



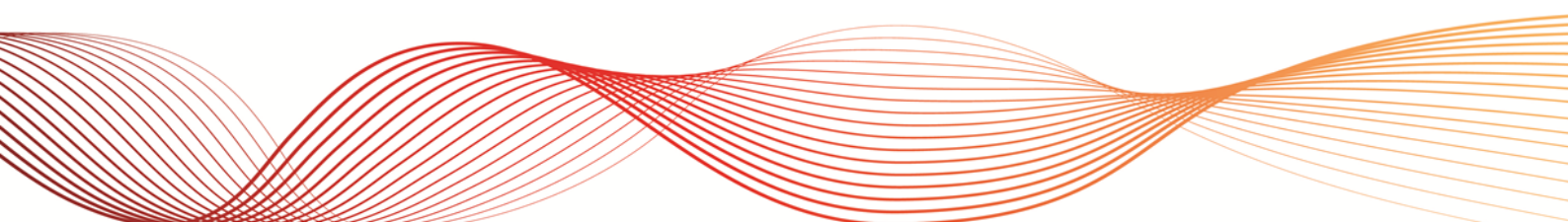
INTRODUCTION TO MSATS

PROVIDES AN INTRODUCTION TO THE MARKET SETTLEMENT
AND TRANSFER SOLUTION (MSATS)

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CHAPTER 1 INTRODUCTION

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Purpose

This guide is an introduction to using the National Electricity Market (NEM) retail system, Market Settlement and Transfer Solutions (MSATS) web portal and batch interfaces.

For details about other MSATS related guides, see [Guide to Retail Electricity Market Procedures](#).

Audience

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

Who can use MSATS

Registered *Market Participants*, *energy ombudsman*, and AEMO have access to the information in the system in accordance with the National Electricity Rules (NER).

How to use this guide

- This document is written in plain language for easy reading. Where there is a discrepancy between the Rules, NEL or information or a term in this document, the Rules and NEL prevail.
- If there are any inconsistencies between the MSATS Procedures and the B2B Procedures, the MSATS Procedures prevail.

- Diagrams are provided as an overview. In case of ambiguity between a diagram and the text, the text prevails.
- **Text in this format** indicates a resource on **AEMO's website**.
- **Text in this format** indicates a direct link to a section in this guide.
- Glossary terms are capitalised and have the meanings listed against them in the **Guide to MSATS and B2B Terms**.
- *Italicised terms* are defined in the National Electricity Rules. Any rules terms not in this format still have the same meaning.
- Actions to complete in the web portal interface are **bold and dark grey**.
- 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.
- References to currency are to Australian dollars.

What's in this guide

Chapter 2 **About MSATS on page 3** explains what MSATS is for, how to use it, who can use it, its functionality, which participant categories are suitable for each functionality, and Participant User access.

Chapter 3 **Using the Web Portal on page 10** explains the system requirements, how to access it, common interface fields, how to use the Set Participant function, and how to change your password.

Chapter 4 **Using the File Interface on page 19** explains how to access the file server, and provides a brief explanation of Batch Transactions.

Needing Help on page 34 provides information to assist participants with IT related issues and provides guidance for requesting assistance from AEMO.

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The role of the retail market in the NEM

The physical production of electricity uses various technologies and is transported through high voltage *transmission lines* to *distribution networks* operating at *low voltage*. *Retail customers* receive the electricity at their required *voltage*.

Generators producing electricity in the *NEM* sell their output through the wholesale *spot market* operated by AEMO. *Retailers*, referred to as *Market Customers*, purchase electricity from the *spot market* to sell to *retail customers*.

Full retail contestability prevails throughout the *NEM*, meaning any *retail customer* can purchase electricity from a *retailer* of their choice. To support this, processes and systems facilitate an orderly transfer of *retail customers* from one *retailer* to another ensuring payment streams are not disrupted. This is the function of the *NEM* retail market.

What MSATS is for

MSATS is an IT system operated by AEMO to fulfil its obligations under the NER.

The functionality available within MSATS includes participant administration and the following four areas of functionality:

- **Consumer Administration and Transfer Solution (CATS)** includes the Participant Life Cycle, CATS, and NMI Standing Data Management.
- **Wholesale, Interconnector, Generator and Sample (WIGS)** contains the principles that govern the transfer of consumer settlements, the registration of metering installation, and management of standing data for NMIs that are classified as wholesale, interconnector, generator, or sample.

- **Metering Data Management System (MDM)**, includes the Profile Preparation Service, Basic Meter Profiling and Data Aggregation.
- **Business to Business System (B2B)**, includes the *B2B e-Hub* and the B2B Responder used for B2B technical testing and accreditation.

For further details **Functionality on page 1.**

For details regarding the registration process and access to AEMO's web portals, see the **Guide to Information Systems.**

How do you use MSATS

There are several ways to interact with MSATS:

- The MSATS web portal (interactive), accessed using an internet browser. For help, see [Accessing the web portal on page 11](#).
- The Participant File server (batch) accessed using FTP or API protocols. For help, see [Accessing the file server on page 20](#).

Your company's participant administrator (PA) can provide you the URL and your user ID and password. If you don't know who your company's PA is contact AEMO's Support Hub.

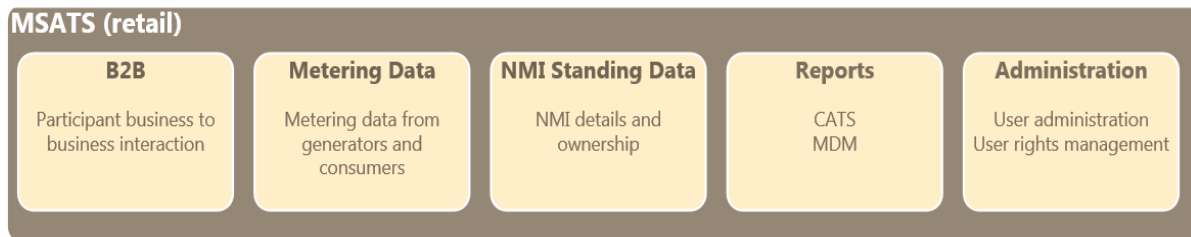
You only have access to the menu items that your access rights allow. For help, see **User rights access on page 8.**

Who can use MSATS

Registered *Market Participants*, *energy ombudsman*, and AEMO have access to the information in the system in accordance with the National Electricity Rules (NER).

MSATS functionality

below summarises the functionality available in MSATS. For details about the functionality relevant to each participant category in the retail market, see [Retail participant categories](#) on page 7.



MSATS functionality

Functionality	Interface	Description
Administration	Web portal	Used by participant administrators to set up and maintain user rights to AEMO's system access.
B2B communications	API Gateway FTP Gateway Web portal File upload File server	Supports the creation and management of a defined set of business-to-business transactions and acknowledgements. Optionally used to manage your MSATS B2B inbox and outbox. All files exchanged with MSATS and B2B conform to the Australian Standard for Energy XML (aseXML). For more details, see aseXML Standards on AEMO's website .
B2B responder (pre-production only)	Web portal File server	Used to specify which transactions you would like to receive as part of testing the operational interaction between participants' systems and the <i>B2B e-Hub</i> . Intending B2B participants use the B2B Responder when performing their self-accreditation tests.
File server interaction (Data Load Import)	Web portal File upload File server	Carries messages between MSATS and participant systems and allows access to participant archive folders.

Functionality	Interface	Description
Metering data	Web portal File server	Used for the receipt, storage and aggregation of metering (data stream) data.
MSATS limits	Web service	Informs participants about the status of their transaction limits. Limits are imposed on participant interaction with MSATS to prevent overload of the system.
NMI information	Web portal File server Web service	Search and view NMI information.
Ombudsman (NMI enquiry reports)	Web portal	Provides ombudsman companies with access to NMI standing data. Participants can view and download reports on ombudsman enquiries.
Participants (information & contacts)	Web portal	Used to view participant information and create and maintain participant contacts. The EMMS Markets Portal uses the MSATS contacts to send notifications for Demand Side Participation, Settlement statements, and Market Direct notifications.
Profile preparation (profile information)	Web portal	Performs Metering Data Management (MDM) functions such as defining profile methods and areas, defining data sources and creating profiles.
Reports	Web portal File server Web service	Access to CATS & MDM reports.
Settlement data	Web portal File server	Used by authorised users to view settlement data.
Transactions (change requests, objections, notifications, data requests)	Web portal File server	Facilitates the process of consumer connection point transfers and the management of standing data.
User profile	Web portal	Used to change and view user profiles and update passwords. Changing a password in MSATS changes the password for all NEM systems.

Retail participant categories

Table 1 describes the relevant and optional functionalities used in MSATS for each participant category.

Table 1 MSATS functionalities used by each participant category

For more details about participant categories, see [Electricity or Gas Participant Information on AEMO's website](#).

Relevant = | Optional = O

Functionality	Generator	Customer classifying loads Small Generation Aggregator	Customer	Network Service Provider Special Participant	Trader	Reallocator
Administration						
B2B e-Hub	O	O				
B2B responder	O	O				
File server interaction (Data Load Import)	O	O				
Metering data	O	O				
MSATS limits	O	O				
NMI information	O	O				
Ombudsman	O	O				
Participants	O	O				
Profile preparation	O	O				
Reports	O	O				

Functionality	Generator	Customer classifying loads Small Generation Aggregator	Customer	Network Service Provider Special Participant	Trader	Reallocator
Settlement data	○	○	👍			
Transactions	○	○	👍	👍		
User Profile	👍	👍	👍	👍	👍	👍

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.

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

AEMO's website has guides for all market systems. The guides have information about the required user access rights and how to access the system. For MSATS, you can download the relevant guide from [AEMO's website > Electricity > Market Settlement and Transfer Solutions](#).

Participant user types

User rights fall into two categories, ordinary user and participant administrator (PA). Many users can share the same right, or a right can be created for an individual. To change your access rights, contact your company's PA. A summary of these rights are:

- **Participant administrators (PAs)** are users who are assigned an administrator right for their company. They maintain users from their company's point of view. PAs create new users and assign rights within their company. Administrators can only assign equal or lesser rights than they have themselves when creating a new user.

- **Ordinary user** are participant users who use MSATS to submit and complete transactions or to look up and download information.

URM entities

Participant administrators assign different entity types to participant users depending on the interface they use:

- **Batch:** For transactions using the batch handlers (file interface).
- **Interactive:** For access to the MSATS web portal and web services.

Set participant

Where a Participant User has user rights assigned by more than one Participant ID, the Participant User selects the Participant ID they want to represent using the **Set Participant** option on the MSATS main menu. For help, see [Set Participant](#) on page 16.

Participant Administrators set up Participant User access in the **Administration > Maintain Rights** menu in the MSATS web portal.

For more details about participant administration and user rights access, see [Guide to User Rights Management](#).

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Web portal system requirements

The MSATS web portal is accessed using a web browser and requires:

- The website address where the application is located on AEMO's network:
 - Pre-production: <https://msats.preprod.nemnet.net.au>
 - Production: <https://msats.prod.nemnet.net.au>
- Either the current or previous versions of Microsoft Internet Explorer or Google Chrome.
- Access to MarketNet; if your company is a registered participant, you probably already have access because it is set up during participant onboarding. For more details, see [Guide to Information Systems](#).
- A user ID and password provided by your company's participant administrator (PA) who controls access to AEMO's web portals. For more details see [Guide to User Rights Management](#).
PAs are set up during participant onboarding, if you don't know who your company's PA is, contact AEMO's Support Hub.

MSATS runs on both Windows and Unix-like operating systems.

Accessing the web portal

1. Using your web browser enter the MSATS web portal URL. For help, see [Web portal system requirements](#) on the previous page
2. Sign in using the user ID and password provided by your company's PA. For help, see [User rights access](#) on page 8.

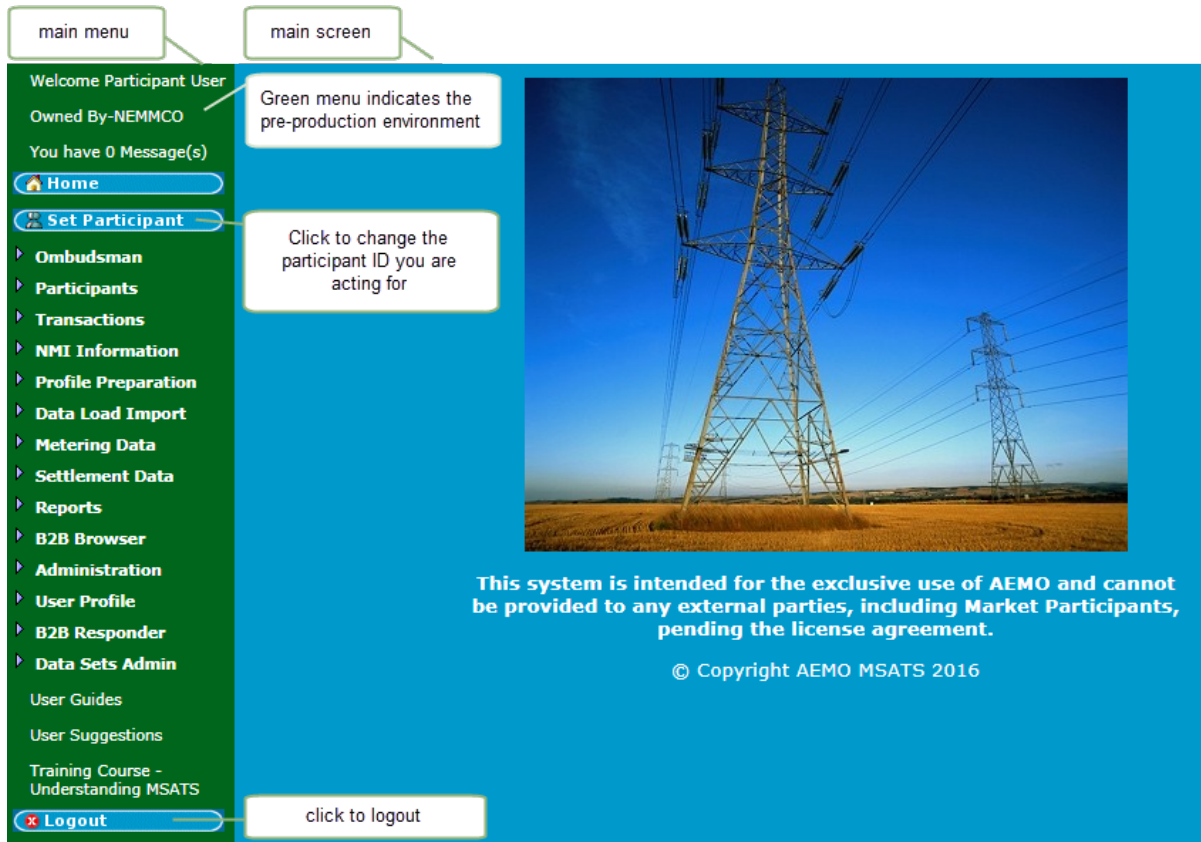
The right your PA assigns you determines the functionalities you can access. Your menu items may differ from the ones you can see here.

3. The home page displays with:
 - The **main menu** is on the left of the interface. Because MSATS is a secure system, accessed using the communications protocols—HTTPS and SSL, use this menu to navigate the functionality. Using the back button to navigate results in an error message.
 - The **main screen** is on the right of the interface. Click the **home** tab to return to the home page at any time.
 - Your sign in credentials display in the top right-hand corner of the screen.
 - If you have changed the Participant ID you are doing work for using the Set Participant option, the participant you are acting for displays also. For help, see [Set Participant](#) on page 16.
 - To sign out of the MSATS web portal, click the **Logout** option at the bottom of the main menu.

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

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



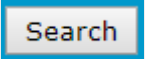




Figure 1 MSATS Home



MSATS field types

The following table contains an explanation of the field types used in the MSATS web portal.

Field name	Description	Field
Free text	Fields allowing information with no specific data type to be entered (although some fields may have character limits applied e.g. 50 characters).	<input type="text"/>
Mandatory	Data for Mandatory fields must be entered. If a field is mandatory it displays with an asterisk (*) after the field name.	Title (*): <input type="text"/>
Drop-down list	Click the arrow to display the list of options. Click the option to select it.	A - Active <input type="button" value="v"/>
Option button	Click the Option Buttons to select an option. Only one option can be selected at a time. A green radio button is the selected one.	<input checked="" type="radio"/> All Participants <input type="radio"/> Submitted Date
Check box	Check boxes are used as Yes or No options. A Check Box with a tick means the option is selected.	<input checked="" type="checkbox"/> <input type="checkbox"/>

Field name	Description	Field
Action Buttons	Action buttons perform appropriate functions according to the screen functionality.	
	Resets all fields to blank.	
	Saves the information currently displayed on the screen.	
	Searches for the specified criteria entered and displays the results.	
	Move to the next screen in the sequence.	
Hyperlink	Click the hyperlink to go to another location in MSATS or another application or website. Hyperlinks within MSATS are displayed in orange.	
MSATS calendar	Click the calendar icon next to the field to select the date from the MSATS calendar. Use the drop-down lists to select the month and year, and then click the appropriate date in the calendar. Note: you can also enter dates manually using the format, dd-mmm-yyyy, e.g. 03-sep-2010.	
	Alternatively use the arrows to navigate through the months and years.	
	Moves the date backward one year at a time.	





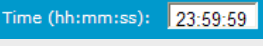
Field name	Description	Field
	Moves the date forward one year at a time.	
	Moves the date backward one month at a time.	
	Moves the date forward one month at a time.	
	Sets the date to the current day.	
Time format	The time must be entered in the following format - hh:mm:ss, e.g. 23:59:59	

Figure 2 is an example of the field types in the Change Request – Search screen.

Figure 2 Change Request - Search screen fields

The screenshot shows the 'Change Request - Search' interface with the following annotated fields:

- Free text field:** Change Request ID
- Hyperlink:** New
- Drop-down list:** Or
- Option button:** Request Entered By (radio buttons for Current Participant Only and All Participants)
- Calendar icon:** To (*) (dd-mmm-yyyy)
- Mandatory field:** Date From (*) (dd-mmm-yyyy)
- Action buttons:** Search and Clear

Set Participant

The web portal allows participant users to change the participant ID they are doing work for without having to log out and back in again with a different user ID and password. The Set Participant function is only visible to users who have the appropriate access rights provided by their company's PA. For help, see [User rights access on page 8](#).

To use the Set Participant function, participant users must have a single user ID. For help setting up single user IDs, see the [Guide to User Rights Management](#).

When you set a new participant all open tabs are closed, please make sure you have saved or submitted all your work before setting a participant.

Setting a participant

1. In the main menu, click **Set Participant**. For help, see [MSATS Home on page 12](#).

If you cannot see the **Set Participant** option, you do not have the correct permissions. Ask your company's participant administrator to consider granting you access to the Set Participant function. For help, see [User rights access on page 8](#).

2. Find the Participant ID in the list and then click to select it.



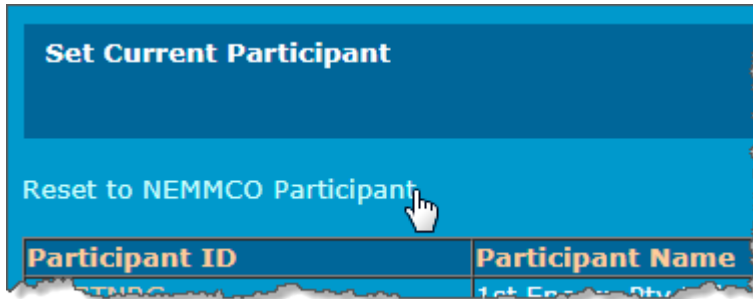
ESIPC	Australian Energy Market Operator Limited
NEMMCO	Australian Energy Market Operator Limited
	Australian Energy Market Operator Limited

3. The participant you are acting for displays in the top of the main screen.



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

To return to the participant ID you logged in with, click **Set Participant and Reset to "Participant ID"**.



Changing your password

Use the **Change Password** function to change your password for **all** electricity market systems.

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

1. In the main menu, click **User Profile** and then click **Change Password**.



2. Your User ID is automatically completed. In the **Current password** field, type the password you logged in with.
3. 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.

User Profile - Change Password	Participant ID:	NEMMCO
	Participant Name:	Australian Energy Market Operator Limited
User ID:	ParticiapntUserID	
Current Password (*):	<input type="password"/>	
New Password (*):	<input type="password"/>	
Retype New Password (*):	<input type="password"/>	
<input type="button" value="Save"/> <input type="button" value="Clear"/>		

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About the file interface

The file interface uses batch handlers that allow communications between the MSATS system and participant systems. All communication between MSATS and participants' systems is done using aseXML-formatted messages. When communications are processed using the batch handlers, they undergo the same validity checks as if they were processed using the MSATS web portal.

The instructions in this section are a guide only, to learn more about creating an aseXML file, see the [aseXML standards](#), in particular schemas and sample files.

There are two ways to use the batch handlers:

1. Interactive Loading - submitting batch files using the MSATS web portal. Participants load batch files using the Participant Inbox menu and the **Upload** option. When participants click the **Upload** option, they are placing the batch file into their inbox directory on the AEMO participant file server. For help, see Data Load Import in the [Guide to MSATS Web Portal](#).
2. Direct Loading – participants place batch files directly into their participant inbox directory on the AEMO participant file server from their systems. This is the preferred option if a participant has a large number of files to process. To learn more, see [Guide to Participant Batcher Software](#).

Accessing the file server

1. FTP to either:
 - MSATS production: ftp://146.178.211.205
 - MSATS pre-production: ftp://146.178.211.225
2. Sign in using the user ID and password provided by your company's Participant Administrator. For help, see [User rights access](#) on page 8.

For more details, see [Connecting to AEMO's Electricity IT Systems](#).

Batch handler transactions

Batch handler transactions overview

The batch handlers provide a means for participants to create, withdraw, edit, and object to change requests using .XML files. The transaction types required to create and manage change requests are:

- Change request
- Change withdrawal
- Objection
- Objection withdrawal

Creating a transaction

All transaction files are created in the same way although the data required differs depending on the type of transaction you are creating. For an example, see [Figure 3](#).

To create a transaction:

1. Create an .XML file containing the change request, objection, or notification transaction record according to the current aseXML schema format.
2. Name the file according to AEMO specifications and compress the file into a .ZIP format.

3. Access your participant inbox and upload your file. For help, see Data Load Import in the [Guide to MSATS Web Portal](#).
4. To view the response, access your participant outbox.

Figure 3 is an example of a change request transaction .XML file.

Figure 3 example of a change request transaction .XML file

```

<?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>PPPPPP</From>
  <To description="National Electricity Market Management Company">NEMMCO</To>
  <MessageID>PPPPPP-MSG-04323</MessageID>
  <MessageDate>2009-02-07T09:20:10.000+10:00</MessageDate>
  <TransactionGroup>CATS</TransactionGroup>
  <Priority>Medium</Priority>
  <SecurityContext>PPPPPPBATCH</SecurityContext>
  <Market>NEM</Market>
</Header>
- <Transactions>
- <Transaction transactionID="PPPPPP-TNS-2501" transactionDate="2009-02-07T09:20:10.000+10:00">
  - <CATSChangeRequest version="r19">
    <ChangeReasonCode>2501</ChangeReasonCode>
    <ProposedDate>2009-03-10</ProposedDate>
    - <NMISstandingData xsi:type="ase:ElectricityStandingData">
      <NMI checksum="8">9876543210</NMI>
      - <MasterData>
        <JurisdictionCode>NSW</JurisdictionCode>
        <NMIClassificationCode>SMALL</NMIClassificationCode>
        <TransmissionNodeIdentifier>NSW1</TransmissionNodeIdentifier>
        <DistributionLossFactorCode>xyz1</DistributionLossFactorCode>
      - <Address>
        - <StructuredAddress>
          - <House>
            <HouseNumberSuffix>9</HouseNumberSuffix>
          </House>
          - <Lot>
            <LotNumber>9</LotNumber>
          </Lot>
          - <Street>
            <StreetName>Main</StreetName>
            <StreetType>ALLY</StreetType>
          </Street>
        </StructuredAddress>
        <SuburbOrPlaceOrLocality>CAMDEN</SuburbOrPlaceOrLocality>
        <StateOrTerritory>NSW</StateOrTerritory>
        <PostCode>2131</PostCode>
        <DeliveryPointIdentifier>12345678</DeliveryPointIdentifier>
      </Address>
    </NMISstandingData>
  </CATSChangeRequest>
</Transaction>
</Transactions>
  
```

Editing a change request

The process for editing a change request using the batch handlers is almost identical to creating a change request. A new change request transaction is

submitted, which contains the correct information including one additional data element. This is the request ID of the original change request in the <InitiatingRequestID> element.

When you submit the second change request, MSATS does the following:

1. Creates a new change request with the status of PVAL (pending validation).
2. Determines, during the second-level validation, that this is an edit to an existing change request.
3. Cancels the existing change request (its status changes to CAN).
4. Creates a further new change request that is a 'merging' of the two change requests that has a status of REQ. (This is the change request that proceeds).
5. Cancels the first change request.

This is an example of an edited change request transaction with the <InitiatingRequestID> element.

Figure 4 edited 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>PPPPPP</From>
  <To description="National Electricity Market Management Company">NEMMCO</To>
  <MessageID>PPPPPP-MSG-04323</MessageID>
  <MessageDate>2009-02-07T09:20:10.000+10:00</MessageDate>
  <TransactionGroup>CATS</TransactionGroup>
  <Priority>Medium</Priority>
  <SecurityContext>PPPPPPBATCH</SecurityContext>
  <Market>NEM</Market>
</Header>
- <Transactions>
- <Transaction transactionID="PPPPPP-TNS-2501" transactionDate="2009-02-
  07T09:20:10.000+10:00">
  - <CATSChangeRequest version="r19">
    <ChangeReasonCode>2501</ChangeReasonCode>
    <ProposedDate>2009-03-10</ProposedDate>
    <InitiatingRequestID>2222</InitiatingRequestID>
  - <NMISTandingData xsi:type="ase:ElectricityStandingData">
    <NMI checksum="8">9876543210</NMI>
  - <MasterData>
    <JurisdictionCode>NSW</JurisdictionCode>
    <NMIClassificationCode>SMALL</NMIClassificationCode>
    <TransmissionNodeIdentifier>NSW1</TransmissionNodeIdentifier>
    <DistributionLossFactorCode>xyz1</DistributionLossFactorCode>
  - <Address>
    - <StructuredAddress>
      - <House>
        <HouseNumberSuffix>9</HouseNumberSuffix>
      </House>
    - <Lot>
```

For change requests edited using the batch handlers, two change request response (CRR) transactions are received:

1. One for the submitted change request that provides the correct information.
2. One for the final new change request that MSATS creates which is the merging of the original change request and the new one.

If there was a problem with the first change request because it failed the second-level validations and was rejected; only the first change request response is received.

Withdrawing a change request

When withdrawing a change request using the batch handlers, a message containing a change withdrawal transaction must be submitted. The only data element supplied is the <RequestID> element.

The participant who created the original change request must create the change request withdrawal and the user ID identified in the <SecurityContext> element must have the right to submit a change withdrawal transaction by batch.

This is an example of a change request withdrawal with the <RequestID> element.

Figure 5 Change request withdrawal 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="XXXXXXXXXXXX">XXXXXX</From>
  <To description="PPPPPPPP">PPPPPP</To>
  <MessageID>XXXXXX-MSG-289496965</MessageID>
  <MessageDate>2009-03-19T11:53:09+10:00</MessageDate>
  <TransactionGroup>CATS</TransactionGroup>
  <Priority>Medium</Priority>
  <SecurityContext>XXXXXXBATCH</SecurityContext>
  <Market>NEM</Market>
</Header>
- <Transactions>
- <Transaction transactionID="XXXX-63133548" transactionDate="2009-03-19T11:53:09+10:00">
  - <CATSChangeWithdrawal version="r4">
    <RequestID>76543210</RequestID>
  </CATSChangeWithdrawal>
  </Transaction>
</Transactions>
</ase:aseXML>
```

For change requests withdrawn using the batch handlers, a change request response (CRR) file is received indicating whether the withdrawal was successful. It looks identical to the change request response received when the change request was submitted. It does not indicate it is a response to a change request withdrawal rather than a response to a new change request. However, it can be identified by using the initiating TransactionID, which is also used in the withdrawal transaction. The RequestID is the RequestID of the existing change request being withdrawn and not a new RequestID.

Withdrawing an objection

The process for withdrawing an objection using the batch handlers is almost the same as creating an objection using the batch handlers. However, for the withdrawal to be successful, the <ObjectionID> generated when the original objection was processed is included in the file. A batch handler withdrawal is acknowledged by an objection withdrawal transaction in the participant outbox.

To log an objection withdrawal:

1. Create an .XML file according to the current aseXML schema format and include the following field:

Element Name	Description	Example
<ObjectionID>	The objection ID generated with the original objection file. This is the ObjectionID that appeared in the objection response message that was sent after processing.	<ObjectionID>76543210</ObjectionID>

2. Name the file according to AEMO specifications and compress the file into a .ZIP format.
3. Access your participant inbox and upload your file. For help, see Data Load Import in the [Guide to MSATS Web Portal](#).
4. To view the response, access your participant outbox.

This is an example of an aseXML file for withdrawing objections. The <Header> information provided is the same as the standard for a CATS medium transaction. However, in the transactions section of the file, there is a CATS objection withdrawal transaction. These fields are:

- <ObjectionID>: the ID generated when the original objection was logged.
- <InitiatingRequestID>: the change request ID the objection was logged against.
- <Role>: the role in which the objection was logged.
- <ObjectionCode>: the objection code used by the objection.

Figure 6 aseXML file for withdrawing objections

```
<?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="PPPPPPPP">PPPPPP</From>
  <To description="NEMMCO">NEMMCO</To>
  <MessageID>PPPPP-MSG-14972874</MessageID>
  <MessageDate>2009-03-27T14:47:11+10:00</MessageDate>
  <TransactionGroup>CATS</TransactionGroup>
  <Priority>Medium</Priority>
  <SecurityContext>PPPPPPBATCH</SecurityContext>
  <Market>NEM</Market>
</Header>
- <Transactions>
- <Transaction transactionID="PPPPPP-14972874" transactionDate="2009-03-27T14:47:11+10:00">
  - <CATSObjectionWithdrawal version="r4">
    <ObjectionID>76543210</ObjectionID>
    <InitiatingRequestID>4323</InitiatingRequestID>
    <Role>FRMP</Role>
    <ObjectionCode>NOTRESP</ObjectionCode>
  </CATSObjectionWithdrawal>
  </Transaction>
</Transactions>
</ase:aseXML>
```

For objections withdrawn using the batch handlers, an objection transaction file indicates whether the withdrawal was successful. It looks identical to the objection transaction received when an objection is submitted. The transaction does not state that it is a response to an objection withdrawal rather than a response to a new objection. However, it contains the initiatingTransactionID, which is the one that was in the withdrawal transaction. The ObjectionID is the ObjectionID of the objection being withdrawn and not a new ObjectionID.

Batch handler notifications

A notification sent by batch contains the same information found when viewing a notification on the MSATS web portal, except:

- The change request status is the change request status that caused the generation of the notification, unlike the MSATS web portal where all the notification records for a change request show the status.
- Each notification includes the Jurisdiction, NMI classification and ObjectionEndDate, as shown in this example:

```
<JurisdictionCode>NSW</JurisdictionCode>  
<NMIClassificationCode>SMALL</NMIClassificationCode>  
<ObjectionEndDate>2009-03-27</ObjectionEndDate>
```

- It is easier in a batch notification message to determine if an objection-related notification is an objection or objection withdrawal, because the <ObjectionAction> element contains **Raised** or **Withdrawn**.
- A notification associated with an objection includes the objection date.
- The COM notification sent to participants nominated as new parties on the change request and who are new participants in that role includes a complete set of the active NMI master records the participant requires for each of the five master tables. It may include active current and/or active historic data depending on the period covered by the change request. The supply of the NMI's master data applies to notifications to roles: FRMP, LNSP, LR, MDP, MBP and RP.

To view a notification, access your participant outbox:

The COM notification follows the Replication Report Format structure as used by the C1 reports and uses the CATS Master Report Parameters structure to present the parameters (such as, the NMI Master C4 report).

To find out more about the error descriptions in notifications, obtain a C1 report of the CATS_Error_Codes.

Batch handler NMI information

NMI Discovery type 1

Search type 1 (NMI Discovery) finds a NMI and its checksum by searching on a customer's address, the address DPID, or a meter serial number. All NMI Discovery response files are delivered in .ZIP files that must be acknowledged as soon as possible to ensure they are removed from the participant outbox. After a file is acknowledged, MSATS moves it from the participant outbox to an archive folder. The file remains for some time in the archive folder.

Participants can include multiple transactions in a single batch file. Requests are processed individually and a single response per transaction is provided.

To create a NMI Discovery request:

1. Create an .XML file according to the current aseXML schema format. The data required differs depending on the search criteria entered (such as, Address, Meter Serial ID or DPID). To perform a successful NMI Discovery search using the batch handlers, your .XML file must contain one of the following criteria:
 - Delivery point identifier
 - Meter serial number
 - Physical address
2. Name the file according to AEMO specifications. The filename consists of the Transaction Group, Priority Level, and a Transaction ID that starts with the participant ID. Save files with an .XML extension and must be in lower case.
3. Name the file according to AEMO specifications and compress the file into a .ZIP format.
4. Access your participant inbox and upload your file. For help, see Data Load Import in the [Guide to MSATS Web Portal](#).
5. To view the response, access your participant outbox.

The response to a NMI Discovery request contains the following information:

- The code within the <Event> element provides useful information. For a NMI Discovery a code of 0 (zero) means the result was successful but is not

necessarily an exact match.

- A four-digit code indicates an error. For example, 1404 indicates that no data was found matching the search criteria.
- Assuming the response indicates success, the information returned depends on the jurisdictional rules. The same data is returned if the search is done in the web portal.
- All NMIs matching the search criteria are returned up to the jurisdictional limit.

NMI Discovery type 2 (Obtain Standing Data)

Search type 2 (obtain standing data) - is the process of entering a NMI and checksum to locate standing data about the NMI.

To create a NMI Discovery type 2 (Obtain Standing Data) request:

1. Create an .XML file according to the current aseXML schema format. The NMI and the checksum are required for a type 2 search. For help, see [Figure 7](#).
2. Name the file according to AEMO specifications and compress the file into a .ZIP format.
3. Access your participant inbox and upload your file. For help, see Data Load Import in the [Guide to MSATS Web Portal](#).
4. To view the response, access your participant outbox.

Figure 7 NMI Discovery 2 example



```
</Header>
<Transactions>
  <Transaction transactionID="NMID-33381536" transactionDate="2009-01-09T14:42:41+10:00"
  initiatingTransactionID="PXYZR-MSG-MW0002">
    <NMIDiscoveryResponse version="r17">
      <NMIStandingData xsi:type="ase:ElectricityStandingData" version="r19">
        <NMI checksum="7">6407708521 </NMI>
      </NMIStandingData>
    </NMIDiscoveryResponse>
  </Transaction>
</Transactions>
<MasterData>
  <Address>
    <StructuredAddress>
```

NMI Discovery 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.

Notes:

- **Correct retailer:** The retailer 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 create a NMI Discovery type 3 (Obtain Role Data) request.

1. Create an .XML file according to the current aseXML schema format with a standard NMI Discovery request header. For help, see [Figure 8](#).

Note: The Type, NMI checksum, and Reason fields are mandatory. For a list of reason codes, see [Figure 1-1 on page 1](#).

3. Enter **NMID** for the **Transaction Group**.
4. Enter **ROLE_REQUEST** for the **Type**.
5. Name the file according to AEMO specifications and compress the file into a .ZIP format.
6. Access your participant inbox and upload your file. For help, see Data Load Import in the [Guide to MSATS Web Portal](#).
7. To view the response, access your participant outbox.

Figure 8 NMI Discovery type 3 request example with two transactions

```
<?xml version="1.0"?>
<ase:aseXML xmlns:ase="urn:aseXML:r31" xmlns: xsi="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 description="Participant Retail Pty Ltd">PARTICIPANT</From>
    <To description="National Electricity Market Management Company">NEMMCO</To>
    <MessageID>PARTICIPANT-MSG-11234569</MessageID>
    <MessageDate>2001-10-31T13:20:10.000+10:00</MessageDate>
    <TransactionGroup>NMD</TransactionGroup>
    <Priority>High</Priority>
    <SecurityContext>zz023</SecurityContext>
    <Market>NEM</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="ENERGEX-TNS-12348990" transactionDate="2001-10-31T13:20:09.900+10:00">
      <NMIStandingDataRequest version="r31">
        <NMI checksum="5">1234567890</NMI>
        <Type>ROLE_REQUEST</Type>
        <Reason>TRI</Reason>
      </NMIStandingDataRequest>
    </Transaction>
    <Transaction transactionID="ENERGEX-TNS-12348990" transactionDate="2001-10-31T13:20:09.900+10:00">
      <NMIStandingDataRequest version="r31">
        <NMI checksum="5">1234567890</NMI>
        <Type>ROLE_REQUEST</Type>
        <Reason>SAB</Reason>
      </NMIStandingDataRequest>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

Figure 9 NMI Discovery type 3 response example

```
<?xml version="1.0" ?>
<ase:aseXML xmlns:ase="urn:aseXML:r31" xmlns: xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r31 http://www.nemmco.com.au/aseXML/schemas/r31/aseXML_r31.xsd">
.....
  <Transactions>
    <Transaction transactionID="NMD-816" transactionDate="2012-10-29T11:02:17+10:00" initiatingTransactionID="TX123">
      <NMIStandingDataResponse version="r4">
        <NMIStandingData xsi:type="ase:ElectricityStandingData" version="r31">
          <NMI>NEMMT12513</NMI><RoleAssignments>
            <RoleAssignment>
              <Party>POOLTST</Party>
              <Role>FRMP</Role>
            </RoleAssignment>
          </RoleAssignments>
        </NMIStandingData>
        <Event severity="Information">
          <Code>0</Code>
        </Event>
      </NMIStandingDataResponse>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

Batch handler reports

You can also request CATS and MDM reports using the batch handlers. When a report is processed using the batch handlers, it undergoes the same validity checks as a report processed using the web portal.

All reports, whether requested using the web portal or using the batch handlers, are delivered as batch files. Each report is a .ZIP file placed in your participant outbox.

Creating a report request

To create a report request

1. Create an .XML file containing the report request according to the aseXML schema format. Each report requires a different set of parameters; the easiest way to identify the parameters for each report is to request it using the web portal and check the output. For help, see [Figure 10](#).
2. Name the file according to AEMO specifications: The filename consists of the Transaction Group (CATS), Priority Level (M), and the Transaction ID (unique ID that includes the participant ID). Files must be saved with an .XML extension and are usually in lower case, for example, catsm_ppppppp_1000.xml.
3. Compress the file into a .ZIP format.
4. Access your participant inbox and upload your file. For help, see Data Load Import in the [Guide to MSATS Web Portal](#).
5. To view the response, access your participant outbox.

Figure 10 on the next page is an example of a report request .XML file.

Figure 10 Report request example

```
<?xml version="1.0" ?>
- <ase:aseXML xmlns:ase="urn:aseXML:r9" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:aseXML:r9
http://www.nemmco.com.au/aseXML/schemas/r9/aseXML_r9.xsd">
- <Header>
  <From description="Energy Australia - Retailer">ENGYAUST</From>
  <To description="National Electricity Market Management Company">NEMMCO</To>
  <MessageID>ENGYAUST-MSG-MASTER-R9</MessageID>
  <MessageDate>2004-06-05T13:20:10.000+10:00</MessageDate>
  <TransactionGroup>CATS</TransactionGroup>
  <Priority>Low</Priority>
  <SecurityContext>TRAINCATS</SecurityContext>
  <Market>NEM</Market>
</Header>
- <Transactions>
- <Transaction transactionID="ENGYAUST-TNS-MASTER-R9" transactionDate="2004-06-05T13:20:09.900+10:00">
  - <ReportRequest version="r5">
    - <ReportParameters xsi:type="ase:CATSMasterReportParameters">
      <ReportName>Master</ReportName>
      <FromDate>2004-06-21</FromDate>
      <ToDate>9999-12-31</ToDate>
      <AsAtDate>2004-06-23</AsAtDate>
      <LastSequenceNumber>0</LastSequenceNumber>
      <NMI>J700000000</NMI>
      <Participant>ENGYAUST</Participant>
      <Role>FRMP</Role>
      <ReportType>Detailed</ReportType>
    </ReportParameters>
  </ReportRequest>
</Transaction>
</Transactions>
</ase:aseXML>
```

Batch handler participant system status

To create a Participant System Status request:

1. Create an .XML file containing the report request according to the aseXML schema format. Each report requires a different set of parameters. The easiest way to identify the parameters for each report is to request it using the web portal and check the output. For help, see:
 - o Reports on page 1.
 - o Figure 11
2. Name the file according to AEMO specifications: The filename consists of the Transaction Group (CATS), Priority Level (M), and the Transaction ID (unique ID that includes the participant ID). Files must be saved with an .XML extension and are usually in lower case, for example, catsm_ppppppp_1000.xml.
3. Compress the file into a .ZIP format.
4. Access your participant inbox and upload your file. For help, see Data Load Import in the [Guide to MSATS Web Portal](#).
5. To view the response, access your participant outbox.

Figure 11 below is an example of a report request .XML file.

Figure 11 Report request example

```
<?xml version="1.0" ?>
- <ase:aseXML xmlns:ase="urn:aseXML:r9" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:aseXML:r9
  http://www.nemmco.com.au/aseXML/schemas/r9/aseXML_r9.xsd">
- <Header>
  <From description="Energy Australia - Retailer">ENGYAUST</From>
  <To description="National Electricity Market Management Company">NEMMCO</To>
  <MessageID>ENGYAUST-MSG-MASTER-R9</MessageID>
  <MessageDate>2004-06-05T13:20:10.000+10:00</MessageDate>
  <TransactionGroup>CATS</TransactionGroup>
  <Priority>Low</Priority>
  <SecurityContext>TRAINCATS</SecurityContext>
  <Market>NEM</Market>
</Header>
- <Transactions>
- <Transaction transactionID="ENGYAUST-TNS-MASTER-R9" transactionDate="2004-06-05T13:20:09.900+10:00">
  - <ReportRequest version="r5">
    - <ReportParameters xsi:type="ase:CATSMasterReportParameters">
      <ReportName>Master</ReportName>
      <FromDate>2004-06-21</FromDate>
      <ToDate>9999-12-31</ToDate>
      <AsAtDate>2004-06-23</AsAtDate>
      <LastSequenceNumber>0</LastSequenceNumber>
      <NMI>J700000000</NMI>
      <Participant>ENGYAUST</Participant>
      <Role>FRMP</Role>
      <ReportType>Detailed</ReportType>
    </ReportParameters>
  </ReportRequest>
</Transaction>
</Transactions>
</ase:aseXML>
```

NEEDING HELP

Finding help

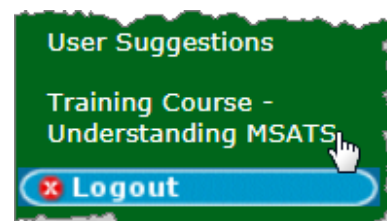
To access help in the MSATS web portal, click User Guides in the main menu.



Understanding MSATS Training

AEMO holds industry training courses to improve participants' knowledge of energy markets, market mechanisms, and operational processes. To view information about MSATS training:

1. On the main menu, click **Training Course - Understanding MSATS**.
2. The Industry Training Courses web page, on AEMO's website displays with information about the courses and how to enrol.



Participant User suggestions

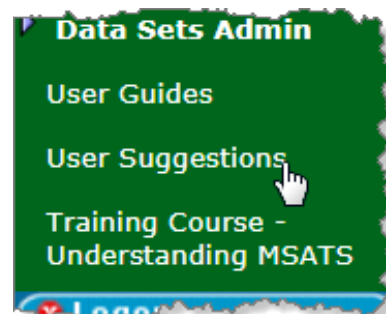
The **User Suggestions - Entry Screen** displays the following information:

- Where to find help for technical difficulties.
- Where to obtain answers to questions relating to MSATS business processes.
- Access to suggest enhancements to any of the following:
 - MSATS user interface
 - CATS processes
 - B2B processes
 - Ombudsman Enquiry system

Making a suggestion

To make a suggestion:

1. On the main menu, click **User Suggestions**.
2. The **User Suggestions - Entry Screen** displays. Read the entry screen and click **OK**.
3. The **User Suggestions - Send Email Screen** displays. Complete each of the compulsory fields marked with an asterisk (*).
4. If desired, enter your **Telephone number**.
5. Click **Browse** to attach any **Supporting Documents**.
6. Click **Send**.



User Suggestions - Send Email Screen		Participant ID:	NEMMCO
		Participant Name:	Australian Energy Market Operator Limited
First Name (*):	<input type="text"/>	Surname (*):	<input type="text"/>
Email Address (*):	<input type="text"/>	Telephone:	<input type="text"/>
Participant/Company (*):	<input type="text"/>		
Suggestion Type (*):	<input type="text"/>	Suggestion Name (*):	<input type="text"/>
Suggestion (*):	<input type="text"/>		
Supporting Documents:	<input type="text"/>	<input type="button" value="Browse..."/>	
<input type="button" value="Send"/>	<input type="button" value="Clear"/>		

- The **User Suggestions - Email Sent Screen** displays your **reference number**. Quote this number with any correspondence with the Support Hub.
- Click **OK** to return to the **User Suggestions - Entry Screen**.

User Suggestions - Email Sent Screen		Participant ID:	NEMMCO
		Participant Name:	Australian Energy Market Operator Limited
<p>Thank you for your MSATS Suggestion. Your suggestion has been provided with the following unique reference number: '25'</p> <p>Your suggestion will be assessed and feedback should be provided to you within 14 business days.</p> <p>Please press 'OK' to return to the User Suggestions Entry Screen</p> <input type="button" value="OK"/>			

AEMO's Support Hub

Contacting AEMO's Support Hub

IT assistance is requested through one of the following methods:

- Phone: 1300 AEMO 00 (1300 236 600)

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

- Email: supporthub@aemo.com.au

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

Information to provide

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

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

For AEMO software-related issues please also provide:

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

Feedback

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

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