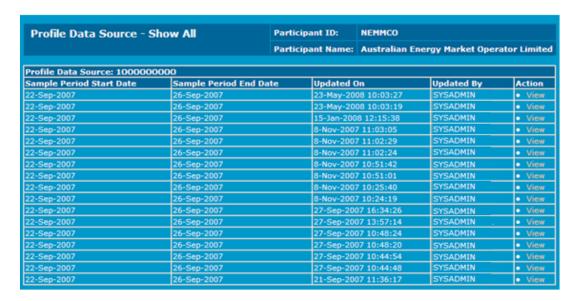


Figure 14 Profile Data Source - Show All



To return to the Profile Data Source - View interface, on the Profile Data Source - Show All interface, click View in the Action column.

Table 11 Profile data source fields

Field	Description
Profile Data Source Name	Unique name given to a profile data source record
Sample Period Start Date	The date MSATS begins to collect interval meter data for the purposes of estimation and Settlement.
Sample Period End Date	The end-date MSATS stops collecting interval meter data for estimation and Settlement. If the data source is still in use for future dates, this is 31-Dec-9999.
NMI	The unique identifier for the profile data source record.
Suffix	The Datastream suffix for the identified NMI that contains the data that is a data source for the named profile.

Field	Description
Start Date	The date interval meter data associated with this NMI suffix was included in the data sources for this profile.
End Date	The date at which interval meter data associated with this NMI suffix ceased to be included in the data sources for this profile. If data is still included for this suffix, this is 31-Dec-9999.
Weight	Multiplication factor applied to the data for the identified suffix. NMI suffixes with a higher weight have higher importance in the calculation of a profile shape. Therefore, a weight of 0.99 greatly influences the profile where a weight of 0.02 does not.

# Profile methodology

# Profile methodology overview

A profile methodology defines an algorithm that is used to calculate values for missing interval data when it is required for a Settlement. Every Datastream has a profile type associated with it. Interval meters have a profile type that is associated with its own historic data. Non-interval meters have either a profile type of NSLP or another profile.

Profile methodology defines what data is extracted from the data source and applied to consumption data. It defines the season and day types used for a profile.

# Profile methodology user rights access

Participant Administrators control access to Profile Methodology using the Profile Methodology entity in the Administration menu in the MSATS Web Portal.

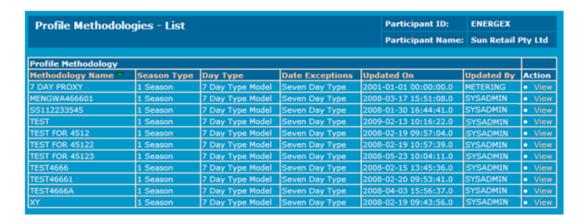
# Viewing profile methodology

To view profile methodologies:

- On the main menu, click Profile Preparation and then click Profile Methodology.
- The Profile Methodologies List displays, click View in the Action column to view further details. For help understanding the fields Profile Methodologies fields on the next page.



Note: click the **MethodologyName** column heading to sort by ascending or descending order.



3. The Profile Methodology - View interface displays.



Table 12 Profile Methodologies fields

Field	Description
Methodology Name	The name of the methodology; used throughout MSATS to represent this methodology.
Season Type	A season model divides the year into groups of time. For example, a "4 season" season type has 4 groups of days, Winter, Spring, Summer and Autumn. When the profiling engine processes a profile, it looks for the first day of "full data" with the same season type. In MDM, a single season is used.
Day Type	A day type model divides a week into groups of time. For example, a "2-day" day type has 2 groups of days, weekends and weekdays. When the profiling engine does a look up of a profile for a particular day's data it looks for the first full day of full data with the same day type. In MDM, a 7-day model is used.
Date Exceptions	Date Exceptions are a set of days when the normal day types do not apply. For example, For a holiday that falls on a weekday, the weekend value is used instead of the weekday profile.
Updated On	The date and time the profile methodology was updated.
Updated By	The Participant User ID of the operator who updated the record.

# Profile area

### Profile area overview

A profile area is a virtual grouping of TNIs used for Settlement calculations. A single 'Net System Load Profile' (NSLP) is calculated for each profile area defined in MSATS.

Each TNI is allocated to a single profile area. If a jurisdiction metrology procedure permits type 6 Metering installations, the TNIs must be assigned to profile areas in accordance with the metrology procedure. In jurisdictions where a metrology procedure is not active for type 6 Metering installations, the allocation of TNIs to profile areas may be arbitrary.

A profile area can only be assigned to one Jurisdiction. Profile areas are based loosely on DNSP boundaries. The profile area identifies one or more TNI data sources for which the associated profile methodology is applied.

# Profile Area user rights access

Participant Administrators control access to Profile Area using the **Profile Area** entity in the Administration menu in the MSATS Web Portal.

# Viewing the profile area

To view the profile area:

- 1. On the main menu, click Profile Preparation and then click Profile Area.
- 2. The Profile Area List displays. For help understanding the fields, Profile area fields on the next page.

Profile Preparation

Profile Data Source

Profile Methodology

Profile Area

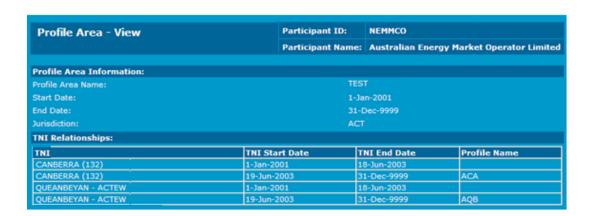
Profile Name

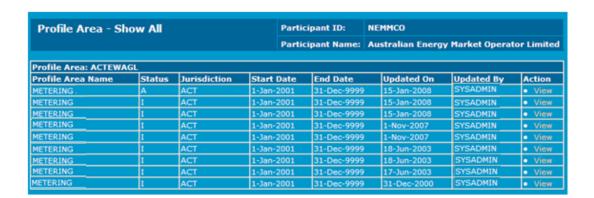
Proxy Day

Note: click any of the column name headings to sort by ascending or descending order.

Profile Area - List				Participant ID:	NEMMCO	
	Participant Name:	Australian Energy Market Operator Limited				
Profile Area List						
Profile Area Name ▼	Status	Jurisdiction	Update	ed On	Updated By	Action
CITIPOWER	А	VIC	15-Jan-	2008	NEMMCO	View Show All
COUNTRYENERGY	А	NSW	7-Jun-2	006	NEMMCO	View Show All
ENERGEX	А	QLD	4-Jun-2	007	NEMMCO	View Show All
ENERGYAUST	А	NSW	24-Sep-	-2007	NEMMCO	View Show All
INTEGRAL	А	NSW	5-Dec-2	2006	NEMMCO	View Show All
POWERCOR	А	VIC	10-Aug	-2005	NEMMCO	View Show All

- 3. To view further details, from the Action column do one of the following:
  - Click the View link.
  - Click the Show All link.





- On the Profile Area Show All interface, click View to return to the Profile Area - View interface.
- Click the Profile Area sub menu to return to the Profile Area List interface.

Table 13 Profile area fields

Field	Description
Profile Area Name	A unique identifier for the profile area record.
Status	Status of the reading. A status is included for each ½ hourly reading.  A - active

Field	Description
	I - inactive
Jurisdiction	The jurisdiction in which this profile area applies.
Start Date	The start date of the profile area.
End Date	The date the profile area ceased to be active. If the profile area is still in use for future dates, this is 31-Dec-9999.
Updated On	The date and time the profile area was updated.
Updated By	The Participant User ID of the operator who updated the record.

# **Profile name**

#### Profile name overview

A profile name associates a data source with a methodology and applies it in one or more profile areas.

# Profile name user rights access

Participant Administrators control access to Profile Name using the **Profile Name** entity in the Administration menu in the MSATS Web Portal.

# Viewing profile names

#### To view profile names:

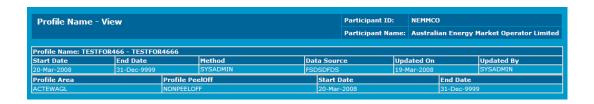
- On the main menu, click Profile Preparation and then click Profile Name.
- 2. The **Profile Name List** displays. For help understanding the fields, Profile name fields on the next page.

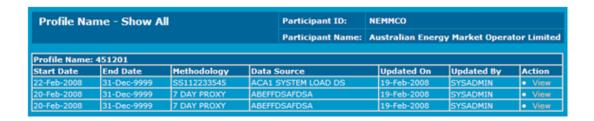


Note: click the **Profile Name** column to sort by ascending or descending order.



- 3. To view further details, from the Action column do one of the following:
  - Click the View link.
  - Click the Show All link.





- On the Profile Name Show All interface, click View to return to the Profile Name- View interface.
- Click the Profile Name sub menu to return to the Profile Name List interface.

Table 14 Profile name fields

Field	Description
Profile Name	A unique name for the set of rules.
Description	A description of the profile name.
Start Date	The start date of the profile.
End Date	The date the profile ceased to be active. If the profile name is still in use for future dates, this is 31-Dec-9999.
Methodology	The profile methodology assigned to this profile name.
Data Source	The profile data source that provides the data for the profile.
Updated On	The date and time the profile was last updated.
Updated By	The Participant User ID of the operator who last updated the profile name.
Profile Area	The name of each profile area where the profile applies.
Profile Peel Off	This field indicates whether profiled data prepared for Datastreams with this profile name must be peeled off as part of the NSLP calculation. If the value is 'PEELOFF', interval data derived using this profile name is subtracted from the system load. If the value is NONPEELOFF, it is not subtracted.

# **Data Load Import**

About data load import	143
Participant inbox	143
Participant outbox	148
Participant hub queue	155
Participant archive	157
Participant inbox archive	160
Dayzip download	162

# About data load import

The Data Load Import menu provides storage for exchanges, carrying messages between the MSATS system and participant systems.

# Participant inbox

# Participant inbox overview

The participant inbox is where participants place files for processing by the MSATS system.

#### Participant inbox user rights access

Participant Administrators control access to Participant Inbox using the Data Load Import (Participant Inbox & Participant Outbox) entity in the Administration menu in the MSATS Web Portal.

# Viewing the participant inbox

- On the main menu, click Data Load Import and then click Participant Inbox.
- The Participant Inbox List interface displays with a listing of files that have been uploaded into the MSATS system. Uploaded files can also be deleted from the participant inbox by doing the following:
- ▼ Data Load Import

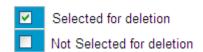
  Participant Inbox

  Participant Outbox

  Participant Archive

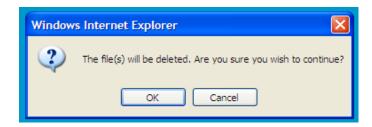
  Participant Inbox Archive

  Dayzip Download
- Click Select All to place a tick next to all File Names and then click Delete Selected.
- Delete individual files by placing a tick next to each File Name and clicking Delete Selected.
- Click De-select All to unselect any File Names with a tick.





3. Click OK to confirm the deletion.



#### Uploading a file

#### To upload Transactions:

- Create an .XML file containing the Transaction information. For help creating aseXML files, see aseXML Guidelines.
- Compress the file and save it with a zip extension, following the MSATS file name standards. For example:

catsm\_<Participantid>\_<uniqueld>.zip

For help, see file name format in Technical Guide to MSATS.

- 3. On the main menu, click Data Load Import and then click Participant Inbox.
- 2. On the Participant Inbox List interface, click Upload in the far right column.

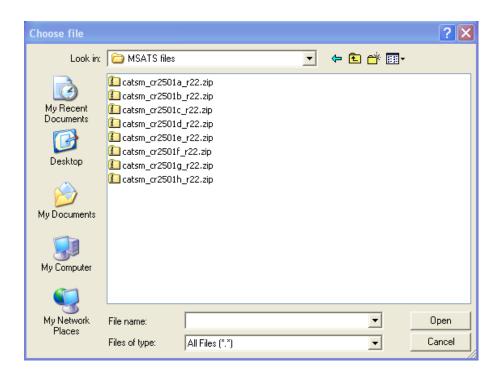


3. The File Upload interface displays, click Browse.



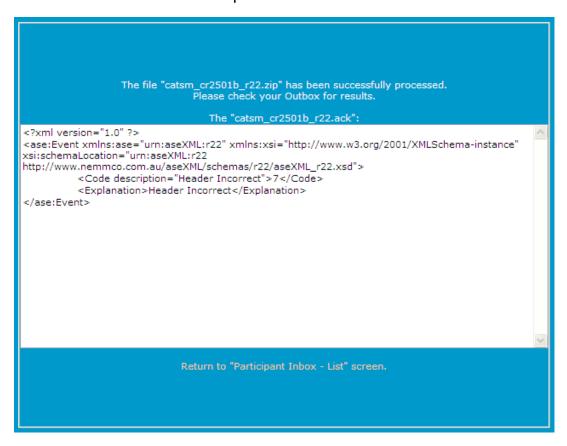
For help with the MDP file format, see MDM File Format and Load Process.

4. Locate your .ZIP file and click Open.



5. The selected file is inserted into the File To Upload field. Click Submit to submit the file for validation.

6. MSATS performs 1st level validation, places the ACK file in your Participant Outbox, and displays the contents on the interface.
If MSATS is unable to load the data, it displays a code that describes the reason for the failure and an explanation.



- 7. MSATS provides a Receipt ID for each transaction. If there is only one transaction, it is the same Receipt ID. If there are multiple transactions, the first one has the same Receipt ID as the message Receipt ID and the rest of the transactions have different IDs. The numeric characters at the end of each transaction Receipt ID correspond to the request ID of the change request. This can be used to search for the change request and check the status of the transaction.
- 8. Check your Participant Outbox to see the uploaded file in the Participant Inbox List. See Viewing the participant inbox on page 144). In each case, the status = "Accept" if it passed the validations or "Reject" if it did not pass the validations. It is possible that the message is accepted but not the transactions. This is the case if, for example, the file is well formed, the header details are correct but the nominated user did not have the rights to perform specific transactions within the transactions element.

9. When MSATS completes validation, you receive a response Transaction zip file.

Occasionally, MSATS cannot process the uploaded file immediately. In this case, the .ZIP file remains in your participant's inbox until it is processed. After processing an .ACK file is placed in your participant inbox confirming the upload. For each accepted transaction, MSATS performs a second set of validations and processes the request.

Figure 15 Change request acknowledgement example.

Inbox Contents		Upload	
File Name		Last Modified	File Size
	catsl_energexbatch_229637244.ack	Tue Dec 09 11:20:45 GMT+10:00 2008	871
	nmidh_dpid_energexbatch2.zip	Wed Feb 13 08:30:53 GMT+10:00 2008	640
	nmidh_dpid_energexbatch3.zip	Wed Feb 13 12:36:45 GMT+10:00 2008	639

# Participant outbox

#### Participant outbox overview

The participant outbox is used by MSATS to place files for transfer to participant systems.

# Participant outbox user rights access

Participant Administrators control access to Participant Outbox using the Data Load Import (Participant Inbox & Participant Outbox) entity in the Administration menu in the MSATS Web Portal.

# Viewing the Participant Outbox

#### To view the participant outbox:

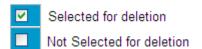
On the main menu, click Data Load Import and then click Participant Outbox.

Note: clicking Mailbox is the same as clicking Participant Outbox from the Data Load Import menu.

The Participant Outbox - List displays with the files waiting to be transferred from the MSATS system to a participant system. To acknowledge files, do one of the following:

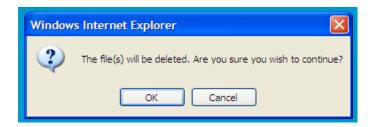


- Click Select All to place a tick next to all File Names and then click Acknowledge Selected.
- Click De-select All to unselect any File Names with a tick.
- Select individual File Names and then click Acknowledge Selected.





3. Files are deleted once they are acknowledged; click **OK** to confirm the deletion. See **Important Note** below.



4. A confirmation message displays confirming the Acknowledgement.



The files stored in the participant outbox must be acknowledged as soon as possible to ensure they are moved from the participant outbox by MSATS.

When the number of unacknowledged outbound files in the participants outbox (that is, change request responses and notifications from MSATS) reaches a system limit, the batch handler stops generating outbound files. No outbound batch transactions are produced until the files in the participant outbox have been reduced to within the limit.

On occasions when MSATS cannot archive an acknowledged .ZIP file immediately, the following error message displays and the .ZIP file is deleted later.

However, the .ACK file that is created at the same time as the .ZIP file may not be automatically deleted; therefore, it must be done manually. The contents of the .ZIP file must be read and saved prior to acknowledging it.

To do this, confirm the related .ZIP file has been moved by MSATS from the participant inbox, then select the relevant checkbox in the participant inbox for the .ACK file and click **Delete Selected**.

# Viewing a change request response

For each accepted transaction in the .XML file, a change request response (CRR) transaction is generated. By default, each response transaction is in a separate .XML file in a separate .ZIP file. Therefore, if there are multiple transactions in the one batch file, multiple .ZIP files are placed into the participant outbox.

Because the response is sent to the <PARTICIPANTID>batch user ID, only someone logged on to the MSATS web portal with that user ID (or with a right that provides access to all items in the participant's outbox) can see the response message. That is, the originator of the change request may not necessarily see it.

Depending on the notification rules, the <PARTICIPANTID>BATCH user ID and other parties' equivalent user IDs may also receive notifications to indicate the status of the change request (Administration on page 213).

Participants can request AEMO to 'bundle' some types of outbound transactions (contact the AEMO's support hub). 'Bundling' is the term used when there are many transactions in a single .XML file. When notifications are bundled, there is no longer a one-to-one relationship between an outbound transaction, message and .ZIP file.

To view a change request response:

1. On the main menu, click **Data Load Import** and then click **Participant Outbox** submenu.

Note: this is the same as clicking the message link on the main menu.

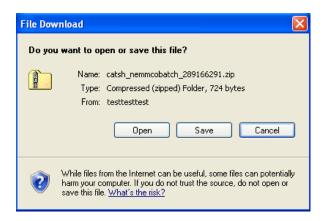


2. The Participant Outbox - List displays, click the File Name.

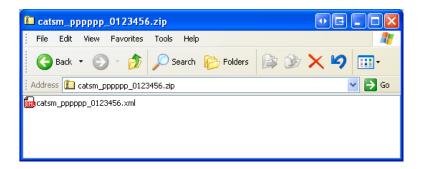


3. Click Open to open the file or Save to save it to a location on your PC.

Alternatively, click Cancel to return to your Participant Outbox - List.



4. Open the .ZIP file and select the .XML file.



- 5. The file contents display. Read the message to determine whether the change request is accepted.
  - Accepted change request the change request response transaction
    has Information written in the <Event severity> element and 0 (zero) in
    the <Code> element. Therefore, the status is requested (REQ), see
    Accepted change request example. on the next page.
  - Rejected Change Request the change request response transaction has an error code in the <Code> element (1199 in the example below) and an <Explanation> element, which is a general error message with, if applicable, specific additional information. In the example, the general part of the error message says the register status does not have a valid value. Therefore, the status is rejected (REJ), see Rejected change request example. on page 155.
  - Notifications having updated the status of the change request to REQ or REJ, notification messages are sent to the appropriate participants (in the form of .XML files stored within .ZIP files) as per the Notification Rules for the change reason code. The participant notified may be the initiator of the change

If the change request status is REJ, no more processing takes place.

request or other parties for example, parties with a right to object. In some special cases (for example, with streamlined change reason codes), there may be no notifications at all.

This is an example of a change request response transaction for an accepted change request (such as, one that passed the second level validation).

Figure 16 Accepted change request example.

```
<?xml version="1.0" ?>
- <ase:aseXML xmlns:ase="urn:aseXML:r22" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="urn:aseXML:r22
   http://www.nemmco.com.au/aseXML/schemas/r22/aseXML_r22.xsd">

    <Header>

     <From description="Australian Energy Market Operator">NEMMCO</From>
     <To description="PPPPPPPP">PPPPPP</To>
     <MessageID>NEMMCO-MSG-289496962</MessageID>
     <MessageDate>2009-03-19T11:48:44+10:00
     <TransactionGroup>CATS</TransactionGroup>
     <Priority>Medium</Priority>
     <SecurityContext>NEMMCOBATCH</SecurityContext>
     <Market>NEM</Market>
   </Header>
 - <Transactions>
   - <Transaction transactionID="CHRQ-63133546" transactionDate="2009-03-19T11:48:44+10:00"</p>
      initiatingTransactionID="Auto-Test-1903 -4001">
     - <CATSChangeResponse version="r4">
        <RequestID>64621581</RequestID>
      - <Event severity="Information">
          <Code>0</Code>
        </Event>
      </CATSChangeResponse>
     </Transaction>
   </Transactions>
 </ase:aseXML>
```

Note: the request ID you use to search for a change request is held in the RequestID field.

This is an example of a change request response transaction for a rejected change request (such as, one that failed the second level validation).

Figure 17 Rejected change request example.

```
<?xml version="1.0" ?>
- <ase:aseXML xmlns:ase="urn:aseXML:r22" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</p>
   xsi:schemaLocation="urn:aseXML:r22
   http://www.nemmco.com.au/aseXML/schemas/r22/aseXML_r22.xsd">

    <Headers</li>

     <From description="Australian Energy Market Operator">NEMMCO</From>
     <To description="PPPPPPPP">PPPPPP</To>
    <MessageID>NEMMCO-MSG-289496965</MessageID>
     <MessageDate>2009-03-19T11:53:09+10:00
     <TransactionGroup>CATS</TransactionGroup>
    <Priority>Medium</Priority>
     <SecurityContext>NEMMCOBATCH</SecurityContext>
     <Market>NEM</Market>
   </Header>

    <Transactions>

   - <Transaction transactionID="CHRQ-63133548" transactionDate="2009-03-19T11:53:09+10:00"</p>
      initiatingTransactionID="Auto-Test-1903 -4050">
     - <CATSChangeResponse version="r4">
        <RequestID>64621583</RequestID>
      - <Event>
          <Code>1199</Code>
          <Explanation>BV200_MDM_CATS_Validation.Perform_MDM_CATS_Validations ->
           BV200_MDM_CATS_Validation.Check_Registers -> Request Id: 64621583 NMI:
           NEMMT00032 Register Status must be either C or R. Has a valid Register been
           created for this Meter ?</Explanation>
        </Event>
      </CATSChangeResponse>
     </Transaction>
   </Transactions>
 </ase:aseXML>
```

# Participant hub queue

In the Data Load Import > Participant Hub Queue, participants who opt for API PULL as their Transaction delivery protocol can:

- View a total of 100 unacknowledged records.
- Manage messages, including MDMT messages.

# Participant hub queue user rights access

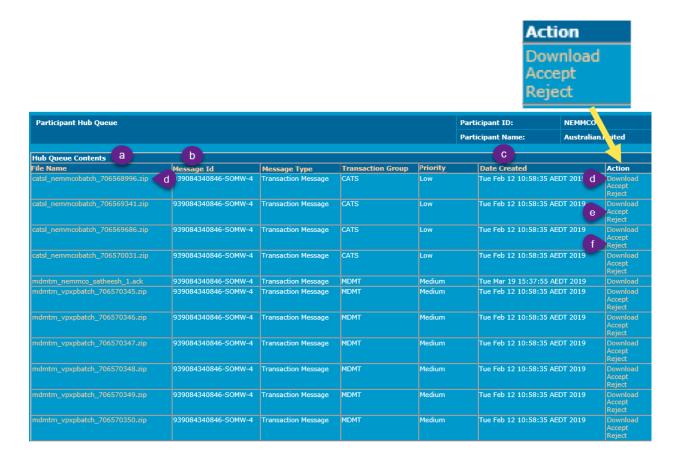
Participant Administrators control access to Participant Inbox using the Data Load Import (Participant Inbox & Participant Outbox) entity in the Administration menu in the MSATS Web Portal.

#### Viewing the Participant Hub Queue

- On the main menu, click Data Load Import and then click Participant Hub Queue.
- The Participant Hub Queue interface displays where you can do the following (see Participant hub queue on the next page:
  - View the total number of messages queued and ready for pulling from the e-Hub.
  - Click an orange heading to sort a total of 100 unacknowledged transaction messages.
  - c. See the message's age in Date Created.
  - d. Download messages: Click the File Name or click Download in the Action column.
  - e. Accept messages: Click Accept in the Action column.
  - f. Reject messages. Click Reject in the Action column.

▶ Transactions
 ▶ NMI Information
 ▶ Profile Preparation
 ▶ Data Load Import
 ▶ Participant Inbox
 ▶ Participant Outbox
 ▶ Participant Hub Queue
 ▶ Participant Archive
 ▶ Participant Inbox Archive
 ▶ Dayzip Download
 ▶ Metering Data
 ▶ Settlement Data
 ▶ Reports and Alerts
 ▶ B2B Browser

Figure 18 Participant hub queue



# Participant archive

# Participant archive overview

Files are moved from the Participant Outbox to the Participant Archive folder once the participant has acknowledged the file. Use the Dayzip Download submenu to zip all files in the Participant Archive and save them to your local computer, Dayzip download on page 162.

# Participant archive user access rights

Participant Administrators control access to Participant Archive using the View Participant Archives entity in the Administration menu in the MSATS Web Portal.

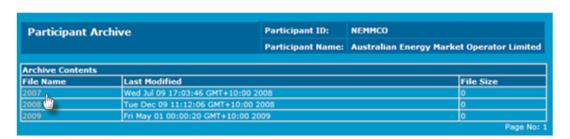
For help assigning user access rights, see
Guide to User Rights
Management.

# Viewing the participant archive

To view the participant archive:

- On the main menu, click Data Load Import and then click Participant Archive.
- 2. The Participant Archive displays. To open the archive file contents, click the File Name link.





3. To view further details, click the File Name link again.



4. The next information level displays, click the remaining File Name links to view all details.



## Retrieving an archived file

Archived files are read-only. You cannot delete or manipulate them.

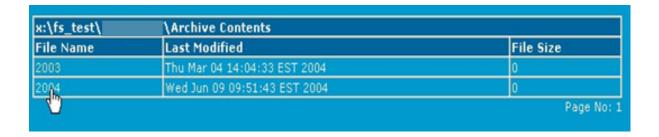
To retrieve a file from the Participant Archive:

1. In the web portal > Data Load Import, click Participant Archive.

The archive year folders display with a folder for each year having archived data (the year a file was acknowledged and deleted, not the year it was created although sometimes they are the same).

The Last Modified date is the date and time the most recent subfolder for that Year was created (the date the most recent Month folder was created).

2. To find a file to download, click the year.



3. A folder for each month displays where the name of the folder is the month number followed by the month abbreviation.

Keep drilling down through months, days, and time until you come to a folder with zip files.

Use your browser Back button to navigate back through the folders.

4. To open or save zip files, click on the file hyperlink.

There is no relationship between the day folder and the date of the file name because the Year, Month, Day, and Time folder names are based on the date and time files were deleted and archived. The date and times associated with the files themselves are the date and time the file was created.

File Name	Last Modified	File Size
catsm_engyaustbatch_22884057.zip	Sat Jun 05 01:10:54 EST 2004	1129
catsm_engyaustbatch_22884059.zip	Sat Jun 05 01:10:54 EST 2004	1132
catsm_engyaustbatch_22884063.zip	Sat Jun 05 01:10:54 EST 2004	1127
catsm_engyaustbatch_22884065.zip	Sat Jun 05 01:10:54 EST 2004	1133
catsm_engyaustbatch_22884075.zip	Sun Jun 06 17:49:11 EST 2004	1011
catsm_engyaustbatch_22884081.zip	Sun Jun 06 17:57:19 EST 2004	918
catsm_engyaustbatch_22884087.zip	Sun Jun 06 17:57:19 EST 2004	1015
catsm_engyaustbatch_22884093.zip	Sun Jun 06 21:12:31 EST 2004	1007
catsm_engyaustbatch_22884181.zip	Thu Jun 10 16:07:10 EST 2004	1535
catsm_engyaustbatch_22884183.zip	Thu Jun 10 16:07:10 EST 2004	1541
catsm_engyaustbatch_22884187.zip	Thu Jun 10 16:07:10 EST 2004	1533
catsm_engyaustbatch_22884189.zip	Thu Jun 10 16:07:10 EST 2004	1539
catsm_engyaustbatch_22884193.zip	Thu Jun 10 16:07:10 EST 2004	1534
catsm_engyaustbatch_22884195.zip	Thu Jun 10 16:07:10 EST 2004	1539
catsm_engyaustbatch_22884203.zip	Thu Jun 10 16:07:10 EST 2004	912
catsm_engyaustbatch_22884209.zip	Thu Jun 10 16:07:11 EST 2004	912
catsm_engyaustbatch_22884218.zip	Thu Jun 10 16:07:11 EST 2004	913
catsm_engyaustbatch_22884227.zip	Thu Jun 10 16:07:11 EST 2004	1000

# Participant inbox archive

# Participant inbox archive overview

The participant inbox archive keeps a history of the .ZIP files submitted by a participant. The structure is similar to the "Participant Archive" folder.

 When a .ZIP file in the participant inbox is acknowledged (ack), or negatively acknowledged (nack), it is archived in the inbox archive folder.  For B2B files, when the first level acknowledgement (.ac1) takes place in the B2B inbox, the file is archived to the inbox archive folder.

# Assigning user access rights

 For Participant User access to the Participant Inbox Archive, participant administrators select the View Participant Inbox Archives entity in the Maintain Rights menu, and assign "Read" rights. For help assigning user access rights, see
Guide to User Rights
Management.

 For Participant User access to the B2B Inbox Archive, participant administrators select the B2B Directory Inbox Archive entity in the Maintain Rights menu, and assign "Read" rights.

# Participant inbox archive user rights access

Participant Administrators control access to Participant Inbox Archive using the View Participant Inbox Archives entity in the Administration menu in the MSATS Web Portal.

For Participant User access to the B2B Inbox Archive, Participant Administrators select the B2B Directory Inbox Archive.

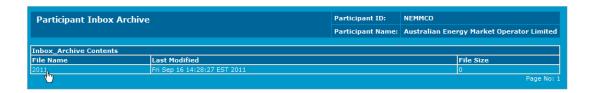
### Viewing the participant inbox archive

To view the participant inbox archive:

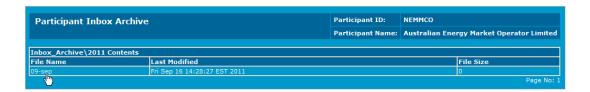
 On the main menu, click Data Load Import and then click Participant Inbox Archive.



The Participant Inbox Archive displays. To open the inbox archive contents, click the File Name link.



3. To view further details, continue to click the File Name until you find the required information.



# Dayzip download

# Dayzip download overview

Use the Dayzip Download to zip all files in the Participant Archive and save them to your local computer.

# Dayzip download user rights access

Participant Administrators control access to Dayzip Download using the Participant Dayzip Download entity in the Administration menu in the MSATS Web Portal.

# Viewing dayzip download

To view the participant dayzip download:

- On the main menu, click Data Load Import and then click Dayzip Download.
- Participant Inbox
  Participant Outbox
  Participant Outbox
  Participant Archive
  Participant Inbox Archive
  Dayzip Download
- The Participant Dayzip Download displays, click the Date Picker icon to view the MSATS Calendar.



3. On the MSATS Calendar, click the download date to select it.

Alternatively, you can type the date in the Dayzip Date field in dd-mmm-yyyy format, for example, 24-Aug-2009.

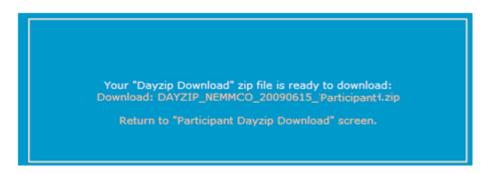


4. Click Download.



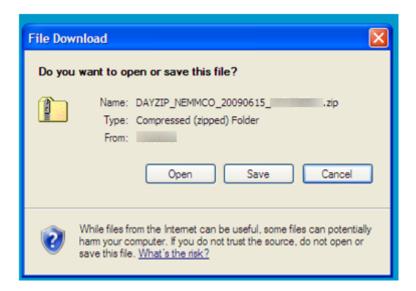
 A confirmation message displays. Click the Download: DAYZIP\_NEMMCO\_ <Date>\_XXXXXXX.zip.

Alternatively, click the Return to "Participant Dayzip Download" interface, to return to the Participant Dayzip Download interface.



6. The File Download window displays. Click either Open to open the file or Save to save the file to your local computer

Alternatively, click Cancel to return to the Participant Dayzip Download interface.



# **Metering Data**

Participants can retrieve Metering Data, in the same interval length, received from Meter Data Providers (MDPs).

About metering data	165
Data search	166
Interval metering data search	172
Interpreting retrieved results for interval meters	176
Interpreting interval time	187

# About metering data

The Metering Data component of MSATS is used for the receipt, storage, and aggregation of Metering (Datastream) Data required for:

- Profile Preparation Service (PPS) and Basic Meter Profiler (BMP) functionality within MSATS.
- External BMP functionality, where allowed by jurisdictional rules.
- Storage of profile shapes generated both internally and externally.
- Provision of aggregated and non-aggregated data to AEMO for Settlements purposes.

# Metering Data user rights access

Participant Administrators control access to Metering Data in the Administration menu in the MSATS Web Portal using the following entities:

Entity	Туре	interface
Metering Data	Interactive	MSATS Web Portal > Metering Data
MDM Meter Data	Batch	FTP to Participant File Server Inbox
B2B Directory Inbox	Interactive	MSATS Web Portal > B2B Browser > Upload File

#### Data search

In the data search you can:

- View different time resolutions: 5-, 15-, and 30-minutes of submitted Metering Data.
- View Interval time.
- View a substitution type column (where applicable).
- · View a row per interval per suffix.
- View Metering Data for any suffixes defined in the CNDS table, such as net data (Nx) streams, active (Ex, Bx) or reactive (Kx, Qx) suffixes.
- View an interval value and status per row.
- Query a maximum of seven days of Interval Metering Data and export the results to csv.
- View Metering Data regardless of the format (MDMF or MDFF) from the Initiating participant (see Interval meter data search results on page 168.

# Viewing meter data

- On the main menu, click Metering Data and then click Data Search.
- The Metering Data Search displays.
   Complete all fields marked with an asterisk
   (\*) and click Search. All fields are required.
   For help understanding the fields, see Data search on the previous page.

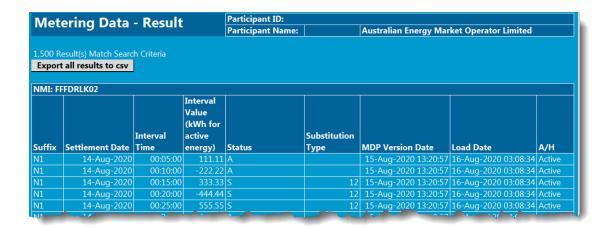




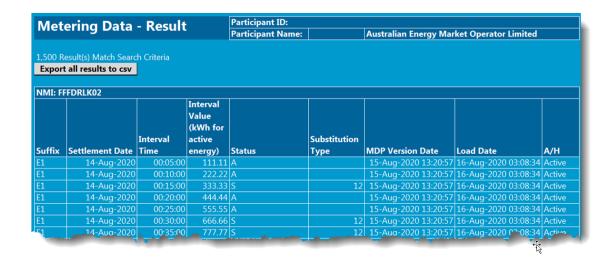
3. The Metering Data - Result displays. For help understanding the fields, see Data search on the previous page.

#### Interval meter data search results

Interval Metering Data results originating from MTRD or MDMT.

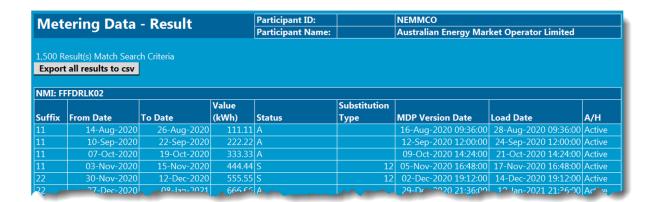


#### Interval Metering Data results originating from MTRD



# Accumulation (basic) meter data search results

Consumption Metering Data results originating from MTRD or MDMT.



# Metering data search fields explained

Field	Description
NMI	Enter the unique National Metering Identifier (NMI) for the connection point.
Datastream	Click 'active within the Date Range' to limit the search to Datastreams where the status code is currently A for any of the period between the selected dates.  Click 'active at some stage' to include Datastreams in the search that have been active during the Start and End Dates but which are no longer active (that is, Datastreams where the Datastream status code was once A but has since changed to I for some or all of the search period).
Datastream Type	Click Interval if the NMI's Datastreams are of type Interval (48 daily readings) or Consumption if the reading is a single value which represents total consumption since the last read.  The Datastream type is Interval if this NMI's Metering installation type is COMMSn, MRIM, UMCP, PROFILE, or SAMPLE. It is Consumption if the Metering installation type is BASIC.  Data for all suffixes matching the Datastream type selected are returned.
Meter Data	Click current readings if, in the case where there is more than one reading for a Datastream, only the most recently submitted one displays (for example, an estimated reading may have been replaced by an actual reading).  Click current and historical readings if there are prior readings superseded by more recent data.

Field	Description
Start Date	For Interval Datastream types, where each record is for a specific date, this is the first date data was received.
	For consumption reads, records are selected if either:
	(i) the date entered falls within the start and end date of the reading.
	(ii) the date entered is prior to the Start Date of the reading but the End Date entered is after the Start Date of the reading and prior to the End Date of the reading.
End Date	
End Date	For Interval Datastream types, where each record is for a specific date, this is the last date data was received.
End Date	•
End Date	the last date data was received.

# Metering data result fields

Field	Description
Suffix	The MDM Datastream suffix record, as defined for this NMI in the CATS Standing Data.
Settlement Date	The date for the period covered by this read.
MDP Version Date	The date and time stamp the MDP's system assigned to the record. It is the date and time the Metering Data was loaded into the MDP's system.
Load Date	The date and time the Metering Data was loaded into MSATS.
Values	The value of the read in KWh. Depending on the meter register type, this value may be an actual read or the difference between the last meter read time and the previous meter read time.

Field	Description
Status	The status of each reading; the codes and their meanings are:
	A: actual
	E: estimated
	S: substituted data
	F: substitutions that are considered final (that is, not to be replaced by actual data)
A/H	A - indicates this is the current record for this period
	H - indicates this is a history record (another more recent record has replaced it)

# Interval metering data search

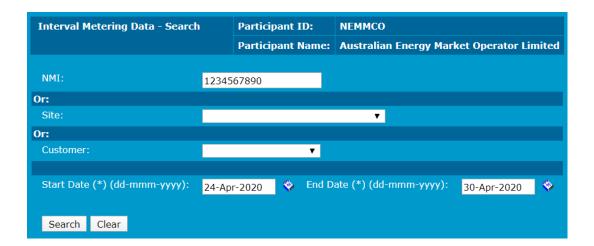
In the Interval Metering Data Search interface, you can:

- Query a maximum of seven days of interval Metering Data.
- Query a maximum of 12 months of consumption Metering Data.
- Display Metering Data in the resolution it was delivered (5-, 15-, 30-minute)
- Export the query results to csv.
- Restructure query results to support readability.
- View Metering Data for any suffixes defined in the CNDS table, such as net data (Nx) streams, active (Ex, Bx) or reactive (Kx, Qx) suffixes.
- View Metering Data sent to AEMO from the initiating participant in MDMF or MDFF format.

# Viewing interval meter data

- On the main menu, click Metering Data and then click Interval Data Search.
- The Interval Metering Data Search displays. Complete all fields marked with an asterisk (\*) and click Search. All fields are required. For help understanding the fields, see Interval Metering data search fields explained on page 175.



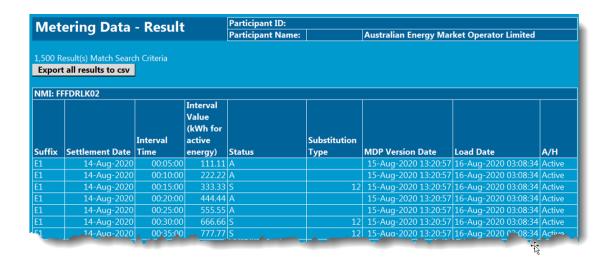


3. The Metering Data - Result displays. For help understanding the fields, see Interval metering data search on the previous page.

# Interval Metering data results from MTRD or MDMT

Australian Energy Mar	rket Operator Limited							
		L,500 Result(s) Match Search Criteria  Export all results to csv  VMI: FFFDRLK02						
MDP Version Date	Load Date	A/H						
15-Aug-2020 13:20:57	16-Aug-2020 03:08:34	Active						
15-Aug-2020 13:20:57	16-Aug-2020 03:08:34	Active						
15-Aug-2020 13:20:57	16-Aug-2020 03:08:34	Active						
15-Aug-2020 13:20:57	16-Aug-2020 03:08:34	Active						
2 15-Aug-2020 13:20:57	16-Aug-2020 03:08:34	Active						
2 2 2 2	MDP Version Date  15-Aug-2020 13:20:57  15-Aug-2020 13:20:57  2 15-Aug-2020 13:20:57  2 15-Aug-2020 13:20:57  2 15-Aug-2020 13:20:57							

# Interval Metering data results from MTRD



# Interval Metering data search fields explained

Field	Description
NMI	Enter the unique NMI for the connection point.
Site	Enter the physical location of the connection point
Customer	Select the end user
Start Date	The first date data was received
End Date	The last date for data was received

# Interval Metering data result fields explained

Field	Description
Suffix	The MDM Datastream suffix record, as defined for this NMI in the CATS Standing Data.
Settlement Date	The date for the period covered by this read.
Interval Time	The 5-minute interval reading
Interval Value	The value of the read in KWh. Depending on the meter register type, this value may be an actual read or the difference between the last meter read time and the previous meter read time.

Field	Description
Status	The status of each reading; the codes and their meanings are:
	A: actual
	E: estimated
	S: substituted data
	F: substitutions that are considered final (that is, not to be replaced by actual data)
Substitution Type	The substitution type dervived from the NEM12 or NEM13 method flag.
	The substitution type dervived from the NEM12 or NEM13 method flag.  The date and time stamp the MDP's system assigned to the record. It is the date and time the Metering Data was loaded into the MDP's system.
Type  MDP Version	The date and time stamp the MDP's system assigned to the record. It is the date
Type  MDP Version  Date	The date and time stamp the MDP's system assigned to the record. It is the date and time the Metering Data was loaded into the MDP's system.

# Interpreting retrieved results for interval meters

Metering Data is retrieved based on the Datastream suffixes defined in the CNDS table, for example, net (Nx) or register level suffixes (Ex, Bx, Kx, Qx, and so on).

The following scenarios define which Interval Metering Data is retrieved based on:

- If the MDM stored Metering Data was received as an MDMT or MTRD Transaction.
- 2. If the Datastream defined in the CNDS table is a net or register level.

# MDM stored Metering data received as an MDMT transaction

The Datastream defined in the CNDS table is a net.

Standing data	Stored read	d			
CNDS suffix	CSV format	NMISuffix	MDMDataStreamIdentifi er	NMIConfiguration	MDP version date
N1	MDMF	N1	n/a	n/a	15-Aug- 2020 13:20:57

As a read exists in the MDM database with a NMI Suffix equal to the CNDS Suffix, this read is retrieved.

Suffix	Settlement date	Interval time	Interval value (kWh for active energy)	Status	MDP version date	Load date	A/H
N1	14-Aug- 2020	00:30:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active

# MDM stored Metering data received as an MTRD transaction

The Transaction contained a single E1 Metering read. The Datastream defined the CNDS table is a register level with both the E1 defined.

Standing data	Stored rea	d			
CNDS suffix	CSV format	NMISuffix	MDMDataStreamIdentifi er	NMIConfiguration	MDP Version Date
E1	MDFF	E1	N1	E1	15-Aug- 2020 13:20:57

As an E1 read exists in the MDM database with a NMI Suffix equal to the CNDS Suffix, this read is retrieved.

Suffix	Settlement date	Interval time	Interval value (kWh for active energy)	Status	MDP version date	Load date	A/H
E1	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active

# MDM stored Metering data received as an MTRD transaction

The Transaction contains reads for E1, B1, E2 and a B2. With the exception of the B2 these registers are defined in the NEM12 file's NMIConfiguration string 'B1E1E2'. The Datastreams defined in the CNDS table are a net level N1 and N2.

Standing data	Stored rea	nd			
CNDS suffix	CSV format	NMISuffix	MDMDataStreamIdentifi er	NMIConfiguratio n	MDP version date
N1	MDFF	E1	N1	B1E1E2	15-Aug- 2020 13:20:57
N1	MDFF	B1	N1	B1E1E2	15-Aug- 2020 13:20:57
N2	MDFF	E2	N2	B1E1E2	15-Aug- 2020 13:20:57
N2	MDFF	B2	N2	B1E1E2	15-Aug- 2020 13:20:57

As a read exists in the MDM database with a MDMDataStreamIdentifier equal to the CNDS Suffix, the reads listed in NMIConfiguration are retrieved. As the NMIConfiguration of N2 contains only E2, the B2 read is not retrieved.

Suffix	Settlement date	Interval time	Interval value (kWh for active energy)	Status	MDP version date	Load date	A/H
В1	14-Aug- 2020	00:05:00	-222.22	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
E1	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
E2	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active

# MDM stored Metering data received as an MTRD transaction

The Datastream defined in the CNDS table is a net with Reactive Energy (Kx and Qx) also defined.

Standing data	Stored rea	d			
CNDS suffix	CSV format	NMISuffix	MDMDataStreamIdentifi er	NMIConfiguratio n	MDP version date

E1	MDFF	E1	N1	E1K1Q1	15-Aug- 2020 13:20:57
K1	MDFF	K1	N1	E1K1Q1	15-Aug- 2020 13:20:57
Q1	MDFF	Q1	N1	E1K1Q1	15-Aug- 2020 13:20:57

As an Active Energy read exists in the MDM database with a NMI Suffix equal to the CNDS Suffix and a Reactive Energy read exists in the MDM database with a NMI Suffix equal to the CNDS Suffix, these reads are retrieved.

Suffix	Settlement date	Interval time	Interval value (kWh for active energy)	Status	MDP version date	Load date	A/H
E1	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
K1	14-Aug- 2020	00:05:00	-222.22	A	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
Q2	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active

# MDM stored Metering data received as an MTRD transaction

The Datastream defined the CNDS table is a net with Reactive Energy (Kx and Qx) also defined.

Standing data	Stored rea	d			
CNDS suffix	CSV format	NMISuffix	MDMDataStreamIdentif ier	NMIConfiguratio n	MDP version date
N1	MDFF	E1	N1	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N1	MDFF	B1	N1	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N1	MDFF	K1	N1	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N1	MDFF	Q1	N1	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N2	MDFF	E2	N2	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N2	MDFF	B2	N2	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57

As a read exists in the MDM database with an MDMDataStreamIdentifier equal to the CNDS Suffix, the reads listed in the NMIConfiguration are retrieved. As Reactive Energy reads exists in the MDM database with a NMI Suffix equal to the CNDS Suffix, these reads are retrieved.

Suffix	Settlement date	Interval time	Interval value (kWh for active energy)	Status	MDP version date	Load date	A/H
В1	14-Aug- 2020	00:05:00	-222.22	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
B2	14-Aug- 2020	00:05:00	-222.22	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
E1	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
E2	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
K1	14-Aug- 2020	00:05:00	-222.22	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
Q2	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active

# MDM stored Metering data received as an MTRD transaction

The Datastream defined the CNDS table was a net but is now defined at a register level for the E1, B1, K1 and Q1 Datastreams only. The N2 Datastream is set to inactive with no defined replacement register level (E2, B2) CNDS.

Standing data	Stored rea	d			
CNDS suffix	CSV format	NMISuffix	MDMDataStreamIdentif ier	NMIConfiguratio n	MDP version date
N1 (inactive) E1 (active)	MDFF	E1	N1	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N1 (inactive) B1 (active)	MDFF	B1	N1	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N2 (inactive)	MDFF	E2	N2	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N2 (inactive)	MDFF	B2	N2	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N1 (inactive) K1 (active)	MDFF	K1	N1	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57
N1 (inactive) Q1 (active)	MDFF	Q1	N1	E1B1K1Q1E2B 2	15-Aug- 2020 13:20:57

#### Retrieve all reads Active within the date range.

Suffix	Settlement date	Interval time	Interval value (kWh for active energy)	Status	MDP version date	Load date	A/H
В1	14-Aug- 2020	00:05:00	-222.22	А	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
E1	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
K1	14-Aug- 2020	00:05:00	-222.22	А	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
N2	14-Aug- 2020	00:05:00	111.11	I	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
Q1	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active

### Retrieve all reads Active at some stage.

Suffix	Settlement date	Interval time	Interval value (kWh for active energy)	Status	MDP version date	Load date	A/H
В1	14-Aug- 2020	00:05:00	-222.22	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
E1	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active

Suffix	Settlement date	Interval time	Interval value (kWh for active energy)	Status	MDP version date	Load date	A/H
K1	14-Aug- 2020	00:05:00	-222.22	А	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active
Q1	14-Aug- 2020	00:05:00	111.11	Α	15-Aug- 2020 13:20:57	16-Aug- 2020 03:08:34	Active

# Interpreting interval time

For a 5-minute Interval meter, for each Settlement date there are 288 readings. The first interval starts at midnight 00:00:00 and ends at 00:05:00 (see .5-minute interval time on the next page ).

For a 30-minute Interval meter, for each Settlement date there are 48 readings. The first interval starts at midnight 00:00:00 and ends at 00:30:00 (see 30-minute interval time on page 190).

The same principle applies for a 15-minute Interval meter, for each Settlement date there will be 96 readings, with the first interval starting at midnight 00:00:00 and ending at 00:15:00.

The NMI for these examples is: FFFDRLK02.

Table 15 5-minute interval time

suffix	SettlementDate	intervalTime	intervalValue	status	substitutionType	MDPVersionDate	IoadDate	recStatus
N1	2019-10-03	00:05:00	222.22	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:10:00	333.33	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:15:00	444.44	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:20:00	555.55	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:25:00	666.66	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:30:00	777.77	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active

suffix	SettlementDate	intervalTime	intervalValue	status	substitutionType	MDPVersionDate	loadDate	recStatus
N1	2019-10-03	00:35:00	888.88	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:40:00	999.99	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:45:00	111.11	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:50:00	222.22	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	00:55:00	333.33	А		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	01:00:00	444.44	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active

Table 16 30-minute interval time

suffix	SettlementDate	intervalTime	intervalValue	status	substitutionType	MDPVersionDate	loadDate	recStatus
N1	2019-10-03	00:30:00	111.11	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	01:00:00	222.22	А		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	01:30:00	333.33	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	02:00:00	444.44	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	02:30:00	555.55	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	03:00:00	666.66	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active

suffix	SettlementDate	intervalTime	intervalValue	status	substitutionType	MDPVersionDate	loadDate	recStatus
N1	2019-10-03	03:30:00	777.77	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	04:00:00	888.88	А		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	04:30:00	999.99	А		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active
N1	2019-10-03	05:00:00	111.11	Α		2019-10-03 13:20:57	2020-01-30 09:58:42.046	Active

# **Settlement Data**

About settlement data	192
Settlement scenarios	192

## About settlement data

In the Settlement Data menu, authorised Participant Users can view the Settlement runs for each statement type.

Only authorised
Participant Users can
view Settlement data.

# Settlement scenarios

### About settlement scenarios

EMDM processes four basic types of Settlement Scenarios, these are:

- 1. Preliminary (trading week + 5 business days).
- 2. Final (trading week plus 18 business days).
- 3. Revision 1 (trading week + approximately 20 weeks).

- 4. Revision 2 (trading week + approximately 30 weeks).
- 5. Special revised.

### **Special Settlement scenarios**

If AEMO determines a special revised Settlement statement is required, a Special Settlement Scenarios is run (for example, as per clause 3.15.19 of the NER).

### Settlement type parameters

A scenario defines the basic parameters for that Settlements type such as the length of time either side of the Settlement period to freeze the profile. The input parameters of a scenario include:

- 1. Scenario Name
- 2. Scenario Type (as above)
- 3. Profile freeze cut-off period, defining the period when the system freezes the Net System Load Profile (NSLP), currently 15 weeks.

# Settlement scenarios user rights access

Participant Administrators control access to Settlement Scenarios using the Settlement Scenarios entity in the Administration menu in the MSATS Web Portal.

## Viewing settlement scenarios

#### To view Settlement Scenarios:

- On the main menu, click Settlement Data and then click Settlement Scenarios.
- The Settlement Data Scenarios display. For help understanding the fields, see Settlement scenario fields on page 196.



- Click a column headings to sort by ascending or descending order.
- 4. In the Action column, do one of the following:
  - Click View to see further Settlement data scenario details.
  - Click Cases to see uncommitted data case information (this action becomes active when cases have been run against a scenario). To learn more, see Settlement scenarios on page 192.

Figure 19 Settlement scenarios

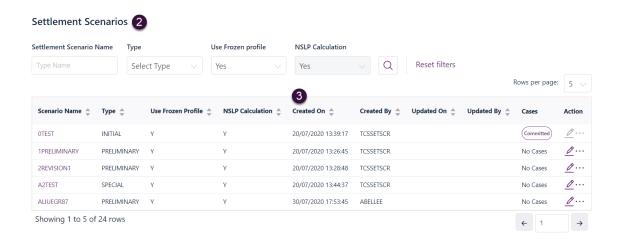
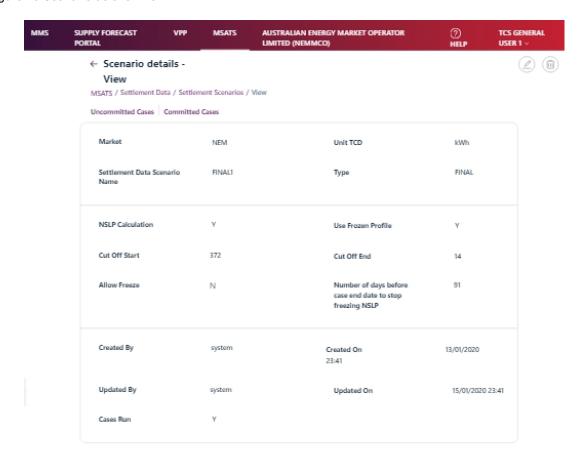


Figure 20 Scenario details - view



Click Settlement Scenarios to return to the Settlement Data Scenarios - List.

### Settlement scenario search

To search for a particular scenario:

- 1. Follow the steps for Viewing settlement scenarios on the previous page.
- 2. In the Settlement Scenarios interface, enter any or none of the following fields and click the search icon:
  - a. Scenario Name
  - b. Type: Settlement type (see About settlement scenarios on page 192)
  - c. Use Frozen Profile (default = yes)
  - d. NSLP Calculation (default = yes).

Table 17 Settlement scenario fields

Column name	Description
Scenario Name	A unique identifier for the Settlement scenario
Туре	The type of scenario e.g. preliminary, final, revision 1, revision 2
Use frozen NSLP profile	If this value is Y, then the NSLP is not calculated for the period where the profile has been locked. If this is N, the NSLP is always calculated.
NSLP Calculation	Whether the NSLP is calculated in this Settlement data scenario.  Y = calculated, N = not calculated.
Updated on	The last date the Settlement data scenario record was modified.
Updated by	The Participant User ID of the operator who last modified the Settlement data scenario record.
Start freezing NSLP days	Number of days before the case end data to start freezing the profile ( may be a negative number)
Stop freezing NSLP days.	Number of days before the case end data to stop freezing the profile ( may be a negative number)

# Reports and Alerts

About reports and alerts	197
Viewing and requesting CATS reports	199
MDM reports	201
Queue monitoring	207

# About reports and alerts

The Reports menu provides access for both CATS (Consumer Administration and Transfer Solution) and MDM (Metering Data Management) reports. The report information available depends on your MSATS Role, your access rights, and the jurisdiction where the relating NMI resides.

Reports are in XML format, delivered in a .ZIP file and retrieved from the Participant Outbox; they are not displayed directly on the interface. Reports must be acknowledged as soon as possible to ensure they are removed from the participant outbox (Data Load Import on page 143).

Almost immediately after a file is acknowledged, MSATS moves it from the Participant Outbox to an archive folder where it remains for some time. If you accidentally acknowledge a report before saving it, you can try retrieving it from the archive folder, Data Load Import on page 143.

For details about the aseXML report format, see Guidelines for Development of A Standard for Energy Transactions in XML (aseXML).

## **Batch reports**

Batch reports are requested using FTP to the Participant File Server and use the following entities for Participant User access:

- All CATS Batch reports: CATS Reports Batch.
- All MDM Batch reports: MDM Reports Batch.
- Individual Batch reports: See the user rights entity in each individual report.

For help assigning user access rights, see
Guide to User Rights
Management.

## Interactive reports

Interactive reports are reports requested from the MSATS or API portals and use the following entities for Participant User access:

- All CATS Interactive reports: CATS Reports.
- All MDM Interactive reports: MDM Reports.
- Individual Interactive reports: See the user rights entity in each individual report.

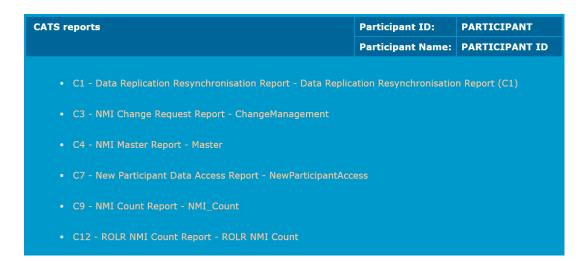
# Viewing and requesting CATS reports

#### To view CATS reports:

- On the main menu, click Reports and then click CATS.
- The CATS reports display, for an explanation of the report types, see Guide to MSATS Reports.

Note: the reports displayed below are an example only; depending on your assigned Role, you may not see all the reports listed below. If you require access to a report and it is not in your list, see your participant administrator.





- 3. To request a report, click the report name. Each report requires you to enter different parameters for the information you require. The example below displays the C9 NMI Count Report parameters.
- 4. Enter your parameters and click Save.



- 5. Confirmation of your request displays with your request ID. The report is produced as an aseXML compliant .XML file and delivered to your participant outbox in a .ZIP file.
- 6. Retrieve the report from your Participant Outbox (Viewing the Participant Outbox on page 149).

The request ID provided does not match the .ZIP file in your participant outbox because the report was requested using the MSATS web portal. The request ID matches a value inside the report. To determine the correct report, see the date and time stamp.

Report has been submitted. Request ID is 5924708

# MDM reports

## **Viewing MDM reports**

#### To view the MDM reports:

- On the main menu, click Reports and then click MDM.
- 2. The MDM Reports display, for an explanation of the report types, see Table 1.

The reports listed in MDM report types on the next page are an example only. You may see different reports depending on your assigned Role or access rights. If you require access to a report and it is not in your list, see your participant administrator.

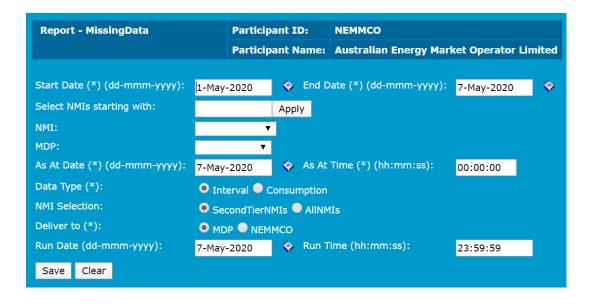


#### Figure 21 MDM report types

MDM reports	Participant ID:	NEMMCO
	Participant Name:	Australian Energy Market Operator Limited

- · RM9 Actual vs Estimate Report ActualysEstimate
- · RM11 MDM Missing Data (null) Report MissingData
- · RM13 NMI Datastreams History Report NMIDataStreamsHistory
- RM16 L1 Settlement Reconciliation Report Level1SettlementReconciliation
- RM17 L3 Settlement Reconciliation Report Level3SettlementReconciliation
- RM20 Profile Shape Data Report PPS
- RM21 L2 Settlement Reconciliation Report Level2SettlementReconciliation
- RM22 Data Estimation Report DataEstimation
- RM26 MDP Substitution and Estimation Report SubstitutionEstimation
- · RM28 MDP Settlement Performance Snapshot Report
- · RM29 Participant Standing Data Report
- · RM30 Performance Monitoring Reports
- · RM31 NSLP Checker NSLPChecker
- RM32 Interval Metering Data Report Interval Metering Data
- RM33 Interval Data Aggregation Interval Data Aggregation
- RM36 Demand Response
- RM37 High Priority Missing Data Report HighPriorityMissingData
- · RM38 DataStream Missing Data Report DataStreamMissingData
- · RM39 Mismatch Data Report Mismatch Data
- RM41 Settlement Comparison Report SettlementComparison
- · RM45 Settlement Trend Report SettlementTrend

- To request a report, click the report name. Each report requires you to enter different parameters for the information you require. The example below displays the RM8 - Date BMP PPS Generated Report.
- 4. Enter your parameters and click Save.



- 5. Confirmation of your request displays with your request ID. The report is produced as an aseXML compliant .XML file and delivered to your participant outbox in a .ZIP file.
- 6. Retrieve the report from your outbox (see Data Load Import on page 143).

The request ID provided does not match the .ZIP file in your Participant Outbox because the report was requested using the MSATS web portal. The request ID matches a value inside the report. To determine the correct report, see the date and time stamp.

Report has been submitted. Request ID is 5924709

# Requesting an MDMT report

To request an MDMT report, the participant's system must generate a request that conforms to the applicable aseXML Schema.

Participants zip the aseXML document and upload it into MDM using the MSATS Browser interface. Place the file into your Participant Inbox on the Participant File Server or send it as an aseXML Payload using AEMO's Market facing e-Hub APIs.

Participants request reports using the following methods:

- An MDMT Report Request transaction from the MSATS Web Portal > Reports and Alerts > MDM menu. For help, see Guide to MSATS Web Portal. The report request is for either:
  - a. Immediate compilation and delivery.
  - b. Scheduled to run as a one-off with an option to specify a run date and time.
- 2. Using FTP to the Participant File Server. Participants place the MDMT report message directly into their Participant Directory Inbox. The report request is for immediate compilation and delivery.
- Using an API to AEMO's e-Hub. Participants place the MDMT report messages using the B2M e-Hub Asynchronous Push-Push or Push-Pull APIs. For help, see Guide to B2M Retail APIs. The report request is for immediate compilation and delivery.

The aseXML document has the following three sections.

#### 1 Schema information

Details the aseXML schema version information and cannot be modified unless AEMO releases an update.

See Example RM11
Missing Data report on page 206

#### 2 Header information

Contains information about the participant submitting the file, its destination, and the MDM reporting transaction group, MDMT.

An aseXML file with the Transaction Group of MDMT:

- Supports transactions of the type Meter Data Notification, Meter Data Response, Report Request, Report Response.
- Supports MDMT Report Request transactions for multiple RM report types.
- Cannot have both MDMT Meter Data Notifications and Report Request transactions.
- Cannot have transactions belonging to other Transaction Groups (for example, CATS reports types).

The format is important when creating your aseXML file. If a field entry is entered incorrectly, for example, not capitals when it should be, MDM may reject the file.

#### 3 Transaction information

Contains transaction-specific information such as, the report type and report parameters.

Below is an example of an aseXML file for an RM11 Missing Data report. The Payload shows the structure of a transaction containing report parameters. This example uses schema version r31.

Figure 22 Example RM11 Missing Data report

```
<?xml ·version="1.0" · ?>
<ase:aseXML xmlns:ase="urn:aseXML:r31" xmlns:xsi="</pre>
http://www.w3.org/2001/XMLSchema-instance".xsi:schemaLocation="urn:aseXML:r31
http://www.nemmco.com.au/aseXML/schemas/r31/aseXML_r31.xsd">
 << Header>
  · · <From>PART1234</From>
 · · ·<To ·description="Australian -Energy ·Market ·Operator ·Limited">NEMMCO</To>
 ...<MessageID>NEMMCO-MSG-608170170</MessageID>
....<MessageDate>2017-03-01T13:33:56+10:00</MessageDate>
 ···<TransactionGroup>MDMT</TransactionGroup>
 · · · < Priority>Medium < / Priority>
 ···<SecurityContext>PART1234</SecurityContext>
 --- <Market>NEM</Market>
 .</Header>
· · <Transactions>
   -<Transaction transactionID="MDMT-608170170" transactionDate=</pre>
   "2017-03-01T13:33:56+10:00" initiatingTransactionID="22816831">
   · · · < ReportRequest · version="r10">
   · · · · < ReportParameters · xsi:type="ase:MDMTMissingDataReportParameters">
 ....<ReportName>MissingData</ReportName>
 ....FromDate>2010-10-26
 ....<ToDate>2010-11-01</fo>

  ..... <AsAtDate>2017-03-01T00:00:00+10:00</AsAtDate>
  ...... <NMISelection>AllMMIs</NMISelection>
  ····</ReportParameters>
 · · · </ReportRequest>
  · · </Transaction>
 .</Transactions>
</ase:aseXML>
```

## **Batch reports**

Batch reports are requested using FTP to the Participant File Server and use the following entities for Participant User access:

- All CATS Batch reports: CATS Reports Batch.
- All MDM Batch reports: MDM Reports Batch.
- Individual Batch reports: See the user rights entity in each individual report.

For help assigning user access rights, see
Guide to User Rights
Management.

## Interactive reports

Interactive reports are reports requested from the MSATS or API portals and use the following entities for Participant User access:

- All CATS Interactive reports: CATS Reports.
- All MDM Interactive reports: MDM Reports.
- Individual Interactive reports: See the user rights entity in each individual report.

# **Queue monitoring**

Using the Queue Monitoring menu participants can manage their message flow control for messages submitted by B2M APIs or to their Participant ID or group B2M Inbox in the Participant File Server.

#### You can:

- View your limits for the accumulation of change request response and notification messages.
- Monitor how many transactions are currently queued.
- View a count of pending CATS and MDM reports.
- View the upper and lower allocated report limit.

## Stop files

The purpose is to provide sufficient information to allow participants to manage the submission and receipt of MSATS files so the application of stop files is avoided.

A stop file is created when the number of files within a queue exceeds the Upper or Lower Limit. Once imposed no more processing on inbound transactions can occur until the number of files falls below the Lower Limit. Where a participant belongs to a group, the limits apply to the group not to the individual.

### Increasing the upper limit

To increase the allowed Upper Limit for queues, in the relevant queue interface, click Increase to increase the Upper Limit to the maximum allowed. Calculated by multiplying the Lower Limit by the maximum increase factor.

## Queue monitoring user rights access

Participant Administrators control access to Queue Monitoring using the Participant Queue Monitoring entity in the Administration menu in the MSATS Web Portal.

# Viewing queue monitoring

To view queue monitoring:

- On the main menu, click Reports and then click Queue Monitoring.
- 2. The Queue Monitoring interface displays with the following queues:
  - a. Outbound Message Queue
     The daily count of unacknowledged
     Participant Hub Queue and Participant File
     Folder Outbox messages.
  - b. Next Scheduled Read Date Change Request Queue The daily count of CATS Change Requests with the Change Reason Code 5071.
  - Report Scheduler Queue
     The daily count of unprocessed reports.
  - d. Outbound Notifications Queue
     The daily estimate of CATS Change Request Notifications.
  - e. Change Request Queue
     The daily estimate of CATS Change Requests.



Queue Monitoring	Participant ID:	NEMMCO
	Participant Name:	Australian Ener
Outbound Message Queue		
Next Scheduled Read Date Change Request Queue		
Report Scheduler Queue		
Outbound Notifications Queue		
Change Request Queue		
And the second s		

### Outbound message queue

View the current daily count of unacknowledged Participant Hub Queue and Participant File Share Outbox messages and see if you have any Outbound Stop Files.

The interface changes to inform participants if they have exceeded the queue limit and are stopped. If the batch handler is stopped, the reason and the resolution display.

- 1. View the Current, Lower and Upper Limit for outbound messages.
- 2. View the daily count of unacknowledged Participant Hub Queue and Participant File Folder Outbox messages.
- 3. Check for Outbound Stop Files. If you have exceeded the queue limit and are stopped, the interface changes to inform you.

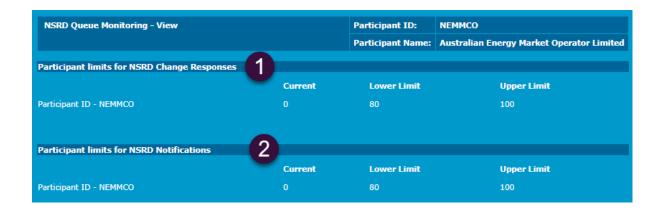
  If the Batch Handler is stopped, the reason and the resolution display.



### Next scheduled read date change request queue

View the daily count of CATS Change Requests with the Change Reason Code 5071 and check for NSRD Notification Stop Files.

- View the Current, Lower and Upper Limit for Next Scheduled Read Date Change Requests.
- View the Lower and Upper Limit for Next Scheduled Read Date Notifications.



### Report scheduler queue

- 1. View the Current, Lower and Upper Limit for reports.
- 2. View the daily count of unprocessed reports and check for Stop Files.



### Outbound notifications queue

- 1. View the daily estimate of CATS Change Request Notifications.
- 2. Check if you have any Change Request Notification Stop Files.



## Change request queue

View the daily estimate of CATS Change Requests and check for Change Request Stop Files exist against your Participant ID.

- 1. Current: The number of submitted requests.
- 2. Lower Limit: The Upper Limit at the start of the day.
- 3. Upper Limit: The Upper Limit may increase near the end of the day due to CR limits relaxing (This also applies to the Outbound Notifications Queue).



# Administration

About administration	213
Codes maintenance	213
Rules maintenance	223
System calendar	225

## **About administration**

The Administration menu allows participant administrators (PAs) to manage their Participant User's access to AEMO's web portals and ordinary Participant Users to view the codes and rules in the MSATS system. For more detailed assistance, see Guide to User Rights Management.

The submenus described in this section are for Participant Users with ordinary access rights. Depending on your access rights, you may see other Administration submenus.

# **Codes maintenance**

This menu item contains read-only tables of all the codes used in MSATS.

For help understanding the codes, see the MSATS Procedures.

## Codes maintenance user rights access

Except for NMI Ranges (see NMI ranges on page 220), Participant Administrators control access to Codes Maintenance using the Codes Maintenance entity in the Administration menu in the MSATS Web Portal.

## Viewing codes maintenance

- On the main menu, click Administration and then click Codes Maintenance.
- The Main Codes Maintenance interface displays. Click a code group from the list to view the details. For help, see Codes maintenance lists on page 216.

Administration

Codes Maintenance
Rules Maintenance
System Calendar

Main Codes Maintenance	Participant ID:	NEMMCO
	Participant Name:	Australian Energy Market Operator Limited
Change Reason Cod	les	Metering Installation Type Codes
De-registration Codes		NMI Classification Codes
DLF Codes		NMI Ranges
Embedded Network Identifier Codes		NMI Status Codes
Error Codes		Objection Codes
Jurisdiction Codes		Role ID Codes
Network Tariff Codes		TNI Codes

3. The list displays. In each Codes Maintenance List you can:

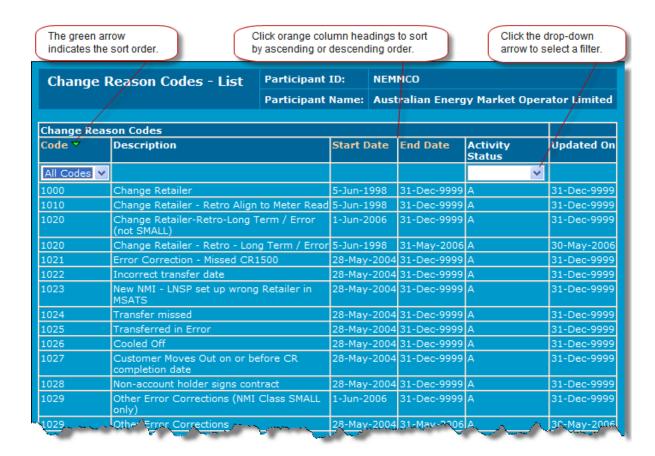
For help understanding the fields, see Standing Data for MSATS.

- Sort by ascending or descending order.
   Click the orange column headings. For example in Change reason codes on the next page, Code, Start Date or End Date are sortable columns. The green arrow indicates the sort order
- Filter the rows.
   Click the drop-down arrows and select a filter parameter. For example in Change reason codes on the next page, Code and Activity Status are filterable columns.
- See further information.
   In the Action column, click Show All.

## **Codes maintenance lists**

## Change reason codes

A list of change reasons that govern the population of data in a Change Request.



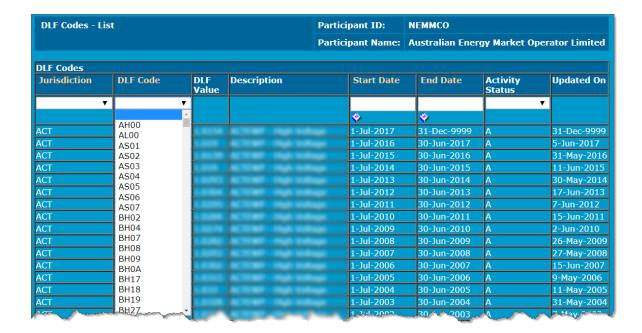
## **Deregistration codes**

The code denoting a participant is deregistered.



#### **DLF** codes

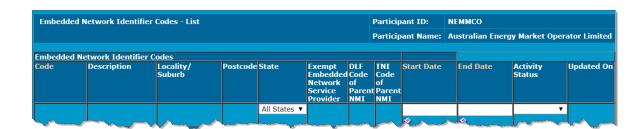
Provides a list of Distribution Loss Factor (DLF) codes and their relevant values. All NMIs are assigned a DLF Code.



#### Embedded network identifier codes

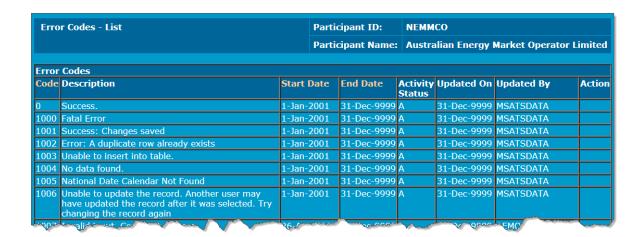
This table contains the embedded network identifier codes used to identify the embedded network a NMI belongs to, either as a Parent NMI or a Child NMI.

If on a NMI record this field is not populated, it is assumed the NMI is not the Child NMI of any other Parent NMI.



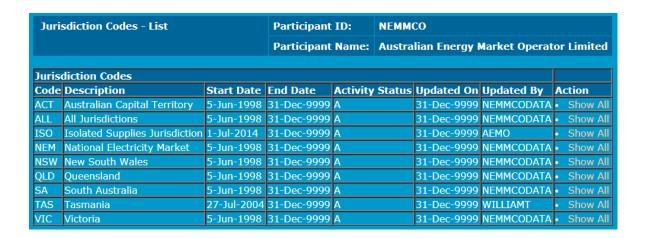
#### **Error codes**

The list of error codes used in MSATS and B2B.



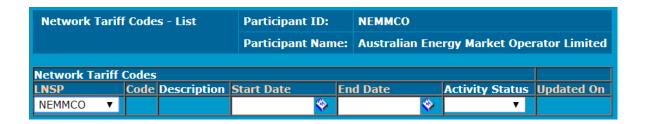
#### Jurisdiction codes

The Jurisdiction codes identifying the Jurisdiction where a NMI is situated.



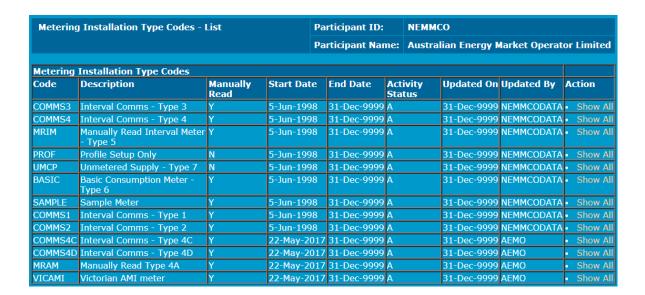
#### **Network tariff codes**

Network Tariff Codes supplied and published by the LNSP.



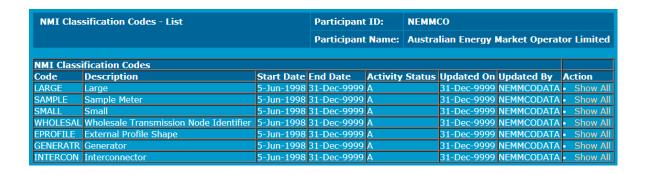
## Metering installation type codes

Identifies the type of Metering installation as specified in the NER.



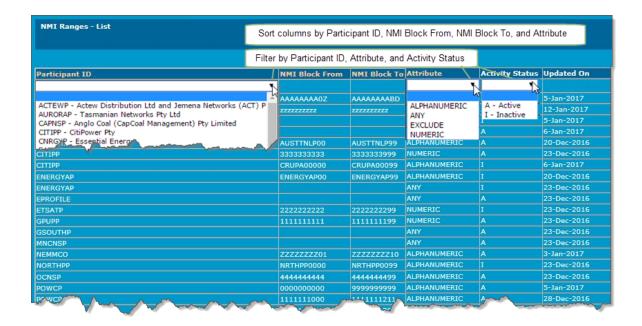
#### NMI classification codes

Informs MSATS of the flow of electricity at the connection point where the NMI information applies.



## **NMI** ranges

Displays a read-only list of all NMI Ranges including those with inactive status. Participant Administrators control access to NMI Ranges using the NMI Ranges entity in the Administration menu in the MSATS Web Portal.



#### The default order for the NMI Ranges list is:

Order	Column	Description
1	Participant ID	The ENM/LNSP Participant ID.
2	NMI Block From	The start of the NMI range assigned to a Participant ID.
3	NMI Block To	The end of the NMI range assigned to a Participant ID.
4	Attribute	Defines the format of the NMI block and if the NMI Range CR validation applies.
5	Activity Status	Active or inactive.
6	Updated On	The date the record was created or changed.

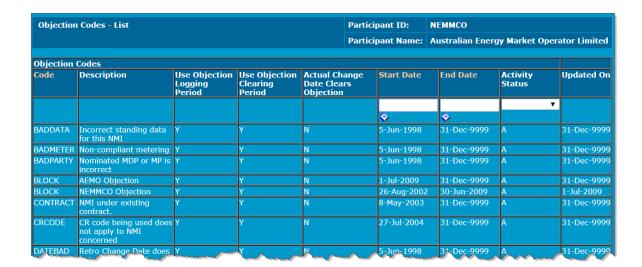
## **NMI Status Codes**

Used to determine if a NMI can be used for a retail transfer. The NMI Status Code X is the only status not allowing NMI transfers between Retailers.

NMI	Status Codes - List		Participan	t ID:	NEMM	ICO		
			Participan	t Name:	Austra	alian Energy	Market Operat	or Limited
NMI:	Status Codes							
Code	Description	Start Date	End Date	Activity	Status	<b>Updated On</b>	Updated By	Action
Α	Active NMI	5-Jun-1998	31-Dec-9999	A		31-Dec-9999	NEMMCODATA	<ul> <li>Show All</li> </ul>
D	Not Energised	5-Jun-1998	31-Dec-9999	Α		31-Dec-9999	NEMMCODATA	<ul> <li>Show All</li> </ul>
G	Greenfield Site NMI	8-May-2003	31-Dec-9999	A		31-Dec-9999	SANJAYP	<ul> <li>Show All</li> </ul>
N	Non Market Child NMI	22-May-2017	31-Dec-9999	Α		31-Dec-9999	AEMO	<ul><li>Show All</li></ul>
X	Extinct NMI	5-Jun-1998	31-Dec-9999	Α		31-Dec-9999	NEMMCODATA	<ul> <li>Show All</li> </ul>

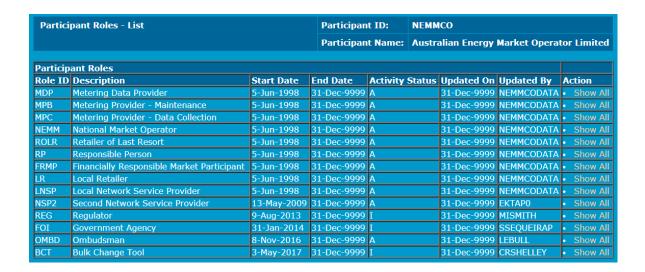
#### **Objection Codes**

Participants use. Objection Codes to object to a Change Request. They are applied to each Jurisdiction and each Change Reason Code in accordance with the Objection Rules.



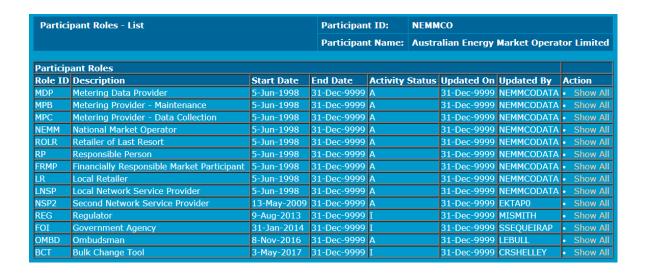
#### **Role ID Codes**

The list of participant Role IDs used in MSATS.



#### **TNI Codes**

A list of Transmission Network Connection Point identifier codes.



## Rules maintenance

## Rules Maintenance user rights access

Participant Administrators control access to Rules Maintenance using the Rules Maintenance entity in the Administration menu in the MSATS Web Portal.

## Viewing rules maintenance

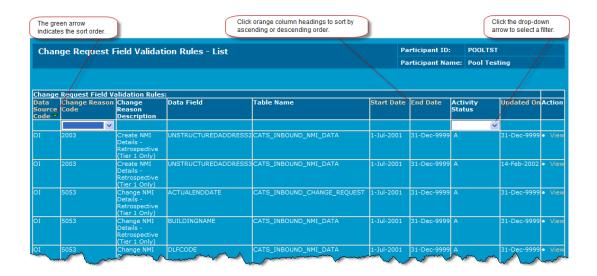
 On the main menu, click Administration and then click Rules Maintenance.

# ▼ Administration Codes Maintenance Rules Maintenance System Calendar

2. The Main Rules Maintenance interface displays. Click a rule group from the list to view the details, for example Change Request Field Validation Rules.



- 3. The Change Request Field Validation Rules List displays, in each Rules Maintenance List you can:
  - Sort by ascending or descending order.
- Click the orange column headings. In the example click Data SourceCode,
   Change Reason Code, or Start Date. The green arrow indicates the sort order.
  - Filter the information.
- Click the drop-down arrows and select a filter parameter. In the example filter by Change Reason Code.
  - View further details
- Click View in the Action column. Selections in the Action column change according to the selected rules list.



# System calendar

# System calendar user rights access

Participant Administrators control access to System Calendar using the **System**Calendar entity in the Administration menu in the MSATS Web Portal.

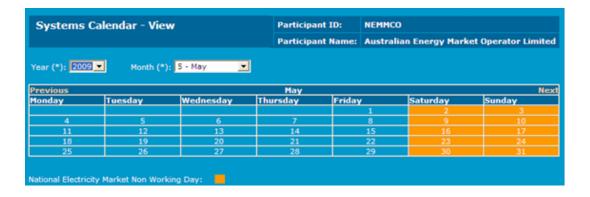
## Viewing the system calendar

The system calendar is a read-only view of the working and non-working days in the NEM calendar.

- 1. On the main menu, click Administration and then click System Calendar.
- 2. The Systems Calendar View interface displays with the following options available:
  - The Year field defaults to the current year, to change the year, click the drop-down arrow and select from the list.
  - The Month field defaults to the current month, to change the month, click the drop-down arrow and select from the list.
  - On either side of the table, there are options to move a month forward by clicking the Next link or back by clicking on the Previous link.
  - Non-working days are shown in orange.

#### \* Administration

Codes Maintenance Rules Maintenance System Calendar



# **User Profile**

About user profile	227
Change password	227
Password format	229
Edit user profile	229
View user profile	230

# About user profile

From the User Profile menu, Participant Users can:

- · Change their password
- · Edit and view their user profile.

# Change password

Participant Users use the Change Password function to change their password for all AEMO's energy market systems.

Changing your password in MSATS or EMMS, changes it for both.

## Change password user rights access

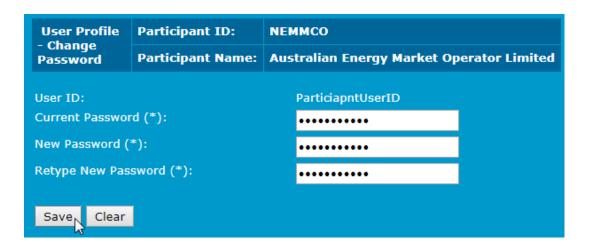
Participant Administrators control access to Change password using the Change password entity in the Administration menu in the MSATS Web Portal.

## Changing your password

- 1. In the main menu, click User Profile and then click Change Password.
- Your User ID is automatically completed. In the Current password field, type the password you logged in with.
- In the New password field, type your new password.
- 4. In the Confirm new password field, type your new password again.



5. To save your new password, click Save. Use your new password next time you sign in to AEMO's energy market systems.



## **Password format**

#### Passwords:

- · Are case sensitive.
- Must be minimum eight characters long.
- Must contain at least one character from at least three of the following four character sets:

Your account is locked after six incorrect password attempts.

Description	Examples
English upper case letters	A, B, C, Z
English lower case letters	a, b, c, z
Numerals	0, 1, 2, 9
Non-alphanumeric ("special characters") such as punctuation symbols	-+!

- Do not include a space, a comma, or any of the following special characters <,</li>
   >, &.
- Expire every 90 days (equals one cycle) but you can it before the 90-day password expiry.
- Cannot be reused in the next 12 cycles.
- Cannot use your Participant User ID or the word "password".

# Edit user profile

The Edit User Profile menu is where you can change your user name, phone number or email address.

## Editing your user profile

- On the main menu, click User Profile and then click Edit User Profile.
- The User Profile Edit interface displays with your user ID pre-filled. Make your changes and click Save.





3. A confirmation message displays.



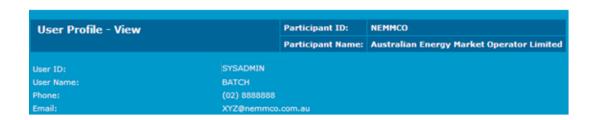
# View user profile

The View User Profile menu is where you can view your user profile details.

# Viewing your user profile

- On the main menu, click User Profile and then click View User Profile.
- 2. The User Profile View interface displays your profile details.





# **Needing Help?**

Clearing your cache	232
Setting a participant	234
Supported web browsers	235
AEMO's support hub	236
Feedback	236

# Clearing your cache

When you use AEMO's web applications, your browser stores information (for example, images) to avoid downloading it every time you open the web page. While this increases the speed, it could mean you are getting an older version of the web page and not the latest updates. To avoid this, AEMO recommends you clear the cache regularly.

The following sections explain the steps to clear the cache in your web browser.

## **Google Chrome**

- 1. Click the three dots in the top-right of your browser.
- Click Settings. You can also open this window using the Ctrl + Shift + Delete keyboard shortcut.
- 3. Scroll to the bottom of the page and click Advanced.
- Under Privacy and security, click the arrow next to Clear browsing data. A new window opens.

- Select the Cookies and other site data, and Cached images and files options.
- 6. From the Time range drop-down menu, choose All time option.
- 7. To clear all cache information, click Clear data.

## Internet Explorer (IE)

- On your web browser, click Setting > Internet Options > General tab >
   Browsing history, click Delete... You can also open this window using the
   Ctrl + Shift + Delete keyboard shortcut.
- 2. In the Delete Browsing History window, select Cookies and website data option.
- 3. To remove all cache information, click Delete.

## Microsoft Edge

- 1. Click ... on your browser.
- Click Settings > Clear browsing data > Choose what to clear option from the dropdown menu. You can also open this window using the Ctrl + Shift + Delete keyboard shortcut.
- 3. Select the Cookies and saved website data, and Cached data and files options.
- 4. To delete all cached information, click Clear.

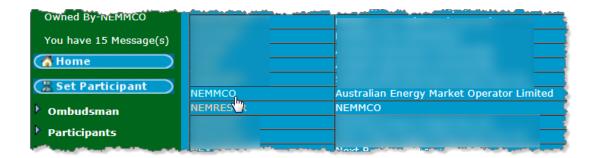
# Setting a participant

Providing you have permission to do so, the **Set Participant** function allows you to act for another participant without having to log out, change IDs and log in again. The participant you are acting for is indicated in the top right of the Markets Portal. For permission to see other participant IDs using Set Participant, see your company's PA.

When you are using the Set Participant function, you can only log into MSATS once on the same computer.

#### To use Set Participant:

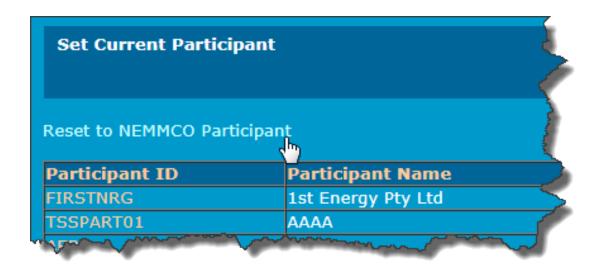
On the MSATS main menu, click Set Participant.
 If Set Participant is unavailable, you do not have the correct permissions.
 Ask your company's Participant Administrator to consider granting you access to use the Set Participant function. For help, see Guide to User Rights Management.



- In the Set Current Participant interface, find the Participant ID you want to act for.
- 3. The participant you are acting for displays in the top-right corner.

Participant ID:	NEMMCO
Participant Name:	Australian Energy Market Operator Limited

4. To return to the Participant ID you logged in with, click Set Participant and Reset to <Participant ID> participant.



# Supported web browsers

To access the Markets 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 (AEMO recommended)	All platforms	Latest version	https://www.whatismybrowser.com/guides/the- latest-version/chrome

# **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).

The Contact Us form on AEMO's website.

AEMO recommends
participants call
AEMO's support hub for
all urgent issues,
whether or not you have
logged a call using the
contact us form.

## **Feedback**

To suggest improvements to this document, please contact the AEMO Information and Support Hub.

# **Terms**

## Rules terms

You can find the following terms defined in the National Electricity Rules.

Registered Participant	5
Connection Point	97
Settlements	97
NMI	114
NMI Standing Data	97
Metering Data	165
Interval Metering Data	172

# Glossary

You can find glossary terms in the:

- Retail Electricity Market Procedures Glossary and Framework
- Industry terminology on AEMO's website.

# References

#### You can find resources on AEMO's website.

Technical Guide to MSATS	1
Current National Electricity Rules	4
Retail and Metering procedures	4
Retail Electricity Market Procedures - Glossary and Framework	4
Retail Electricity Market Procedures - Glossary and Framework	4
aseXML Standards	4
MSATS Procedures	5
Technical Guide to MSATS	5
Guide to User Rights Management	15
Guide to Transition of aseXML	28
Guide to Transition of aseXML	31
Guide to NEM Retail B2M APIs	34
CATS and WIGS Procedures	36
MDM Procedures	36
Technical Guide to MSATS	37
Standing Data for MSATS	37
Standing Data for MSATS	56
MSATS Procedures: CATS Procedure Principles and Obligations	61
MSATS Procedures: CATS Procedure Principles and Obligations	62
MSATS Procedures: CATS Procedure Principles and Obligations	67
Technical Guide to MSATS	98
Technical Guide to MSATS	111

Standing Data for MSATS	. 114
MDM File Format and Load Process	.145
aseXML Guidelines	. 145
Technical Guide to MSATS	145
Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)	. 197
Guide to User Rights Management	. 198
Guide to MSATS Reports	. 199
Guide to MSATS Web Portal	.204
Guide to B2M Retail APIs	.204
Guide to User Rights Management	206
Guide to User Rights Management	.213
Standing Data for MSATS	214
Retail Electricity Market Procedures - Glossary and Framework	237

# Index

1 Clearing your cache 232 15-minute Interval meter 187 Codes Maintenance 213 3 Codes maintenance lists 216 30-minute Interval meter 187 Codes Maintenance user rights access 214 Α Consumption Metering Data results originating About NMI Discovery 98 from MTRD or MDMT 169 Accumulation 169 Creating a new contact 23 Administration 213 D Data Load Import 143 aseXML schema tansition plan 31 Dayzip Download 162 Assumed Knowledge 4 Dayzip Download user rights access 162 В Batch reports 198, 206 Deleting a contact 27 C Deregistration codes 216 Change password 227 DLF codes 217 Change password user rights access 228 Downloading an Ombudsman report 12 Change reason codes 216 E Change request queue 212 Edit User profile 229 Change Requests 37 Editing a contact 26 Change your participant schema version or Embedded network identifier codes 217 outbox protocol 32 eport scheduler queue 210 Changing the B2M aseXML schema 29 Error codes 218 Changing your password 228

Example RM11 Missing Data report 206

export the results to csv 166 Interval metering data search fields explained 175 F J Feedback 236 Jurisdiction codes 218 File processing 29 Jurisdictional rules 100 FTP System Status 34 М FTP System Status user access rights 35 MDM report types 202 G MDM reports 201 Glossary 237 MDM stored metering data received as an Н MDMT transaction 177 Header Information 205 MDM stored metering data received as an MTRD transaction 178-180, 182, 184 Increasing the upper limit 208 Metering Data 165 Interactive reports 198, 207 Metering data result fields 171 Interpreting interval time 187 Metering data search fields explained 170 Interval meter data search results 168 Metering Data user rights access 166 Interval metering data result fields Metering Installation Type Codes 219 explained 175 Metering review required 113 Interval metering data results from MTRD 174 N Interval metering data results from MTRD or Network tariff codes 219 **MDMT 174** Next scheduled read date change request Interval Metering Data results originating from queue 210 MTRD 169 NMI Classification Codes 220 Interval Metering Data results originating from MTRD or MDMT 168 NMI data returned (multiple matches) 118 NMI Discovery 98

NMI Discovery results explained 114 Participant Archive user access rights 158 NMI Discovery user rights access 99 Participant Contacts 20 NMI Master 119 Participant Contacts user rights access 20 NMI Master Summary 122 Participant hub queue user rights access 156 NMI Master Summary user rights access 123 Participant Inbox 143 NMI Master user rights access 119 Participant Inbox Archive 160 NMI Ranges 220 Participant Inbox Archive user rights access 161 NMI Status Codes 221 Participant Inbox user rights access 144 No metering data available 113 Participant Information 15 Notification 85 Participant Information user rights access 15 0 Participant Outbox 148 Objection Codes 222 Participant Outbox user rights access 148 Objections 75 Participant Relationships 129 Obtain Role Data 99 Participant Relationships user rights Obtain Standing data 99 access 129 Ombudsman 7 Participant Schema 28 Ombudsman reports 7 Participant Schema user rights access 29 Ombudsman reports user rights access 7 Participants 15 Outbound message queue 209 Password format 229 Outbound notifications queue 211 Prerequisites 5 Outbound Stop Files 209 Previous reads unavailable 112 P Profile Area 137

Participant Archive 157

Profile Data Source 132 Search Type 2 99 Profile Data Source user rights access 132 Search Type 3 99 Profile Methodology 135 Searching for participant relationship information 129 Profile Methodology user rights access 135 Setting a participant 6, 234 Profile Name 140 Settlement Data 192 Profile Name user rights access 140 Settlement scenario search 195 Profile Preparation 131 Settlement Scenarios 192 Q Settlement Scenarios user rights access 193 Queue Monitoring 207 Settlement type parameters 193 Queue Monitoring user rights access 208 Special settlement scenarios 193 R stop files 207 Related rules and procedures 4 Stop files 207 Request for data 91 Supported Web Browsers 235 Requesting a NMI report 10 System Calendar 225 Requesting an MDMT report 204 System Calendar user rights access 225 Retrieving an archived file 159 Т Role ID Codes 222 TNI Codes 223 Rules Maintenance 223 Transaction Information 205 Rules Maintenance user rights access 223 Transactions 36 RulesTerms 237 Transactions user rights access 37 S U Schema Information 204 Uploading a file 145

Search Type 1 98

User Profile 227

User rights access 5

Using NMI Master Summary search 123

Using the NMI Master search 119

V

View User Profile 230

Viewing a change request response 151

Viewing and requesting CATS reports 199

Viewing and requesting MDM reports 201

Viewing codes maintenance 214

Viewing data streams 108

Viewing meter data 167

Viewing meter registers 109

Viewing Metering Data 111

Viewing participant relationships 109

Viewing profile names 141

Viewing queue monitoring 208

Viewing rules maintenance 223

Viewing settlement scenarios 194

Viewing the participant contact list 20

Viewing the Participant Hub Queue 156

Viewing the Participant Inbox 144

Viewing the Participant Inbox Archive 161

Viewing the Participant Outbox 149

Viewing the system calendar 225

Viewing your participant schema 30

Viewing your user profile 231