

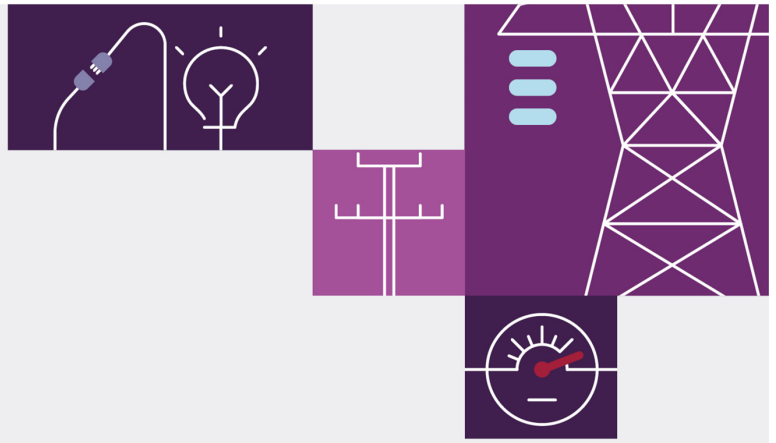
Guide to Transition of aseXML

3.01 March 2022

For NEM Retail Participants

Provides help transitioning your electricity B2M or B2B
aseXML schema version





Important notice

Purpose

This Guide to Transition of aseXML (Guide), prepared by AEMO, provides guidance for aseXML Transition under the National Electricity Rules (Rules).

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Documents made obsolete

The release of this document changes any previous versions of Guide to Transition of aseXML.



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Introduction

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Purpose

This guide provides information for participants transitioning their electricity B2M or B2B aseXML schema version.

Audience

This guide is intended for participants' technical and software development staff responsible for implementing AEMO's systems.

What's in this guide

[Need to Know on page 3](#) provides a list of resources useful for understanding this guide, assumed knowledge, prerequisites, and the entities required for Participant Administrators to provide Participant User access to update aseXML schemas.

[About aseXML Transition on page 6](#) provides a brief overview of the aseXML schemas, who can change a schema, and where to change them.

[Transitioning on page 13](#) provides the basic steps to transition a schema and when you can expect the changes to take effect.



B2M aseXML Schema on page 14 describes the B2M schema and assists participant's to change their receiving schema version for a participant ID.

B2B aseXML Schema on page 35 describes the B2B schema and assists participant's to change their sending and receiving schema version for each transaction for a participant ID.

Needing Help on page 49 provides details about contacting AEMO, how to ask for IT assistance, attending MSUG meetings, and supported web browsers.

Terms on page 53 has a list of Rules terms and where to find definitions for other capitalised terms used throughout this guide.

References on page 54 has a list of additional resources that may assist you.

How to use this guide

- This guide is written in plain language for easy reading.
- Rules terms used throughout this guide are listed on page **Page 53** and defined in the National Electricity Rules.
- Where there is a discrepancy between the National Electricity Rules, and information or a term in this document, the National Electricity Rules takes precedence.
- Where there is a discrepancy between the Appropriate procedures, and information or a term in this document, the Appropriate procedures take precedence.
- **Text in this format** indicates a resource on [AEMO's website](#). For a list, see [References on page 54](#)
- [Text in this format](#) indicates a hyperlink. Only Registered Participants can access some hyperlinks. Non-Registered Participants can search for guides on [AEMO's website](#).
- Actions to complete in the Markets Portal interface are **bold and dark grey**.
- Glossary terms are capitalised and have the meanings listed against them in the Glossary.
- References to Time are Australian Eastern Standard Time (AEST).



Need To Know

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- Assumed knowledge 4
- MarketNet access 4
- User rights access 4
- Prerequisites 5

Related resources

You can find resources mentioned throughout this guide on AEMO's website:
www.aemo.com.au.

The following resources assist with the understanding of this guide:

- aseXML Standards**, a web page with links to guidelines, schemas, change process, sample files and white papers.
- B2B Mapping to aseXML**, provides an understanding of the connection between the B2B aseXML schema and the B2B Procedures.
- Guide to MSATS Web Portal**, use this guide to gain an understanding of the MSATS web portal interface.



Assumed knowledge

This guide assumes you have knowledge of:

- The Retail Electricity Market extensible mark-up language (XML), see **aseXML Standards**.

MarketNet access

Participants require access to AEMO's private network, MarketNet to access the Markets Portal. If you are a Registered Participant this is provided during your registration.

For help, see [Guide to Information Systems](#).

User rights access

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.

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

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



B2M schema user rights access

Your company's Participant Administrator (PA) provides access to changing the B2M Participant ID aseXML schemas in the **MSATS>Administration>Maintain Entities** menu, using the following entity:

- **Participant aseXML Schema**

B2B schema user rights access

Your company's Participant Administrator (PA) provides access to changing the B2B Participant ID aseXML schemas in the **MSATS>Administration>Maintain Entities** menu, using the following entity:

- **B2B Transforms and Protocol**

Prerequisites

- **MarketNet access.**
- A user ID and password with **access rights** to change aseXML schemas.
- The Markets Portal URLs:
 - Pre-production: <https://portal.preprod.nemnet.net.au>
 - Production: <https://portal.prod.nemnet.net.au>



About AseXML Transition

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aseXML schema overview

The aseXML schema defines the communication of data for the electricity retail energy industry in Australia. AEMO communicates extensive amounts of data to multiple participants based on aseXML.

Schema types

There are two schema types each has different updates and versions:

1. [Business-to-Market \(B2M\)](#)
2. [Business-to-Business \(B2B\)](#)

Schema versions

B2M and B2B schema versions change to allow for new features. The Markets Portal web interfaces provide details of the current schema versions required for transactions.

To assist participants to make the transition, AEMO supports both the new and immediately superseded versions of the schemas. This allows time for participants to schedule their transition without forcing a compromise between their peers and AEMO to agree a single transition time.

Any effects due to changes in the meaning of data, rather than its format, may affect participant business processes. These are communicated in [technical specifications](#) as each new version of a schema is announced.

AEMO recommends participants keep up with aseXML schema changes because only one past (superseded) version is supported.

View B2M schema versions

Participant aseXML Schema		Participant ID:	NEMMCO
		Participant Name:	Australian Energy Market Operator Limited
B2M transaction group	Receiving schema version	Receiving protocol	
CATS	LATEST	FTP	
NMID	LATEST	FTP	
MDMT	LATEST	FTP	
Outbox Status: RUNNING		3 zip files in outbox	
<input type="button" value="Please Stop"/> <input type="button" value="Refresh"/>			
Refresh: click to see number of outstanding zip files from AEMO and/or change of Outbox Status to Empty if Stopped			
Please Stop: click to stop receiving of zip files from AEMO so you can change aseXML Version when Empty			
aseXML schema version	Transforms applied		Notes
Superseded	r39_p1	r42 to r39_p1	Superseded aseXML schema version
Current or Latest	r42	No transform	Current aseXML schema version

View B2B schema versions

B2B Transforms and Protocol

You have 0 B2B .ZIP files parked out of the allowed 480.

You have 30 m

B2B transaction group (Inc. B2M MTRD)	Receiving schema version	Change to version	Receiving protocol	Char
MTRD	r38	r38 ▼	FTP	FTP
SORD	r38	r38 ▼	FTP	FTP
MRSR	r38	r38 ▼	FTP	FTP
CUST	r38	r38 ▼	FTP	FTP
SITE	r38	r38 ▼	FTP	FTP
OWNP	r38	r38 ▼	FTP	FTP
OWNX	r38	r38 ▼	FTP	FTP
NPNX	r38	r38 ▼	FTP	FTP
PTPE	r38	r38 ▼	FTP	FTP

Start change

Cancel change

Refresh

Complete change

Receiving schema version	Transforms applied
r38	r41 to r38
r41	r38 to r41

Transition process overview

The transition process allows:

- AEMO to transition to a new schema and some (or all) participants to continue to receive their data in the superseded format (SUPERSEDED status).



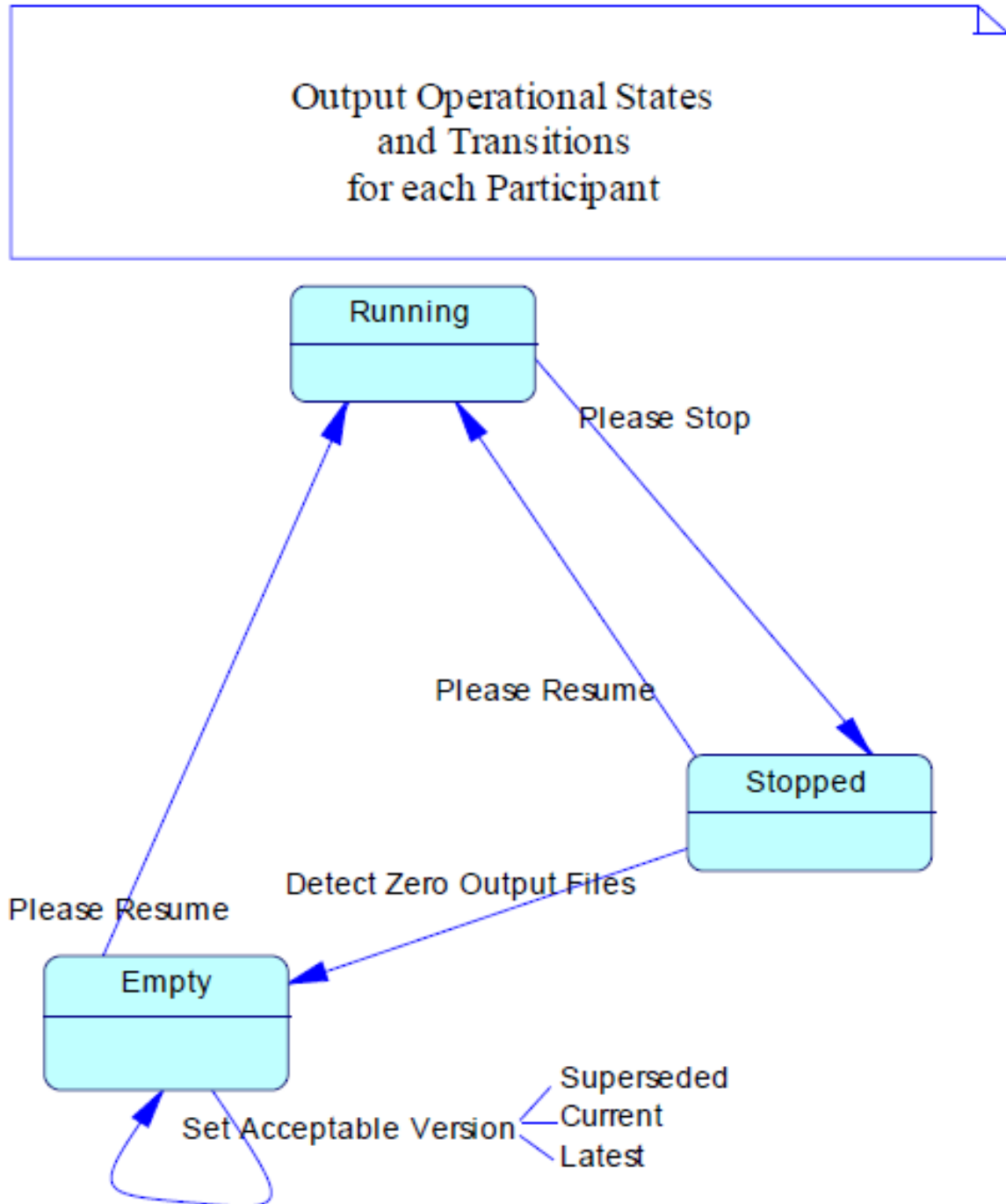
- Participants to control when to transition their systems from the superseded to the current version (CURRENT status), provided they transition before AEMO migrates to an even newer version.
- Participants to handle both the superseded and current version (LATEST status), so they can transition at the same time as AEMO and are always up to date.
- Participants to perform a clean transition by:
 - Stopping the creation of files.
 - Clearing the file backlog.
 - Transitioning to the new schema version.
 - Restart the sending of files.

Response to a version you cannot process

If you cannot process a transaction sent to you in a particular schema version, you can respond with a negative acknowledgement (a rejection).



Figure 1 Outbox states and transitions



Empty specifically means there are no MSATS output .ZIP files (excludes reference to acknowledgement files and B2B files).



Who can change the schema

Participants with access rights can change their B2M or B2B aseXML schema version in the Markets Portal > MSATS menu. For details, see [User rights access on page 4](#).

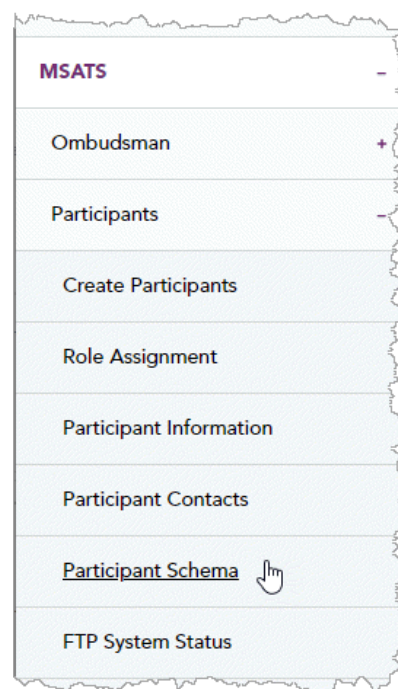
Accessing

1. Using your web browser, access one of the Markets Portal environments:
 - Pre-production: <https://portal.preprod.nemnet.net.au>
 - Production: <https://portal.prod.nemnet.net.au>
2. Sign in with the email and password provided by your Participant ID's PA.
3. Depending on the schema type, follow one of the steps below.

B2M schema change

Participant Users change the B2M schema in the Markets Portal > **MSATS** > **Participants** > **Participant Schema** menu.

For help using the Participant Schema interface, see [B2M aseXML Schema on page 14](#).

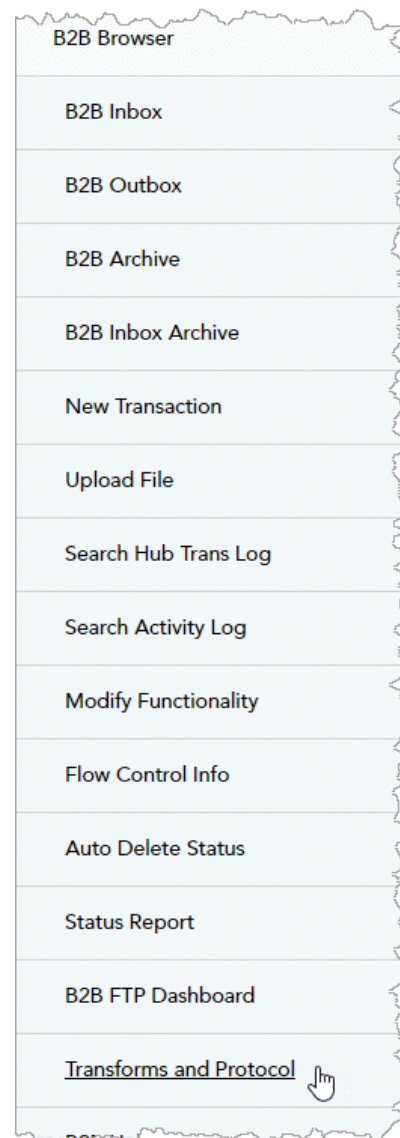





B2B schema change

Participant Users change the B2B schema in the Markets Portal > [MSATS](#) > [B2B Browser](#) > [B2B Transforms and Protocol](#).

For help using the Participant Schema interface, see [B2B aseXML Schema on page 35](#).



B2B Browser
B2B Inbox
B2B Outbox
B2B Archive
B2B Inbox Archive
New Transaction
Upload File
Search Hub Trans Log
Search Activity Log
Modify Functionality
Flow Control Info
Auto Delete Status
Status Report
B2B FTP Dashboard
<u>Transforms and Protocol</u> 



Transitioning

Basic steps to transition

Below are the basic steps for transitioning to a new B2B or B2M aseXML schema version:

1. Stop MSATS creating files for your Participant ID.
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.
4. Re-enable MSATS creating files, in your nominated aseXML schema version.

Transition timing

B2M schema transition timing

Schema updates for the MDMT transaction group take effect immediately.
Other transaction groups can take up to 24 hours to take effect.

B2B schema transition timing

B2B schema updates can take up to 24 hours to take effect.



B2M AseXML Schema

About the B2M aseXML schema

This is the Business to Market schema supporting **receiving** MSATS transaction groups, for example:

- Customer Administration and Transfers (CATS)
- NMI Discovery (NMID)
- Meter Data Management (MDMT)

For details about CATS transactions, see [CATS and WIGS Procedures](#).

The B2M transition feature is part of MSATS and applies only to retail electricity files received from MSATS. Participants receive data conforming to one of the B2M versions at any one time.

The B2M schema version the Participant ID is using and any applied transforms are displayed on the Participant Schema interface. When a new participant is set up, the default aseXML version is Current. Participants with access rights can change their B2M aseXML version in the Markets Portal.

The B2M transition feature does not affect or change the B2B sending or receipt of files.



Participant schema menu

The MSATS **Participant Schema** submenu is where you can:

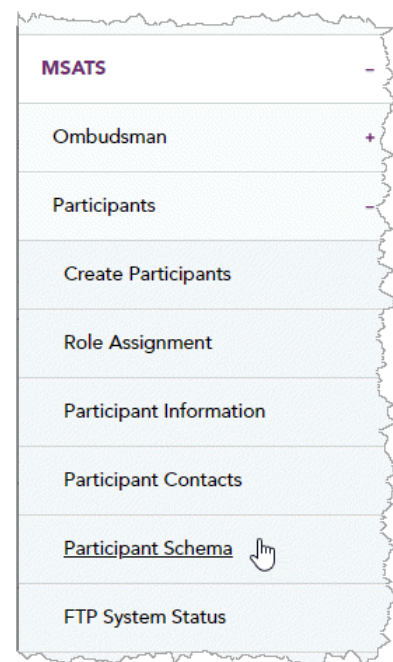
- View your B2M aseXML schema version.
- View the outbox status.
- Elect to stop the receiving of zip files.
- View the number of outstanding zip files.

The web portal allows participants with access rights to 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).

Providing the outbox is empty of all B2M files 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.





Understanding latest, current, and superseded status

Each participant sets their own status for receiving files, either: Latest, Current, or Superseded in the Markets Portal.

Participant aseXML Schema			Participant ID:	NEMMCO
			Participant Name:	Australian Energy Market Operator Limited
B2M transaction group	Receiving schema version	Receiving protocol		
CATS	LATEST	FTP		
NMID	LATEST	FTP		
MDMT	LATEST	FTP		
Outbox Status: STOPPED			3 zip files in outbox	
<input type="button" value="Please Resume"/> <input type="button" value="Refresh"/>				
Refresh: click to see number of outstanding zip files from AEMO and/or change of Outbox Status to Empty if Stopped				
Please Resume: click to resume receiving zip files from AEMO				
aseXML schema version	Transforms applied		Notes	
Superseded	r39_p1	r42 to r39_p1	Superseded aseXML schema version	
Current or Latest	r42	No transform	Current aseXML schema version	

Table 1 B2M schema status explained

Participant status	AEMO action for new release	Participant action prior to release	Participant receiving version after release
LATEST	<p>Moves you to the new schema version</p> <p>Sends you messages in the new schema version</p>	Transition to the new version	<p>CURRENT & SUPERSEDED</p> <p>The LATEST status is always compliant</p>
CURRENT	Moves you to SUPERSEDED	Choose when to transition to CURRENT	SUPERSEDED



Participant status	AEMO action for new release	Participant action prior to release	Participant receiving version after release
	Sends you messages in SUPERSEDED		
SUPERSEDED	Moves you to the new SUPERSEDED version Sends you messages in SUPERSEDED No longer supports the previous SUPERSEDED version	Transition to the new SUPERSEDED version Choose when to transition to CURRENT	SUPERSEDED

Dates for schema changes are communicated in [technical specifications](#).



What happens to my schema version during a B2M schema change?

This is an example only, the published schema versions will differ.

This scenario describes what happens to participants schema version before and after the release of a new B2M schema version. The new schema version is r35.

Participant status	Before release, participant supported version	After release, participant must support	Participant action before release
LATEST	r31 (CURRENT) r25 (SUPERSEDED)	r35 (CURRENT) r31 (SUPERSEDED)	Transition to r35
CURRENT	r31 (CURRENT)	r31 (SUPERSEDED)	No action Choose when to transition to r35
SUPERSEDED	r25 (SUPERSEDED - no longer supported)	r31 (SUPERSEDED)	Transition to r31 Choose when to transition to r35

B2M transition process

Transition

Participants can transition at a time independent of AEMO and independently of one another.



Schema updates for the MDMT transaction group take effect immediately.
Other transaction groups can take up to 24 hours to take effect.

Environments

AEMO transition

Participant
transition

The transition occurs in AEMO's pre-production systems prior to production, allowing for familiarisation and testing.

Current and latest status

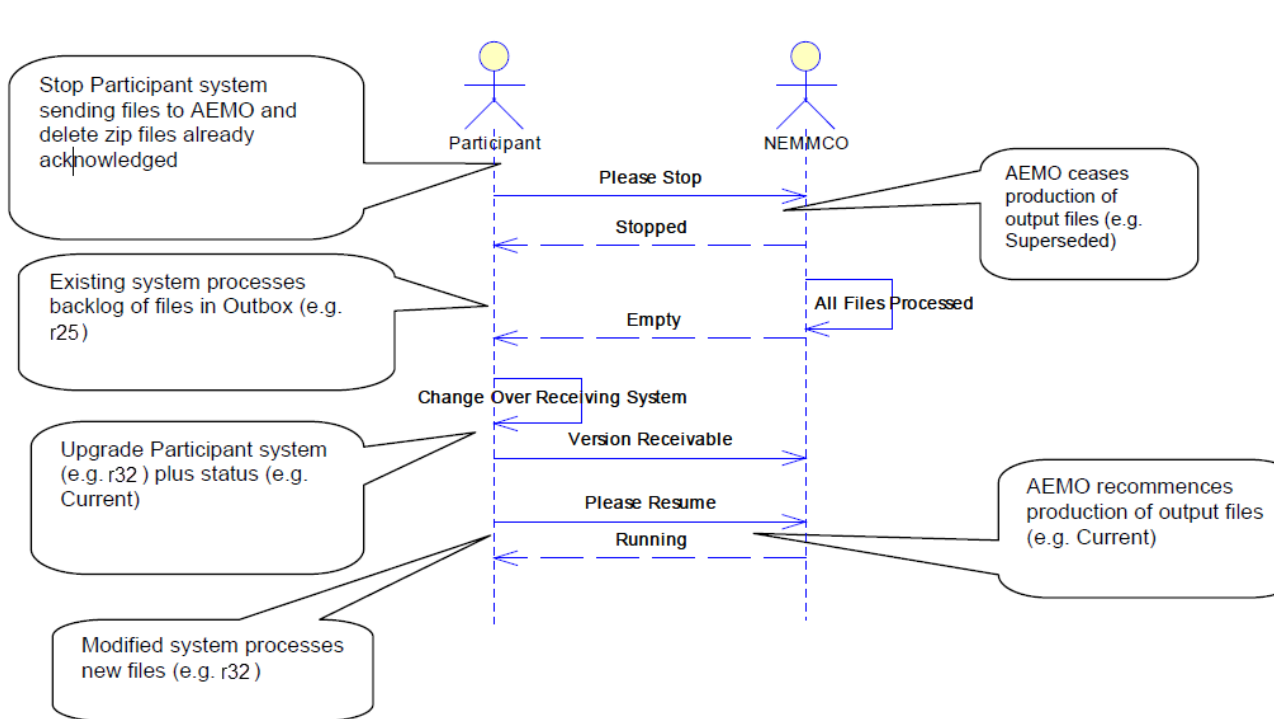
When AEMO implements a new schema, participants on the CURRENT or LATEST status see no change in their received files.

Superseded status

Participants on the superseded schema must upgrade to the new superseded version to continue receiving files.

All participants must transition off the superseded schema before the next schema release (about 6 months).

Transition process



For help viewing or changing your participant schema, see [Viewing your B2M schema on page 30](#).

AEMO transition

When AEMO makes the transition to a new schema, all the produced files conform to the new schema.

The process placing the output files into the file share for each participant checks which version of the aseXML schema the participant requires (Latest, Current or Superseded) and delivers files and acknowledgements accordingly.



If the participant needs files conforming to the Superseded schema, the process has the additional step of transforming the files from the Current schema to the Superseded schema before placing them on the Participant Server.

If the participant needs files conforming to the Current or Latest schema, no transformation is needed. Acknowledgements are directly generated to match the participant's chosen version of the aseXML schema.

When AEMO transforms files, the process adds a comment (or comments) to the file for AEMO use so we can handle all versions of aseXML. Normal aseXML processing ignores comments.

Participant transition

Which version of the schema applies for the files and acknowledgements a participant receives is dependent on their schema status: Latest, Current or Superseded.

So each participant can manage their own schema transition, they stop AEMO's creation of files so their system can process all files in the Participant File Server, then restart AEMO's file creation process after their receiving system is transitioned. This interaction is browser-based so it is independent of the file transfer system.

AEMO's acknowledgement process is not stopped when the MSATS output files are stopped. For participants to avoid having a mixture of superseded and current acknowledgement files (for example, both r36 and r25), they stop sending files to AEMO and delete the already-acknowledged .ZIP files in the inbox before stopping MSATS from producing files.

If the participant has selected Latest, the files and acknowledgements are delivered in the new schema (so the participant upgrades at the same time as AEMO).

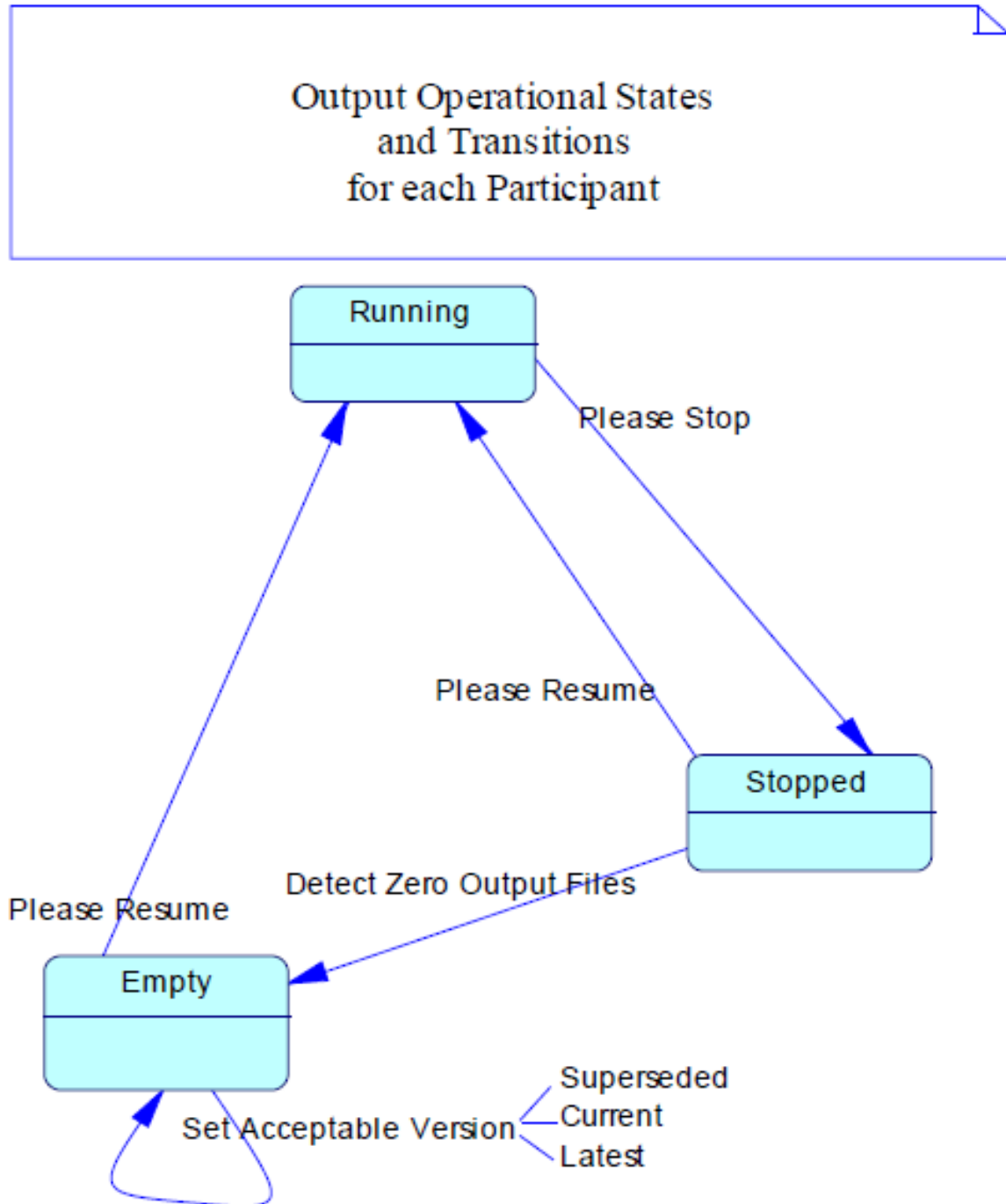


If the participant has selected Current, their status becomes Superseded and the files and acknowledgements sent to the participant conform to the old schema (so the participant sees no change in the version of the schema for the files they receive).

If the participant has selected Superseded, the files and acknowledgements sent to the participant conform to the old schema (so the participant has a change of schema forced on them as they were previously receiving an even older schema).



Figure 2 Outbox states and transitions



Empty specifically means there are no MSATS output .ZIP files (excludes reference to acknowledgement files and B2B files).



B2M transition scenarios

Normal changeover (Superseded to Current)

The participant sets up their new system ready to accept files conforming to the Current schema, with their existing system handling files conforming to the Superseded schema. The AEMO file-producing status is Running.

The participant:

1. Stops sending files to AEMO and deletes any .ZIP files already acknowledged from the inbox.
2. Using the web portal, requests stopping file production by AEMO.
3. Waits for their system to process all files in the file server. Using the web portal, participants can watch for the change of file-producing status to Empty.
4. Disconnects the superseded participant system and connects the current participant system.
5. Using the web portal, changes the schema from Superseded to Current.
6. Using the web portal, changes the file-producing status from Empty to Running.

Normal
changeover
(Superseded to
Current)

Reversion
changeover
(Current to
Superseded)

Normal
changeover
(Superseded to
Current)

Pre-emptive
changeover
(Current to
Latest)

Other
changeovers



7. Observes the correct processing of the participant current system.
8. Restarts sending files to AEMO.

Reversion changeover (Current to Superseded)

The participant decides to revert back to their superseded system, so has their system ready to accept files conforming to the Superseded schema, with their existing system handling files conforming to the Current schema. The file-producing status is Running.

The participant:

- Stops sending files to AEMO and deletes any .ZIP files already acknowledged from the inbox.
- Using the web portal, requests stopping file production by AEMO.
- Waits for their system to process all files in the file server. Using the web portal, the participant can watch for the change of file-producing status to Empty.
- Disconnects the current participant system and connects the superseded participant system.
- Using the web portal, changes the schema from Current to Superseded.
- Using the web portal, changes the file-producing status from Empty to Running.
- Observes the correct processing of the participant superseded system.
- Restarts sending files to AEMO.



Normal changeover fails (Superseded to Current, revert to Superseded)

The participant has set up their new system ready to accept files conforming to Current schema, with their existing system handling files conforming to Superseded schema. The file-producing status is Running.

The participant:

1. Stops sending files to AEMO and deletes any .ZIP files already acknowledged from the inbox.
2. Using the web portal, requests stopping file production by AEMO.
3. Waits for their system to process all files in the file share. Using the web portal, the participant can watch for the change of file-producing status to Empty.
4. Disconnects the superseded participant system and connects the current participant system.
5. Using the web portal, changes schema from Superseded to Current.
6. Using the web portal, changes file-producing status from Empty to Running.
7. Observes incorrect processing of the participant current system, so decides to immediately revert back to superseded system.
8. Disconnects the participant current system.
9. Using the web portal, requests stopping file production by AEMO.
10. Manually examines the file server, specifically identifying files needing to be manually removed.



11. Requests the AEMO Information and Support Hub to arrange for removal of the files from the participant's outbox with close co-ordination to ensure that no files are lost in the transition.
12. Using the web portal, participant can confirm the file-producing status is Empty.
13. Using the web portal, changes schema from Current back to Superseded.
14. Connects the superseded participant system.
15. Using the web portal, changes file-producing status from Empty to Running.
16. Observes correct processing of the participant superseded system, with the exception of any missed files (such as, files acknowledged by the participant current system). Unacknowledged files are recreated by AEMO system automatically, when found to not exist in the outbox.
17. Restarts sending files to AEMO.

In pre-production, effort is probably not usefully deployed in recovering the missed files; the effort needs to go into ensuring the proper operation of the current participant system. The participant recognises that the missed files conform to the Current schema, so can be converted to the Superseded schema using the transform that may be published by AEMO, by applying some skill and effort.

Given the likely extended time for non-creation of files in this scenario, and the risks associated with manual deletion of files, the participant needs to understand the importance of avoiding this scenario in a production environment.



Pre-emptive changeover (Current to Latest)

The participant has set up their new system ready to accept files conforming to the announced new schema as well as the Current schema, with their existing system handling files conforming to Current schema. The file-producing status is Running.

Simply disconnecting the existing system and connecting the new system is only partially effective, even if all the file-handling systems have automatic recovery and do not fail. A more controlled approach is as follows.

The participant:

1. Stops sending files to AEMO and deletes any .ZIP files already acknowledged from the inbox.
2. Using the web portal, requests stopping file production by AEMO.
3. Waits for their system to process all MSATS output files in the file server (outbox).
Using the web portal, the participant can watch for the change of file-producing status to Empty (by clicking Refresh).
4. Disconnects the current participant system and connects the current-plus-future participant system.
5. Using the web portal, changes schema from Current to Latest.
6. Using the web portal, changes file-producing status from Empty to Running.
7. Observes the correct processing of the participant current-plus-future system.
8. Restarts sending files to AEMO.

Other changeovers

Other changeovers are minor variations of the above scenarios.



If a participant chooses the Latest status, the participant is responsible to ensure that their system can receive the next version announced by AEMO as being scheduled for the next schema upgrade. Once AEMO makes that upgrade, the status remains at Latest, so the participant needs to review their system's capability and monitor for any announced schema changes to be sure they are really ahead of AEMO. Simply disconnecting the existing system and connecting the new system may be effective, if all the file-handling systems have automatic recovery, since there is no need to change the status at AEMO. Alternatively, use a similar process to the pre-emptive changeover (by leaving out the step to change the schema using the web portal).

B2M transition example

In this imagined example:

- Current is r32
- Superseded is r25
- AEMO has announced an upgrade to r36.

Pre-upgrade status

Before the imagined upgrade, participants file receiving status is:

Latest Some participants can handle Latest r25 and r32

Current Most participants have their systems set to Current r32

Pre-upgrade
status

Transform
process

B2M transition
example



Superseded One participant has not yet upgraded and has their status set to Superseded r25

Transform process

On the day of the imagined upgrade, AEMO puts the following processes in place for each participant status:

Participant status	Transform	Post-upgrade status
Latest	There is no change to participants	r36
Current	All participants with current status are automatically transformed to Superseded status	r36
Superseded	For the participant with the Superseded status r25, output is transformed to be compatible. r25 is now unsupported and this participant has around 6 months to upgrade to the current version	r32

Viewing your B2M schema

1. On the main menu, click [Participants](#) and then click [Participant Schema](#)
2. The Participant aseXML Schema screen displays with your current [aseXML Version](#), and your [Outbox Status](#). From this screen you can do one of the following:
 - a. Stop receiving zip files from AEMO, click [Please Stop](#). Your outbox must be empty to change the aseXML version.

- b. See the number of outstanding zip files available from AEMO, click **Refresh**.
- c. See if the **Outbox Status** is empty (0 files in outbox).

The screenshot shows the 'Participant aseXML Schema' interface for Participant ID: NEMMCO and Participant Name: Australian Energy Market Operator Limited. The interface includes a sidebar with navigation links: Home, EMMS, MSATS, Ombudsman, Participants, Create Participants, Role Assignment, Participant Information, Participant Contacts, and **Participant Schema** (highlighted with a purple circle and the number 1). The main content area is titled 'Participant aseXML Schema' and contains the following elements:

- A table with 3 columns: B2M transaction group, Receiving schema version, and Receiving protocol. The rows are: CATS (LATEST, FTP), NMID (LATEST, FTP), and MDMT (LATEST, FTP).
- Outbox Status: RUNNING, 3 zip files in outbox.
- Buttons: Please Stop (a), Refresh (b), and a button labeled c.
- Refresh: click to see number of outstanding zip files from AEMO and/or change of Outbox Status to Empty if Stopped
- Please Stop: click to stop receiving of zip files from AEMO so you can change aseXML Version when Empty
- A table with 3 columns: aseXML schema version, Transforms applied, and Notes. The rows are: Superseded (r39_p1, r42 to r39_p1, Superseded aseXML schema version) and Current or Latest (r42, No transform, Current aseXML schema version).

Changing your B2M schema

The following instructions assist participants to change the B2M aseXML schema version for a Participant ID. The schema version the Participant ID is using and any applied transforms are displayed on the Participant Schema interface.

The acknowledgement process is not stopped when the 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.



To change your participant schema version:

1. In the Markets Portal menu, click **Participants** and then click **Participant Schema**.
Information relating to your participant ID displays for the choice of **aseXML Version** and **Outbox Status**.
2. To stop the output of files, click **Please Stop**.

Participant aseXML Schema		Participant ID:	NEMMCO
		Participant Name:	Australian Energy Market Operator Limited
B2M transaction group	Receiving schema version	Receiving protocol	
CATS	LATEST	FTP	
NMID	LATEST	FTP	
MDMT	LATEST	FTP	
Outbox Status: RUNNING		3 zip files in outbox	
<div> <div>Please Stop</div> <div>Refresh</div> </div>			
Refresh: click to see number of outstanding zip files from AEMO and/or change of Outbox Status to Empty if Stopped			
Please Stop: click to stop receiving of zip files from AEMO so you can change aseXML Version when Empty			
aseXML schema version	Transforms applied		Notes
Superseded	r39_p1	r42 to r39_p1	Superseded aseXML schema version
Current or Latest	r42	No transform	Current aseXML schema version

3. The stopped message appears, click **Return to "Participant aseXML Schema" screen**.

File generation to the outbox has been stopped.
Return to "Participant aseXML Schema" screen.



4. The **Please Stop** button is 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).
5. The **aseXML version** drop-down becomes active, click the drop-down arrow and select your new version from the list.

Note: Ensure your participant system is ready to receive files conforming to your chosen schema.

6. Click the **Please Resume** button.

Participant aseXML Schema		Participant ID:	NEMMCO
		Participant Name:	Australian Energy Market Operator Limited
B2M transaction group	Receiving schema version	Receiving protocol	
CATS	LATEST	FTP	
NMID	LATEST	FTP	
MDMT	LATEST	FTP	
Outbox Status: STOPPED		3 zip files in outbox	
<input type="button" value="Please Resume"/> <input type="button" value="Refresh"/>			
Refresh: click to see number of outstanding zip files from AEMO and/or change of Outbox Status to Empty if Stopped			
Please Resume: click to resume receiving zip files from AEMO			
aseXML schema version	Transforms applied		Notes
Superseded	r39_p1	r42 to r39_p1	Superseded aseXML schema version
Current or Latest	r42	No transform	Current aseXML schema version

7. The resumed message appears, click [Return to "Participant aseXML Schema" screen](#). Your aseXML version is changed and files are produced in the nominated schema version.



File generation to the outbox has been resumed.
Return to "Participant aseXML Schema" screen.



B2B AseXML Schema

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About the B2B aseXML schema

This is the Business-to-Business schema that supports **sending and receiving** B2B transactions, for example:

- Customer and Site Details (CUST)
- Meter Data Process (MTRD)
- One Way Notification (OWNP)



- Site Access (SITE)
- Service Order (SORD)

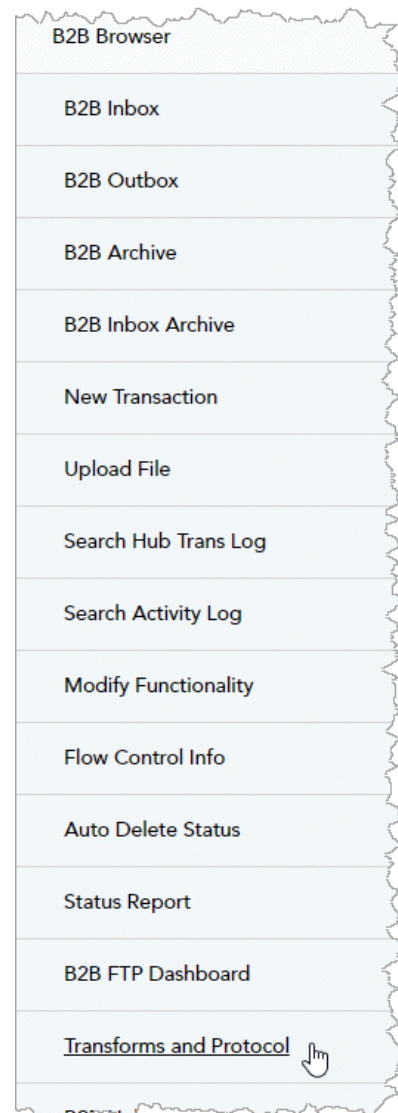
For details about B2B transactions, **B2B Procedures**.

Transforms and Protocols menu

The B2B Browser **Transforms and Protocols** submenu is where you can:

- Change your B2B schema version for B2B transaction groups such as:
- Change your sending and receiving protocol preference to API or FTP.

For information about the technical specifications for the delivery of B2B Transactions using the e-Hub API Gateway, see Shared Market Protocol Technical Guide.





About transforms

AEMO applies an XML transform to change the schema release of participant-selected transaction types, including their acknowledgements.

Only the transaction types supported in both the currently supported and immediately superseded schema releases are available for selection.

[About transforms](#)[About protocols](#)[B2B schema user rights access](#)

B2B transforms only occur between the current and superseded versions. For example, if the current B2B schema is r41 and you are on the superseded B2B schema r38 then transforms are available. If you are on a non-supported version of the B2B schema then no transforms are available and the transaction is delivered in the version it was sent.

B2B transaction types and groups

Versioning of the transaction types and the aseXML schema are different, although related. Each aseXML release has a unique namespace identifier, for example:

```
xmlns="urn:aseXML:r25".
```



The part after the second colon in the namespace identifier is used as an abbreviation of the aseXML schema namespace identifier, since that is the part that changes from one release of aseXML schema to the next. By convention, transaction types use the abbreviation of the aseXML schema identifier when the transaction type definition last changed as the version identifier of that transaction type. This means the two identifiers are related, look the same, and both can be called a “version”. So, the meaning of the abbreviation (such as “r25”) depends upon its context, and it is possible to easily misinterpret the context due to the relationship. Similarly, the word “version” may refer to the transaction type version attribute or to the aseXML namespace identifier abbreviation, depending upon context. Processing XML files (including transforming) requires clear handling of the namespace, so the **B2B Transforms** menu has the aseXML schema releases as its primary context, and the transaction types are used to partition the transitioning process (if desired).

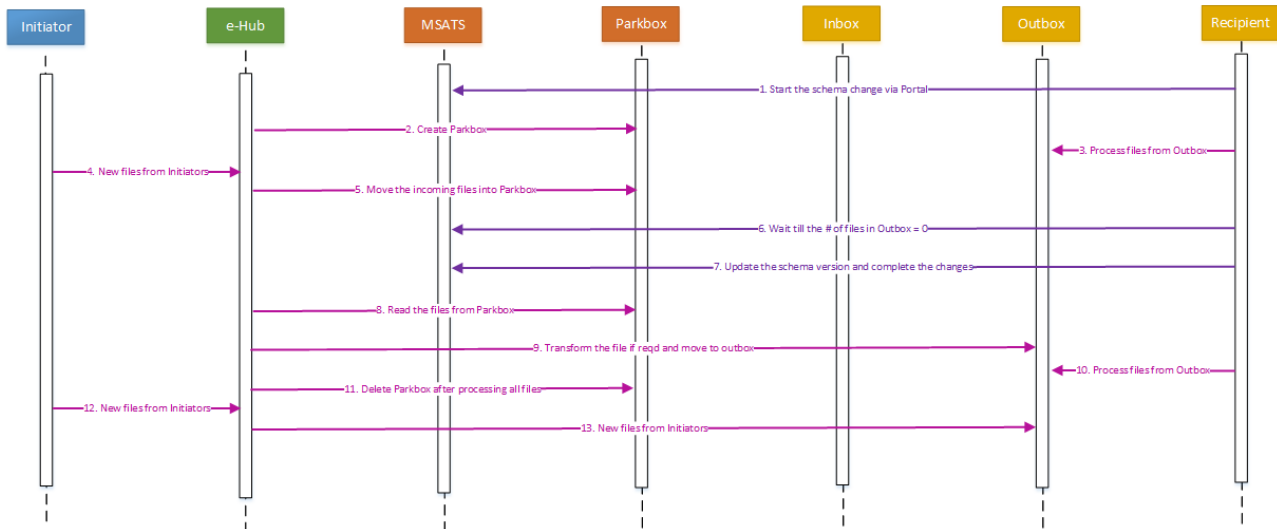
The ability to transition one B2B transaction group at a time allows progressive implementation of the changeover from one B2B aseXML schema release to the next supported release .

Making the transition from receiving in one release of aseXML to another requires reducing activity to zero, to achieve a clean changeover. Doing nothing for an extended time hampers the flow of B2B business between participants, so a time-limit is imposed for the transition. To prevent an excessive backlog of files to catch up, a maximum is set for the count of .zip files held back from processing during the transition before the changeover is either completed or cancelled.

During the transition time, a temporary holding folder in each participant’s B2B folder, called “parkbox”, holds the files sent by other participants. When the transition between aseXML releases completes, the files in the holding folder are copied or transformed into the outbox and deleted after processing.



Figure 3 B2B schema change process



About protocols

Protocols determine the delivery method for sending and receiving B2B transactions. The B2B e-Hub supports two protocols:

1. **API:** Provides B2B communication options using web services or using direct connections from a compatible participant gateway. API is accessible over the internet or MarketNet.
2. **FTP:** AEMO systems to participant systems interaction using batch processing, suitable for participant systems using database technology and submission or receipt of high volumes of data.

Participants can set different protocols for different Transaction Groups but the protocol must be the same within a Transaction Group. For example, for a SORD transaction you cannot send in FTP and receive in API.



Stop files

When the number of unacknowledged outbound files in your Participant Outbox exceeds the upper or lower limit, a Stop File is imposed on your Participant Outbox Transactions. Once imposed no more processing on inbound or outbound Transactions occurs until the file numbers fall below the Lower Limit.


For more details about stop files, see [Transaction Limits in Technical Guide to MSATS](#).

Checking the B2B stopfile

To check for the presence of a B2B stopfile in your B2B Outbox:

1. [Access B2B transforms and protocols](#). For help, see [B2B schema change on page 12](#).
2. If a stopfile is present the message below displays asking you to acknowledge the B2B zip files in your outbox. It must be empty for the transition to complete. For help, see [Technical Guide to MSATS](#).
3. If a stopfile is present, clear the outbox.
4. Click [Refresh](#) to check if the stopfile is cleared. If yes, the [B2B Transforms and Protocols](#) interface displays.

B2B Transforms	
Participant ID:	NEMMCO
Participant Name:	Australian Energy Market Operator Limited



You are stopped for B2B file input.
Please acknowledge your B2B zip files and then click refresh to complete your schema version change.

Unless you have placed the stopfile yourself, a stopped status indicates you are stopped from participating in the market. You cannot make any changes to your protocol preference or receiving schema until you clear the stopfile. For more details, see [Technical Guide to MSATS](#).

B2B schema versions

The B2B e-Hub supports all aseXML schema versions so you can send any B2B file in any published schema version, not just current or superseded. If sending participants use a B2B schema other than current or superseded they must have an agreement in place with the receiving participant so the file is not rejected.

If the recipient cannot process a particular schema version, the recipient must respond to the file with a negative acknowledgement (a rejection).



B2B schema status

Each participant sets their own status for receiving files, either: Current or r_any.

Table 2 B2B schema status explained

Status	Description
Current	Send and receive files compliant to the current B2B aseXML version
r_any	Send and receive files in any supported B2B aseXML version r_any is a status, not a schema version. It means you receive files in the version they were sent with no transformation.

What happens during a B2B schema change?

This table is an example only, the published schema versions will differ.

In this scenario AEMO has announced a new B2B schema version, r36 is available after the release implementation.


Participant version before release	What happens	Participant version after release
r35	Participants transform to the new schema version.	r36
r_any	AEMO transforms participants on r_any to the current schema version but they can send and receive in any supported schema version.	r_any



Access B2B transforms and protocols

The B2M transition feature does not affect or change the B2B sending or receipt of files.

View your B2B schema

B2B Browser
B2B Inbox
B2B Outbox
B2B Archive
B2B Inbox Archive
New Transaction
Upload File
Search Hub Trans Log
Search Activity Log
Modify Functionality
Flow Control Info
Auto Delete Status
Status Report
B2B FTP Dashboard
<u>Transforms and Protocol</u> 



1. On the main menu, click **B2B Browser** and then click **Transforms and Protocol**.
2. The **B2B Transforms and Protocol** interface displays.
If a B2B stopfile is in place you see an error. For help, see [Checking the B2B stopfile on page 40](#).

Nominating B2B transforms

Participants have 30 minutes to complete a B2B Transforms change.

To nominate a new B2B transform for one or more B2B transaction types (for both the transaction and its acknowledgement):

1. [Access B2B transforms and protocols](#). For help, see page [Page 43](#).
2. Click the drop-down arrows under **Change to version** and select the schema release you are going to handle for each required **B2B transaction group**. For help, see [Figure 4 on the next page](#).

r_any means you can receive in any available **Receiving schema version**.
3. Click **Refresh** to check if you are stopped for B2B file input and if not click **Start change**.
4. Continue clicking **Refresh** until the file count is zero (0) for all files.
5. When the total file count is zero, **Complete change** activates, do one of the following:
 - a. To complete the transform, click **Complete change**.

- b. To abandon the transform, click **Cancel change**. Abandoning the change is only possible if you have not already completed the change. If **Cancel change** is not activated (that is, is greyed out) then you have either, already completed the change, or the change is cancelled.

Figure 4 Nominate B2B schema version

B2B Transforms and Protocol

Participant ID: NEMMCO

Participant Name: Australian Energy Market Operator Limited

You have 0 B2B .ZIP files parked out of the allowed 480.

You have 30 minutes to complete your change.

B2B transaction group	Receiving schema version	Change to version	Receiving protocol	Change to Protocol	Outbox		Hub Queue		Parked	
					Messages	ACKS	Messages	ACKS	Messages	ACKS
MTRD	r36	r36	FTP	FTP ▼	0	0	0	0	0	0
SORD	r36	r36	FTP	FTP ▼	0	0	0	0	0	0
MRSR	r36	r_any	FTP	FTP ▼	0	0	0	0	0	0
CUST	r36	r36	FTP	FTP ▼	0	0	0	0	0	0
SITE	r36	r36	FTP	FTP ▼	1	0	0	0	0	0
OWNP	r36	r36	FTP	FTP ▼	0	0	0	0	0	0
OWNX	r36	r36	FTP	FTP ▼	0	0	0	0	0	0
NPNX	r36	r36	FTP	FTP ▼	0	0	0	0	0	0
P2PE	r36	r36	FTP	FTP ▼	0	0	0	0	0	0

Start change

Cancel change

Refresh

Complete change

Receiving schema version

Transforms applied

r36

r35 to r36

r36

r34 to r36

The complete change button remains inactive until the file count is zero.

r_any is not a schema version. It means you receive files in the version they were sent with no transformation.

FAQs

How long does it take for my schema change to take effect?

See [Transition timing on page 13](#)

How do I know which version is the latest and superseded?

See [Schema versions on page 7](#).

Do I have to upgrade my schema?

Yes, if you want to use the functionality in the new schema version. The technical specification details the new functionality.

Otherwise you can ignore the upgrade remembering AEMO only support the Latest and Superseded versions.

How will I know when there is a new aseXML schema?

Dates and information about schema changes are communicated in [technical specifications](#).

What happens during a B2M schema change?

See [Understanding latest, current, and superseded status on page 16](#).



How many aseXML versions does AEMO support?

AEMO only supports one current and one superseded version of the B2M and B2B aseXML schemas.

What happens during a B2B schema change?

See [B2B schema versions on page 41](#).

What happens if I can't process a transaction?

If you cannot process a transaction sent to you in a particular schema version, you can respond with a negative acknowledgement (a rejection).

Are transforms available or applied between the B2M and B2B schemas?

No transforms are available or applied between the B2M and B2B schemas

When do B2B transforms occur?

B2B transforms only occur between the current and superseded versions. For example, if the current B2B schema is r41 and you are on the superseded B2B schema r38 then transforms are available. If you are on a non-supported version of the B2B schema then no transforms are available and the transaction is delivered in the version it was sent.

What does r_any mean?



r_any is not a schema version. It means you receive files in the version they were sent with no transformation.

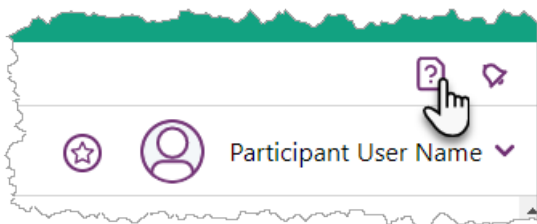


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Finding online help

To access online help for the aseXML Transition, click [Help](#) in the top-right of the Markets Portal.





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.

Information to provide

Please provide the following information when requesting Support Hub assistance:

- The resolver group to direct your ticket to. You can find this information in the **Need to Know** section of the application's online help or the **Needing Help** section of the pdf guide.
- Your contact details
- Company name
- Company ID
- System or application name
- Environment: production or pre-production
- Problem description
- Screenshots



For AEMO software-related issues please also provide:

- Participant ID (if Data Interchange (DI) problem)
- Version of software
- Properties or log files
- PDR Monitor support dump and DI instance name (if DI problem)

Support hub resolver group

If you contact [AEMO's Support Hub](#) for support about aseXML Transition ask them to direct your ticket to one of the following resolver groups:

- Business: Metering
- IT: Retail System Support

MSUG meetings

The Market Systems User Group (MSUG) is an industry user group established to discuss NEM wholesale and retail IT systems releases. Its purpose is to facilitate the continuing improvement of AEMO's IT systems by seeking feedback and collaboration from participants.

It is open to all interested parties, with invitations sent to all Registered Participants. If you have a technical question and want to attend the MSUG, so you get an invite, ask your company's support team to include your email address in their AEMO Help Desk Bulletin (CRM).



Supported web browsers

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

The portal runs on both Windows and Unix-like operating systems. AEMO recommends the following web browsers:

Browser	Platform	Current	More information
Microsoft Internet Explorer	Windows	IE11	What is the latest version of IE?
Microsoft Edge (Microsoft recommended)	Windows 10	Edge	What is the latest version of Edge?
Google Chrome (AEMO recommended)	All platforms	Latest	What is the latest version of Google Chrome?

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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Rules and procedure terms

You can find the following terms defined in the relevant [Energy rules](#) and procedures.

AEMO	ii
Registered Participants	2
Time	2

Glossary

For a list of terms used throughout this guide, see:

- **Retail Electricity Market Procedures - Glossary and Framework**
- [Industry terminology](#) on AEMO's website.



References

You can find resources mentioned throughout this guide on AEMO's website:

www.aemo.com.au.

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