

# MSATS 46.89 TECHNICAL SPECIFICATION - DECEMBER 2017

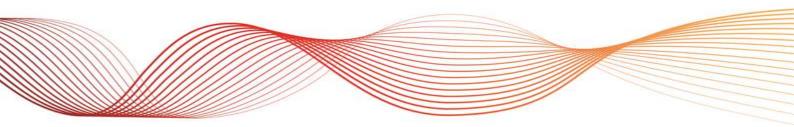
## AEMO RELEASE SCHEDULE SERIES: MSATS1217SMP



Published	14 August 2017	Version 1.01	Power of Choice - Shared Market Protocol
Schedule	Pre-production:	Wednesday 16 Au	gust 2017

Production

Friday 1 December 2017 B2B schema r36 released







## **IMPORTANT NOTICE**

#### Purpose & audience

This document describes the technical changes required to participant's systems for the MSATS 46.89 Release -December 2017 (Release). The Australian Energy Market Operator (AEMO) provides this information as a service targeting business analysts and IT staff in participant organisations. It provides guidance about the changes to their market systems under the National Gas or Electricity Rules (Rules), as at the date of publication.

#### How to use this document

- If you have questions about the business aspects of these changes, please see Consultations on AEMO's website.
- The references listed throughout this document are primary resources and take precedence over this document.
- Text in this format indicates a reference to a document on AEMO's website.
- This document is written in plain language for easy reading. Where there is a discrepancy between the Rules, and information or a term in this document, the Rules take precedence.
- Italicised terms are defined in the National Electricity Rules. Any rules terms not in this format still have the same meaning.
- Capitalised terms are defined in the Glossary. Any terms not in this format still have the same meaning. For an explanation of abbreviations or special terms, see Glossary on page 69.
- Actions to complete in the Web Portal interface are bold and dark blue.

#### **AEMO reference numbers**

Included in each project heading is a Quality Centre Identifier (QCID) that provides useful tracking information. There may be none, one, or more QCIDs relevant to each project heading.

References to change notices are CN followed by the change notice number.

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#### Distribution

Available to the public.

#### **Document Identification**

Version: 1.01 Prepared by: AEMO Market Systems Last update: Monday, 14 August 2017 10:04 AM

#### Documents made obsolete

The release of this document changes only the version of MSATS 46.89 Technical Specification - December 2017.

#### **Further Information**

For further information, please visit AEMO's website www.aemo.com.au or contact:

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## CONTENTS

1	B2B E	Enhancements1
	1.1	New B2B aseXML schema2
	1.2	Validation Module Software5
	1.3	Participant Batcher Software
	1.4	SMP and eHub6
	1.5	Create New Transactions
	1.6	Service Order Transactions
	1.7	MSATS web portal menu 45
	1.8	B2B Upload File
	1.9	Search Hub Transaction Log
	1.10	Participant System Status
	1.11	B2B Hub Queue
	1.12	B2B Hub Dashboard
	1.13	B2B Toggle Modify Functionality
	1.14	B2B Transforms
	1.15	B2B Responder
	1.16	B2B e-Hub Self-Accreditation61
	1.17	MSATS B2B Batch Handlers
	1.18	SQL patterns
2	Basel	ine assumptions
	2.1	Software
	2.2	aseXML schemas
	2.3	B2B transforms
	2.4	Web Services schemas 67
	2.5	Procedures
3	Imple	mentation
	3.1	Approval or agreement to change
	3.2	Transitioning
	3.3	Implications
	3.4	Risks
	3.5	Upgrade options





4	Relate	d Resources6	9
5	Glossa	ıry7	0
Appei	ndix A	B2B Validation Module	.0
Appei	ndix B	Guide to B2B e-Hub Self Accreditation	.1



## 1 B2B ENHANCEMENTS

The Market Settlement and Transfer Solution, MSATS 46.89 Release - December 2017 (Release) includes changes related to participants' IT systems. This technical specification describes the Power of Choice (POC) SMP enhancements covering the B2B services planned by AEMO from a participant perspective. AEMO provides this information as a service targeting business analysts and IT staff in participant companies.

## **Project List**

The MSATS 46.89 Technical Specification - December 2017 includes enhancements for the Power of Choice (PoC) implementation program - Shared Market Protocol (SMP).

1.1	New B2B aseXML schema
1.2	Validation Module Software5
1.3	Participant Batcher Software
1.4	SMP and eHub6
1.5	Create New Transactions7
1.6	Service Order Transactions
1.7	MSATS web portal menu 45
1.8	B2B Upload File 46
1.9	Search Hub Transaction Log
1.10	Participant System Status
1.11	B2B Hub Queue
1.12	B2B Hub Dashboard
1.13	B2B Toggle Modify Functionality
1.14	B2B Transforms
1.15	B2B Responder
1.16	B2B e-Hub Self-Accreditation
1.17	MSATS B2B Batch Handlers
1.18	SQL patterns



## 1.1 New B2B aseXML schema

#### 1.1.1 Overview

As part of the B2B Framework rule changes and the supporting B2B Procedures, this Release introduces a new B2B aseXML schema: r36.

This technical specification explains the new B2B aseXML schema r36. For details about the B2M aseXML schema r35, see the MSATS 46.88 Technical Specification – December 2017 Embedded Networks.

#### 1.1.2 B2B aseXML schema change summary

Below is a summary of the changes in the B2B aseXML schema r36.

#### Legend

- Modified types: A full list of changed types.
- **Derived types**: A list of any types derived from a modified type and therefore modified by default.
- Versioned types affected: A list of all versioned types requiring the version attribute updated.
- **Transactions potentially affected**: A list of all transactions containing a modified type, either directly or using a type substitution.
- Schema files affected: A list of schema files changed in some way for this schema.

Modified types	Derived types	Versioned types affected	Transactions potentially affected	Schema files affected
				aseXML_r34.xsd
				Events_r34.xsd



Modified types	Derived types	Versioned types affected	Transactions potentially affected	Schema files affected
ServiceOrderType ServiceOrderSubTyp e ElectricityMeter ElectricityServiceOrd erDetails ElectricityMeterRegi sterDetail	Electric ityMet er Electric ityMet ers	ElectricityStand ingData ServiceOrderRe questData	NMIDiscoveryResponse NMIStandingDataResp onse CATSChangeRequest CATSNotification CATSDataRequest ServiceOrderResponse AmendMeterRouteDet ails AccountCreationNotific ation MeterReadInputNotific ation SpecialReadRequest SpecialReadResponse NMIStandingDataUpda teNotification CATSBulkDataRequest MeterReadingReferenc eDataResponse	Electricity_r36.xsd
ElectricityMasterSta ndingData		ElectricityStand ingData	MeterDataVerifyReque st MeterDataMissingNotif ication NMIStandingDataResp onse NMIDiscoveryResponse CATSChangeRequest CATSNotification CATSDataRequest ReplicationNotification ReportResponse	ElectricityMasterSta ndingData.xsd
ServiceOrderRequest ServiceOrderRespon se			ServiceOrderRequest ServiceOrderResponse SpecialReadRequest SpecialReadResponse	ServiceOrder_r36.xs d



Modified types	Derived types	Versioned types affected	Transactions potentially affected	Schema files affected
CustomerDetail		GasServiceOrd erDetails	ServiceOrderRequest ServiceOrderResponse CustomerDetailsNotific ation	CustomerDetails_r3 6.xsd

For full details about the changes in the B2B aseXML schema r36, see the Schema Release Notes Error! Unknown document property name. on AEMO's website>Electricity>IT Systems>aseXML Standards.

## 1.1.3 What to do before pre-production

AEMO recommends participants on B2B aseXML schema versions preceding r32 transition to r32 before the pre-production date Wednesday 16 August 2017.

## **1.1.4** Part 2 – Production implementation

The new aseXML B2B schema r36 and the B2B procedures version 3.00 become active. After deployment of the production release, Friday 1 December 2017, AEMO expects participants to send B2B Messages using the B2B schema r36.

Participants can still send previous schema versions and MSATS will deliver them but they will not align with the B2B procedures v3.00 (effective 1 December 2017).

Transitioning is part of AEMO's POC transition and cutover activities. There is no action required from participants in the B2B Transform interface, from the production release participants' B2B schema is automatically set to r36.

### 1.1.5 What to do after production implementation

After deployment of the production release, Friday 1 December 2017, AEMO expects participants to send B2B messages using B2B schema r36.

Participants can still send previous schema versions and MSATS will deliver them untransformed but they will not align with the B2B procedures v3.00 (effective 1 December 2017).

For this Release only, AEMO does not support transforms from the current schema r32 to the new schema r36.

To obtain schemas, guidelines, whitepapers etc, see aseXML Standards on AEMO's website>IT Systems.





## 1.1.6 Impacts of not upgrading to B2B aseXML schema r36

Participants not upgraded by Friday 1 December 2017, risk not being able to transact with other participants complying with the B2B Procedures v3.00 and the B2B aseXML schema r36.

### 1.1.7 B2B aseXML schema change time frames

Phase	Date	Event
Pre- production	Wednesday 16 August 2017	After the release on this day participants on B2B aseXML schema versions preceding r36 should transition to r36.
Production	Friday 1 December 2017	Shared Market Protocol (SMP) changes including r36 released
		AEMO transitions all participants to the B2B schema r36. There is no action required from participants in the B2B Transform interface.
		The new aseXML B2B schema r36 and the B2B procedures version 3.00 become active.
		AEMO expects participants to send B2B Messages using the B2B schema r36.
		Participants can still send previous schema versions and MSATS will deliver them but they will not align with the new B2B procedures v3.00 (effective 1 December 2017).
		For details about MSATS 46.88 Release (EN/MC), see AEMO's website>IT Systems>IT Change and Release Management.

## **1.2 Validation Module Software**

The Validation Module software changes to support the new B2B aseXML schema.

At implementation time, participants can download the new Validation Module software version 1.0.26 from the Electricity Retail and Metering section of AEMO's website. The package contains full details of the changes.

For more details about Service Order transaction validations, see the spreadsheet attached to this document.





## **1.3 Participant Batcher Software**

The Participant Batcher properties file is modified as follows:

- The file types property includes the new B2B transaction groups: MRSR, OWNX, NPNX, PTPE.
- The aseXML schema namespace and location for the generated acknowledgement property supports the new schema r36.

At implementation time, participants can download the new Participant Batcher software version 2.10, supporting the new B2B aseXML schema r36, from the Retail and Metering section of AEMO's website.

## 1.4 SMP and eHub

AEMO's e-Hub is extended as part of the Shared Market Protocol (SMP) project, adding a new B2B web service framework. The AEMC's rule development process drives the requirements for these changes.

For more information about the B2B Framework rule changes, see Updating the B2B Framework Rule Change on the AEMC website.

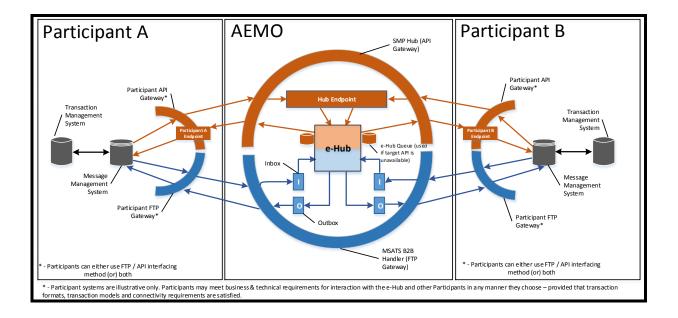
The *B2B e-Hub* allows participants to send and receive B2B messages and acknowledgements in their chosen protocol (FTP or API), irrespective of the sender or receiver's chosen protocol. This works by incorporating the existing MSATS B2B Browser and MSATS B2B Batch Handlers (using the FTP Hokey-pokey Protocol) with the new e-Hub APIs.

The B2B e-Hub consist of:

- 1. The MSATS B2B Browser.
- 2. The **MSATS B2B Batch Handlers** using the existing FTP Hokey-pokey Protocol.
- 3. The new e-Hub API Platform, containing:
  - a. The **e-Hub API Gateway** where participants can use web service API's for sending and receiving electricity retail B2B transactions. The gateway supports interoperability with the existing FTP Hokey-pokey Protocol.
  - b. The **e-Hub API Portal** where registered participants can discover API's and obtain their API keys.

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





## **1.5 Create New Transactions**

The following changes exist in the existing Create New Transaction interface:

- 1. The recipient's role displays in the **To** drop-down field, filtered by eligible roles for the transaction type: LNSP, FRMP, LR, RP, ROLR.
- 2. A new Notified Party **To** drop-down field is added, filtered by eligible roles for the transaction type, currently Service Order Request.
- 3. Message creation integrates with the B2B e-Hub.
- 4. Changes to the Transaction Type drop-down list.
- 5. Changes to the Transaction Subtypes.



Create New Transaction		Existing Screen	Participant ID: NEMMCO Participant Name: Australian Energy Narket
reate New Transaction			
ramation Type (*):			
Create	Service Order Supply Service Works	Allocate NMI	and a second
	Service Order Metering Service Works	Supply Abolishment Supply Alteration	New drop down box
	Service Order Re-energisation	Tarff Change	that displays 50 sub
	Service Order De-energisation	Establish Temporary Supply	types for the SO type solected.
		Establish Temporary in Permanent	Contraction of the second seco
Options for Service	Service Order Special Read	Establish Permanent Supply	
Order Types changed	Service Order Miscellaneous	Temporary Isolation	
	Service Order Cancel	Temporary isolation-Group Supply	
	Customer Details NotiFication		
	Site Access Request		
	Site Access Notification		
	Provide Meter Data Request		
	Verify Meter Data Request		
	Remote Service Request		
	Remote Service Response		
	One Way Notification		
	Planned Interruption Notification		
	Meter Fault and issue Notification		
	Notice Of Metering Works		
	Notified Party		

## 1.5.1 B2B Transactions summary

To reflect the changes in the new aseXML B2B schema r36 and the differences between the existing FTP Hokey-pokey Protocol and the new API Web Services Protocol, there are changes to some existing B2B Transaction interfaces and some new transaction interfaces created.

This table provides a summary of the new and changed B2B Transactions:

Transaction	Procedure	Status	MSATS B2B interface change
Create New Transaction	n/a	Changed	Change to options in the Transaction Type drop- down field. For more detail, see page 7.
Customer Details Notification	CSDN	Changed	A new Email Address field added.
Meter Fault and Issue Notification	OWN	New	n/a
Notice of Metering Works	OWN	New	n/a
Notified Party	OWN	New	n/a
Planned Interruption Notification	OWN	New	n/a



Transaction	Procedure	Status	MSATS B2B interface change
Remote Service Request	MDP	New	n/a
Remote Service Response	MDP	New	n/a
Site Access Request	CSDN	New	n/a
Verify Meter Data Request	MDP	Changed	Change to options in the Investigation Code drop- down field.

## 1.5.2 Customer Details Notification

The existing Customer Details Notification has a new optional email address field. This field is included in the Validation Module software.

Customer Contact Name						
Name Title:						
Given Name:			Family Name:			
Name Type:	~		Name Suffix:			
Email Address:						

## 1.1.1.1 1.2.7.1 User rights access

The entity required for access is **B2B Trans Customer Details Notification**.

### 1.5.3 Meter Fault and Issue Notification

There is a new Meter Fault and Issue Notification transaction.

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Rest Lane (* 1 Mail Home (* 14)) Skal Tyree Skal Tyree Skal New (* 1) New (* 1) New (* 1)	andren forde (for a December ) -	2





Field	Format	Required	Туре	Validations
NMI	CHAR(10)	Yes	Text	
NMI Checksum	CHAR(1)	Yes	Text	
Date	DATE	Yes	Text	dd/mm/yyyy
Start Date	DATE	Optional	Text	dd/mm/yyyy
Start Time	TIME	Optional	Text	
End Date	DATE	Optional	Text	dd/mm/yyyy
Duration	VARCHAR(5)	Optional	Text	If complete, the format of the field is: HH:MM
Supply On	CHAR(1)	Yes	Drop- down	Allowed values: Y N
Supply Off	CHAR (40)	Yes, when the SUPPLY ON value = No	Drop- down	Allowed values: <ul> <li>Remove Fuse</li> <li>Remote</li> <li>Local Meter Disconnection</li> <li>Pillar-Box Pit Or Pole-Top</li> </ul>
Meter Serial Number	VARCHAR (12)	Optional	Text	This is a repeatable field.



Field	Format	Required	Туре	Validations
Reason For Notice	VARCHAR(50)	Yes	Drop- down	<ul> <li>Allowed values:</li> <li>Meter Family Failure</li> <li>Accuracy Failure</li> <li>Timeswitch/Controlled Load Failure</li> <li>Contactor Failure</li> <li>Contactor Failure</li> <li>No Display</li> <li>Communication Failure</li> <li>Meter Verification</li> <li>Malfunction</li> <li>Area Event</li> <li>Metrology Threshold Breach</li> <li>Meter Bypassed</li> <li>Physical Damage</li> <li>Theft/Tampering</li> <li>Other</li> </ul>
Notes	VARCHAR (240)	Yes, when Reason For Notice = Other.	Text	n/a

## 1.5.3.1 User rights access

The entity required for access is **B2B Meter Fault and Issue Notification**.



## 1.5.4 Notice of Metering Works

There is a new Notice of Metering Works transaction.

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Field	Format	Required	Туре	Validations
Nomw ID	VARCHAR(12)	Yes	Text	n/a
NMI	CHAR(10)	Yes	Text	n/a
NMI Checksum	CHAR(1)	Yes	Text	n/a
Work Type	VARCHAR(50)	Yes	Drop- down	Allowed values: Exchange Equipment Install Equipment Remove Equipment Relocate
Field Work Date Time	DATETIME	Yes	Text	n/a
Customer Classification Code	VARCHAR(15)	Yes	Drop- down	Allowed values: Residential Business





Field	Format	Required	Туре	Validations
Energisation Status	VARCHAR (50)	Yes	Drop- down	Allowed values: Active Not Connected Deenergised Before Meter Deenergised At Meter Deenergised After Meter
Primary Voltage	VARCHAR(8)	Yes	Drop- down	Allowed values: 230V 400V 11KV 22KV 22KV 66KV 132KV Other HV
Latitude	NUMERIC (s2.7)	Optional	Text	n/a
Longitude	NUMERIC (s3.7)	Optional	Text	n/a
Participant ID	VARCHAR(10)	Yes	Text	n/a
Total Installed Meters	NUM(2)	Yes	Text	n/a
Meter Serial Number	VARCHAR(12)	Optional	Text	This is a repeatable field.
Supply Phase	VARCHAR(20)	Optional	Drop- down	Allowed values: <ul> <li>1-Phase</li> <li>2-Phase</li> <li>3-Phase</li> <li>Other Multi-Phase</li> </ul> This is a repeatable field.
General Supply	VARCHAR(3)	Optional	Drop- down	Allowed values: <ul> <li>Yes</li> <li>No</li> </ul> This is a repeatable field.





Field	Format	Required	Туре	Validations
Controlled Load	VARCHAR(3)	Optional	Drop- down	Allowed values: • Yes • No This is a repeatable field.
Generation Type	VARCHAR(5)	Optional	Drop- down	Allowed values: <ul> <li>Net</li> <li>Gross</li> <li>None</li> </ul> This is a repeatable field.
Total Installed Network Devices	NUM(2)	Yes	Text	n/a
Network Device Number	VARCHAR(12)	Optional	Text	This is a repeatable field.
Network Device Location	VARCHAR(14)	Optional	Drop- down	Allowed values: <ul> <li>Before Meter</li> <li>After Meter</li> </ul> This is a repeatable field.
Control Equipment Number	VARCHAR(12)	Optional	Text	This is a repeatable field.
Control Equipment Type	VARCHAR(25)	Yes, for each Control Equipme nt Number	Drop- down	Allowed values: Internal Relay External Relay Internal Time Switch External Time Switch This is a repeatable field. Validation is included in the B2B Validation Module.
Control Channel	VARCHAR(12)	Yes, for each Control Equipme nt Number	Text	This is a repeatable field. Validation is included in the B2B Validation Module.
Control Connected Meter Number	VARCHAR(12)	Optional	Text	This is a repeatable field.





Field	Format	Required	Туре	Validations
Transformer Number	VARCHAR(12)	Optional	Text	This is a repeatable field.
Transformer Type	VARCHAR(2)	Optional	Drop- down	Allowed values: CT VT This is a repeatable field.
Transformer Ratio	VARCHAR(20)	Optional	Text	n/a
Transformer Connected Meter Number	VARCHAR(12)	Optional	Text	This is a repeatable field.
Total Removed Meters	NUM(2)	Optional	Text	n/a
Total Removed Other	NUM(2)	Optional	Text	n/a
Removed Equipment Number	VARCHAR(12)	Optional	Text	This is a repeatable field.
Removed Equipment Type	VARCHAR(25)	Yes, for each Remove d Equipme nt Number	Drop- down	Allowed values: <ul> <li>Basic Meter</li> <li>Interval Meter</li> <li>Network Device</li> <li>Control Equipment</li> <li>Instrument Transformer</li> </ul> This is a repeatable field. Validation is included in the B2B Validation Module.
Removed Register	VARCHAR(10)	Yes, if the Remove d Equipme nt Type is a Basic Meter.	Text	This is a repeatable field. Validation is included in the B2B Validation Module.





Field	Format	Required	Туре	Validations
Removed Meter Reading	VARCHAR(15)	Yes, if the Remove d Equipme nt Type is a Basic Meter.	Text	Validation is included in the B2B Validation Module.
Notes	VARCHAR(240 )	Optional	Text	n/a

## 1.5.4.1 User rights access

The entity required for access is **B2B NOTICE OF METERING WORKS**.

## 1.5.5 Notified Party

There is a new Notified Party transaction.

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Field	Format	Required	Туре	Validations
Initiator ID	VARCHAR(10)	Yes	Text	n/a
SO Recipient ID	VARCHAR(10)	Yes	Text	n/a



Field	Format	Required	Туре	Validations
NMI	CHAR(10)	Yes	Text	n/a
NMI Checksum	CHAR(1)	Optional	Text	n/a
Service Order ID	VARCHAR(15)	Yes	Text	n/a
Service Order Type	VARCHAR(22)	Yes	Drop- down	Allowed values: -All current service order types.
Service Order Sub Type	VARCHAR(40)	Yes	Drop- down	Allowed values: The list of service order subtypes that change depending on the service order type selected.
Scheduled Date	DATE	Yes	Text	n/a
Actual Date And Time	DATETIME	Optional	Text	n/a
Notification Status	VARCHAR(30)	Yes	Drop- down	<ul> <li>Allowed values:</li> <li>SO Requested</li> <li>SO Rejected</li> <li>SO Completion</li> <li>Accepted by Notified Party</li> <li>Rejection by Notified Party</li> <li>Notified Party Stopped</li> </ul>
Ref Transaction	aseXML	Optional	Text	n/a

## 1.5.5.1 User rights access

The entity required for access is **B2B Notified Party**.



## 1.5.6 Planned Interruption Notification

There is a new Planned Interruption Notification transaction.

Create Transaction - Planned Interruption Notlikution	New screen		Participant III: Participant Roma
Hooder Prent (*): To (*): Hemosym (*): Threader of (*): Hemosym (*):	NEMACO NEMACO NEMACASSANILZANOTORE Con12 Nema	Manager (1999-1971) Manager (1971	() - May - Mart ( ) , and an
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Crafe Unide Downed Reef			

Field	Format	Required	Туре	Validations
NMI	Char(10)	Yes	Text	n/a
NMI Checksum	Char(1)	Yes	Text	n/a
Start Date	DATE	Yes	Text	dd/mm/yyyy
Start Time	TIME	Yes	Text	n/a
End Date	DATE	Optional	Text	dd/mm/yyyy
Duration	VARCHAR( 5)	Yes	Text	The format of the field is: HH:MM
Reason For Interruption	VARCHAR( 50)	Optional	Drop- down	<ul> <li>Allowed values:</li> <li>Meter Exchange - Individual</li> <li>Meter Exchange - Rollout</li> <li>Meter Replacement - Family Maintenance</li> <li>Meter Test</li> <li>Meter Fault Investigation</li> <li>Distribution Works</li> <li>Other</li> </ul>





Field	Format	Required	Туре	Validations
Notes	VARCHAR (240)	Yes, when Reason For Interruption = Other	Text	

## 1.5.6.1 User rights access

The entity required for access is B2B Planned Interruption Notification.

## 1.5.7 Remote Service Request

There is a new Remote Service Request transaction.

Origina Transaction - Remote Service Request:	The second se		Personal III.	NUMBER OF
	New screen		Cartaland Name	Anticular Interne Marke
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Field	Format	Required	Туре	Validations
Request ID	VARCHAR(15)	Yes	Text	n/a
NMI	CHAR(10)	Yes	Text	n/a
NMI Check Sum	CHAR(1)	Yes	Text	n/a
Meter Serial Number	VARCHAR(12)	Yes	Text	This is a repeatable field
Service Type	VARCHAR(40)	Yes	Text	n/a





Field	Format	Required	Туре	Validations
Request Code	VARCHAR(40)	Yes	Text	n/a
Response Format	VARCHAR(20)	Yes	Text	n/a
From Date Time	DATETIME	Optional	Text	n/a
To Date Time	DATETIME	Optional	Text	n/a
User Defined 1	VARCHAR(240)	Optional	Text	n/a
User Defined 2	VARCHAR(240)	Optional	Text	n/a
User Defined 3	VARCHAR(240)	Optional	Text	n/a
User Defined 4	VARCHAR(240)	Optional	Text	n/a
User Defined 5	VARCHAR(240)	Optional	Text	n/a
User Defined 6	VARCHAR(240)	Optional	Text	n/a
User Defined 7	VARCHAR(240)	Optional	Text	n/a
User Defined 8	VARCHAR(240)	Optional	Text	n/a
User Defined 9	VARCHAR(240)	Optional	Text	n/a
User Defined 10	VARCHAR(240)	Optional	Text	n/a

## 1.5.7.1 User rights access

The entity required for access is **B2B Remote Service Request**.





## 1.5.8 Remote Service Response

There is a new Remote Service Response transaction.

Groute Transaction - Reveals Service Examinat	New screen		Participanet 10	THE MANAGER
			Perfictional Name:	Antroline Courge H
Handler				_
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Field	Format	Required	Туре	Validations
Request ID	VARCHAR(15)	Yes	Text	n/a
NMI	CHAR(10)	Yes	Text	n/a
NMI Checksum	CHAR(1)	Yes	Text	n/a
Meter Serial Number	VARCHAR(12)	Yes	Text	n/a
Service Type	VARCHAR(40)	Yes	Text	n/a
Request Code	VARCHAR(40)	Yes	Text	n/a
Response Format	VARCHAR(20)	Yes	Text	n/a
From Date Time	DATETIME	Optional	Text	n/a
To Date Time	DATETIME	Optional	Text	n/a



Field	Format	Required	Туре	Validations
User Defined 1	VARCHAR(240)	Optional	Text	n/a
User Defined 2	VARCHAR(240)	Optional	Text	n/a
User Defined 3	VARCHAR(240)	Optional	Text	n/a
User Defined 4	VARCHAR(240)	Optional	Text	n/a
User Defined 5	VARCHAR(240)	Optional	Text	n/a
User Defined 6	VARCHAR(240)	Optional	Text	n/a
User Defined 7	VARCHAR(240)	Optional	Text	n/a
User Defined 8	VARCHAR(240)	Optional	Text	n/a
User Defined 9	VARCHAR(240)	Optional	Text	n/a
User Defined 10	VARCHAR(240)	Optional	Text	n/a
Response Payload	DATA	Optional	Text	n/a
Error Code	VARCHAR(4)	Yes	Text	n/a
Error Description	VARCHAR(240)	Optional	Text	n/a
Product Code	VARCHAR(10)	Optional	Text	This is a repeatable field.

## 1.5.8.1 User rights access

The entity required for access is **B2B Remote Service Response**.





## 1.5.9 Site Access Request

There is a new Site Access Request transaction.

Create Transaction - Site	Access Request		Participant ID:	NEMMCO
			Participant Name:	Australian Energy Market Operat
	o your inbox, please click the Create bu tion, please click the Download button.	tton.		
Header				
From (*):	NEMMCO			
To (*):			$\checkmark$	
Message ID (*):	B2BM1496848714689000	Mess	age Date (*):	8-Jun-2017 01:18:34
Transaction Group (*):	SITE	Prior	ity (*):	Medium 🗸
Market (*):	NEM			
Site Access Details				
Transaction ID (*):	B2BT1496848714741000	٦	Transaction Date:	8-Jun-2017 01:18:34
NMI (*):	1234567890	ľ	MI Checksum:	
Reason (*):	No Access details on file for NMI 🛛 🗸			
Special Notes:	Some notes			~
				✓ iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
Create Validate D	ownload Reset			

Field	Format	Required	Туре	Validations
NMI	CHAR(10)	Yes	Text	n/a
NMI Checksum	CHAR(1)	Yes, if Reason = Other	Text	n/a
Reason	VARCHAR(40)	Yes	Drop- down	<ul> <li>Allowed values:</li> <li>New Retailer for site</li> <li>Records old and need to be updated</li> <li>No Access details on file for NMI</li> <li>No Hazard Details on file for NMI</li> <li>Site Visit Required</li> <li>Other</li> </ul>
Special Notes	VARCHAR(24 0)	Yes, if Reason = Other	Text	





## 1.5.9.1 User rights access

The entity required for access is **B2B Site Access Request**.

## 1.5.10 Verify Meter Data Request

There are the following changes to the Investigation Code drop-down list.

Options	Status
Recipient not responsible for the NMI	Removed
Require Latest Version	Removed
Verify/Missing Register	Added
Require Estimate Data	Added
Meter Churn	Added

Header		
Fixin (*). Tin (*)	AB(HC)	
Hessage III (*)	825M1495751154287000	Hessage Date (*)
Transaction Group (*):	AUTO	Printly (7):
Hanket (*):	NEW	
Tramaction Details		
Trienlastion ID (*):	B28T1495751594287001	Transaction Date (*)
Participant Role (*)		
NHE (**)		NHS Checksom
Hater Serial	Investigition Code	
Regular Cit	let of options	- Suffix:
Start Read Date (*) (dd-MRM-yyyy):	*	End Read Date (56-MERI-vyyy):
Clament Read)		Current Read Date (40-MMM-yvyy):
Carrent Consumption:		
meaningston Cade (*):	Confirm Reading For Vacant Site	
Investigation Description 11	Confirm Zero Consumption	
Investigation Description 2:		
	Incomplete Data	
Investigation Description 3:	Invalid MOFF Data	
NHE Configuration NHE Softer	Invalid Standing Data	
	Missing Datastream	
Create Validate Download Reset	Require Actual Reading or Substitute	
	Require Final Substitute	
	Scheduled Reading Required	
	Service Order Reading Required	
	Verify High Reading	
	Verify Low Reading	
	Verify/Missing Register	
	Require Estimate Data	
	Meter Churn	
	Other	



## 1.5.10.1 User rights access

The entity required for access is B2B Trans Verify Meter Data Request.

## **1.6 Service Order Transactions**

## 1.6.1 Changed Service Order Types and Subtypes

Service Order Types	Service Order Subtypes	Status	Change	
Supply Service Works	Allocate NMI	Changed	Name change from Service Order Request - Allocate NMI	
	Establish Temporary Supply Establish Temporary In Permanent Establish Permanent Supply	Changed	Name change from Service Order Request - New Connection	
	Supply Alteration	New	n/a	
	Supply Abolishment	Changed	Name change from Service Order Request - Supply Abolishment	
	Temporary Isolation	New	n/a	
	Temporary Isolation– Group Supply			
	Tariff Change	Changed	Name change from Service Order Request Meter reconfiguration	
Re-Energisation	Remote	Changed	Name change from Service Order Request - Re-energisation	
	Physical Visit			
	Move-in			
	Recipient Discretion			
	After Disconnection For Non-Payment			
	Retrospective Move-in			





Service Order Types	Service Order Subtypes	Status	Change	
De-Energisation	Disconnect at Pillar-Box PitOrPole-Top	Changed	Name change from Service Order Request - De-energisation	
	Remote			
	Local Meter Disconnection			
	Recipient Discretion			
	Remove Fuse			
Special Read	Check Read	Changed	Name change from Service Order Request - Special Read	
	Final Read			
Metering Service Works	Install Meter	Changed	Name change from Service Order Request - Adds and Alts	
	Move Meter			
	Exchange Meter			
	Install Controlled Load			
	Remove Meter	New		
	Meter Reconfiguration	Changed	Name change from Service Order Request - Meter Reconfiguration	
	Meter Investigation- Inspect	Changed	Name change from Service Order Request - Meter Investigation	
	Meter Investigation-Test			
	Reseal Device			
	Change Timeswitch Settings			
Miscellaneous	There are no sub types	Changed	Name change from Service Order Request Miscellaneous	





Service Order Types	Service Order Subtypes	Status	Change
Cancel	There are no sub types	Changed	Name change from Service Order Request - Cancel
Response	There are no sub types	Changed	Name change from Service Order Request - Response





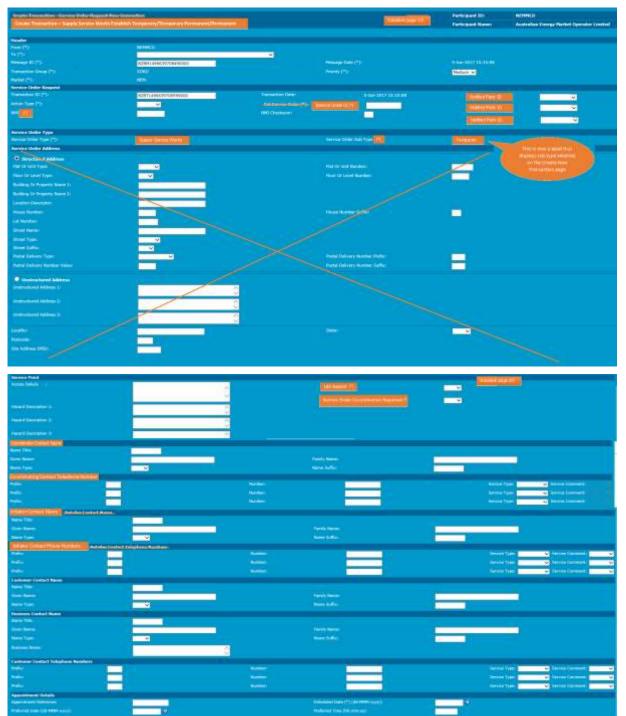
## 1.6.2 Supply Service Works - Allocate NMI







## 1.6.3 Supply Service Works - Establish Temporary/Temporary Permanent/Permanent





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## 1.6.4 Supply Service Works - Supply Alteration

Same changes as Supply Service Works - Establish Temporary/Temporary Permanent/Permanent on page 29.





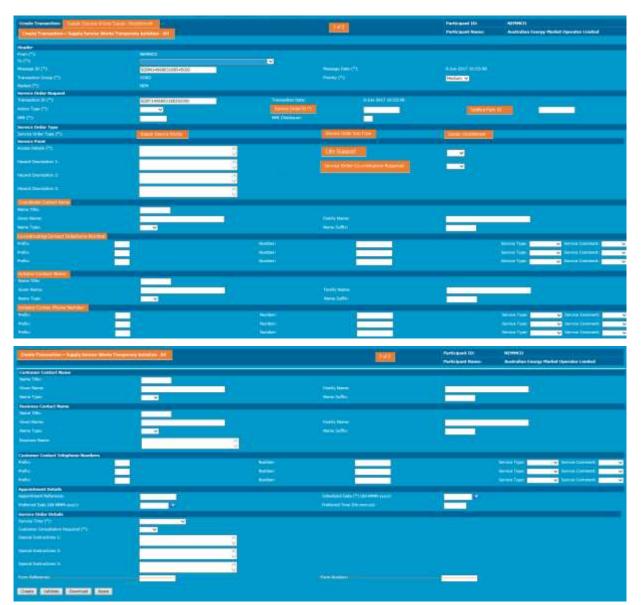
## 1.6.5 Supply Service Works - Supply Abolishment







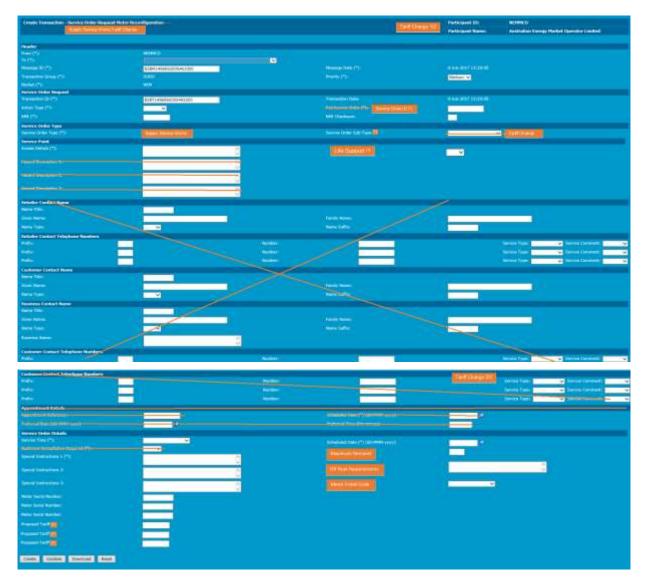
## 1.6.6 Supply Service Works - Temporary Isolation – All







## 1.6.7 Supply Service Works - Tariff Change







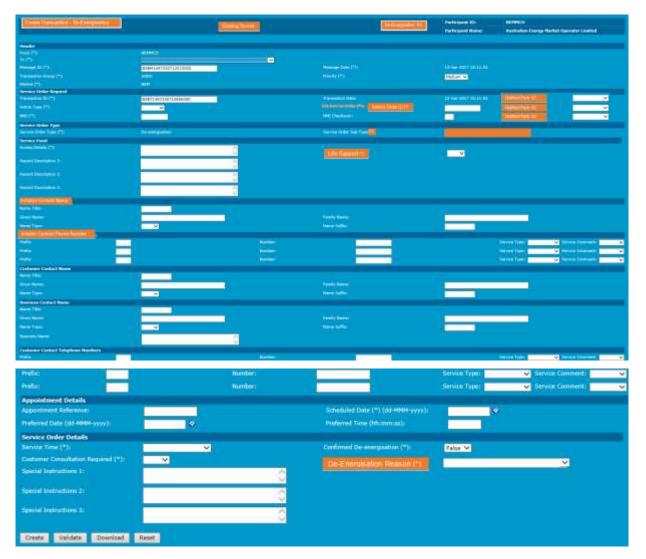
# 1.6.8 Re-Energisation







## 1.6.9 De-Energisation







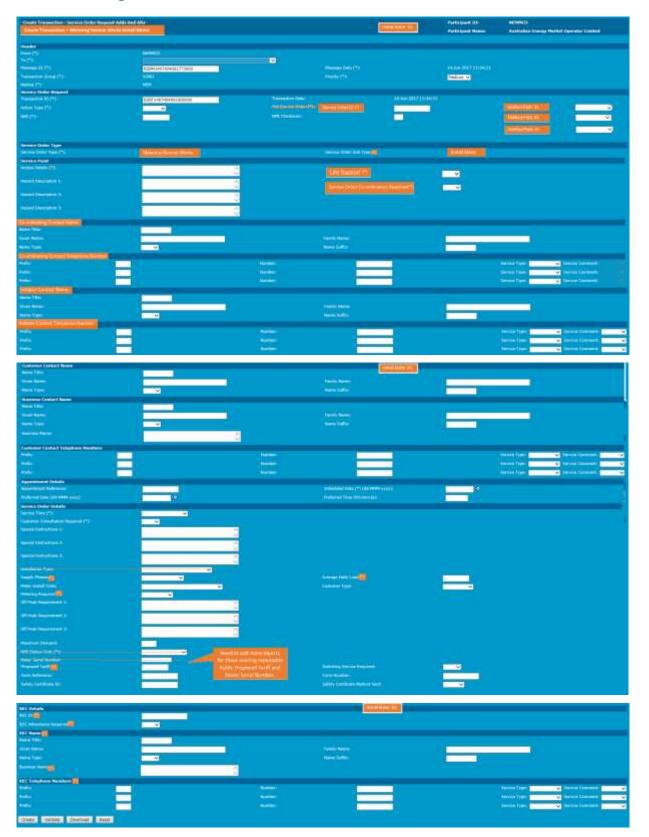
# 1.6.10 Special Read

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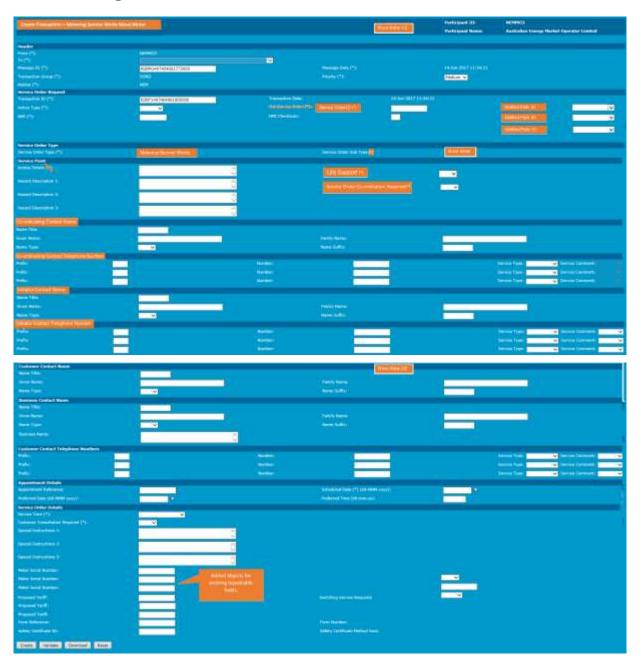
#### 1.6.11 Metering Service Works - Install Meter







#### 1.6.12 Metering Service Works - Move Meter



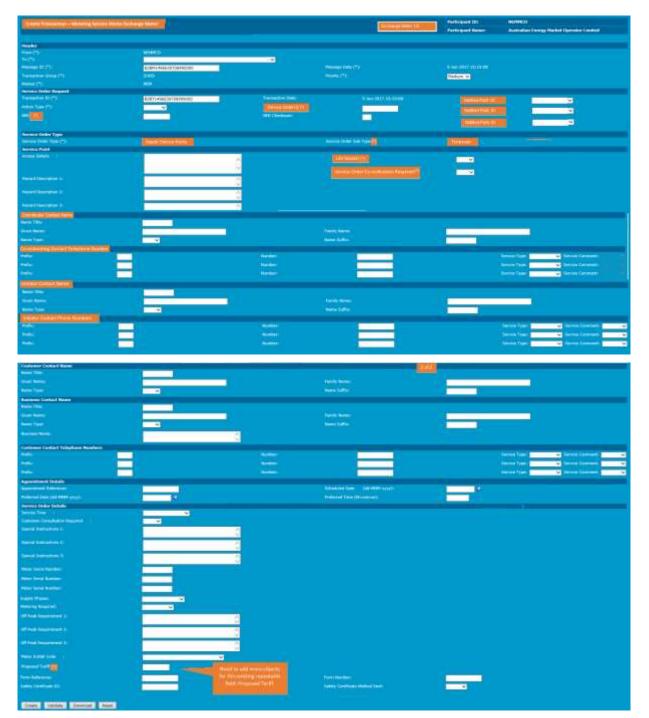
#### 1.6.13 Metering Service Works - Remove Meter

Same changes as Metering Service Works - Move Meter above.





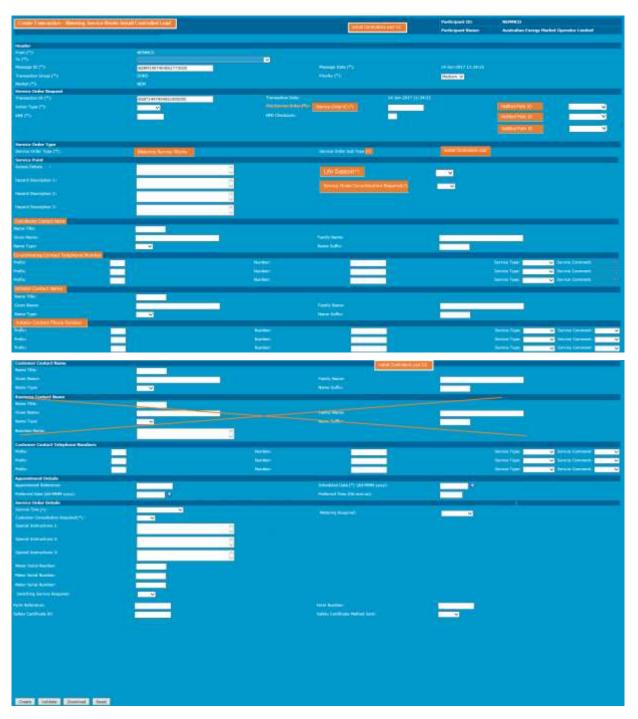
# 1.6.14 Metering Service Works - Exchange Meter







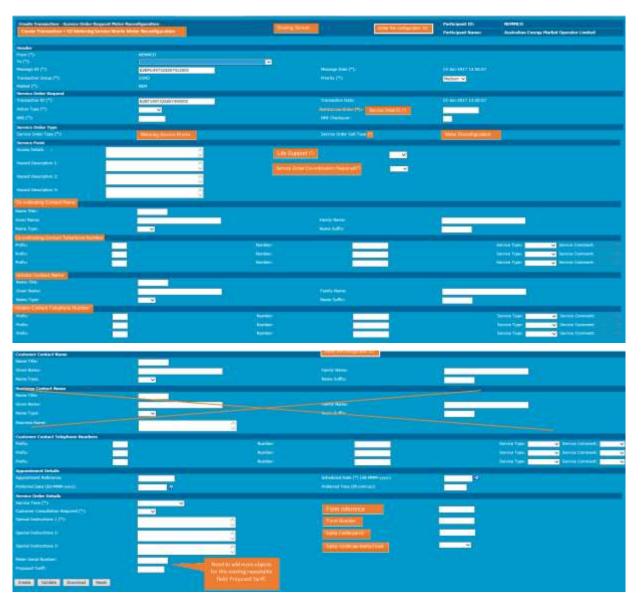
## 1.6.15 Metering Service Works - Install Controlled Load







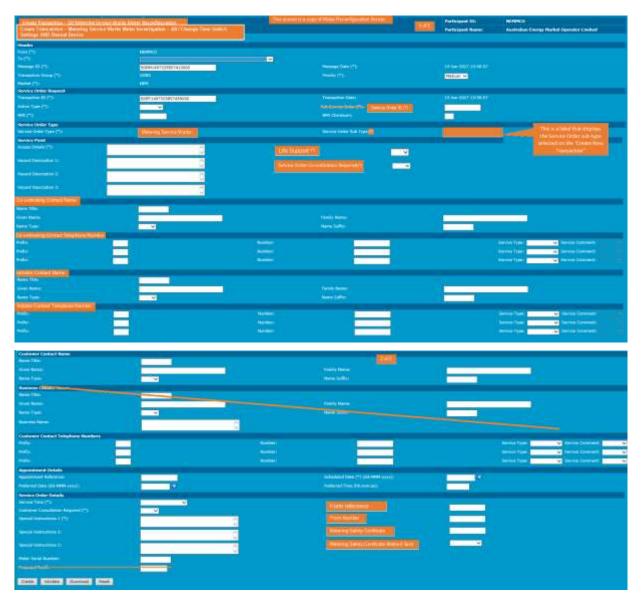
# 1.6.16 Metering Service Works - Meter Reconfiguration





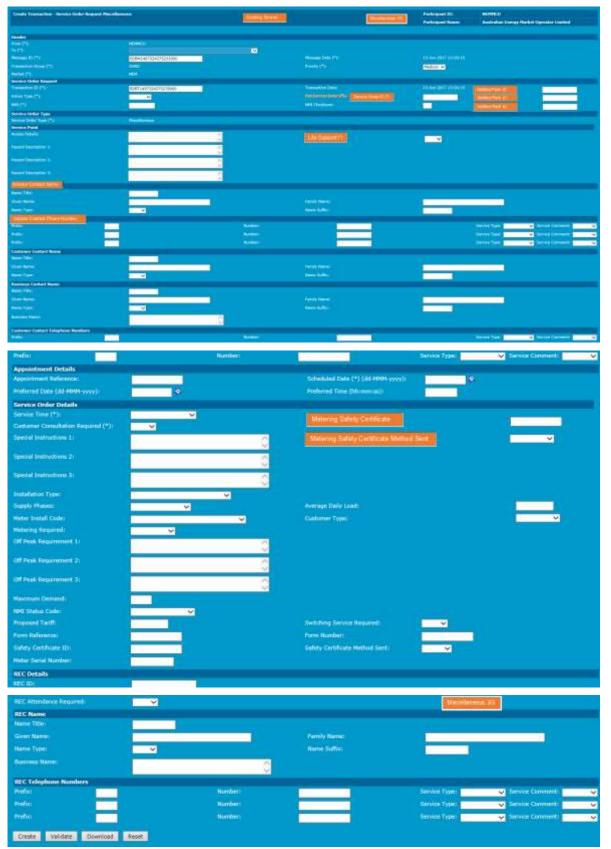


# 1.6.17 Metering Service Works - Meter Investigation – All /Change Time Switch Settings and Reseal Device





#### 1.6.18 Miscellaneous Service Order







#### 1.6.19 Cancel Service Order

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#### 1.6.20 Service Order Response

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# 1.7 MSATS web portal menu

The MSATS menu has the following change:

# Ombudsman Participants Create Participants Role Assignment Participant Information Participant Contacts Participant Schema

FTP System Status Batch Configuration

#### Transactions

Under the **Participants** menu, Participant System Status is renamed to **FTP System Status**. For interface details, see Participant System Status on page 47.



The B2B Browser menu has the following changes:

* B2B Browser
B2B Inbox
B2B Outbox
B2B Hub Queue
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
Transforms and Protoco
B2B Self-Accreditation

• **B2B Hub Queue** is a new menu item. For interface details, see B2B Hub Queue on page 47.

• Search Hub Trans Log is a new menu item. For interface details, see Search Hub Transaction Log on page 47.

• **B2B Hub Dashboard** is renamed to **B2B FTP Dashboard**. For interface details, see B2B Hub Dashboard on page 53.

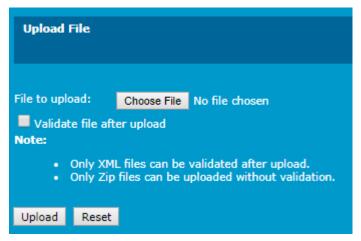
• **B2B Self-Accreditation** is a new menu item. For interface details, see B2B e-Hub Self-Accreditation on page 61.

# 1.8 B2B Upload File

The current B2B Upload File interface changes to include integration of retail B2B transactions with the new *B2B e-Hub*; non-retail B2B transactions are unaffected.

Participants acting as Initiators can upload zip and XML Messages for delivery to recipients based on their Transaction Group Protocol Preference, where:

- **FTP** indicates the Initiator elects to send all messages of the Transaction Group using the FTP Hokey-pokey Protocol so the message is delivered to the Recipient's B2B Inbox.
- **API** indicates the Initiator elects to send all messages of the Transaction Group using the API Web Services Protocol so the message is delivered to the *B2B e-Hub* API Gateway.







## 1.9 Search Hub Transaction Log

This new interface searches the log in the B2B e-Hub.

The existing Filename field has changed to **Message Context ID / Filename**. Searches using this field no longer support the zip file extension but still supports SQL patterns. For help, see SQL patterns on page 63.

Search Hub Transaction Log			Partic
			Partic
From Participant:		<b>v</b>	
To Participant:		<b>v</b>	1
Message Id:		Transaction Id:	
Initiating Transaction Id:		NMI:	3
Initiating Service Order ID:		Service Order Type:	
Transaction Type:	<b>▼</b>	Service Order Sub Type:	
Transaction Status:	<b>*</b>		
Message Context ID / Filename:			
	Search by Transaction Delivered Date S	earch by Transaction Status Modified Date	4
From Date (dd-MMM-yyyy):	-	From Time (hh:mm:ss):	
To Date (dd-MMM-yyyy):	*	To Time (hh:mm:ss):	
Note: At least one search criteria must	t be used.		1
Search Reset			

#### 1.1.2 User rights access

The entity required for access is B2B Hub Transaction Log.

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

## **1.10 Participant System Status**

The Participant System Status interface, under the **Participants** menu changes name to **Participant FTP System Status**, supporting the FTP Hokey-pokey Protocol.

Participant FTP System Status			Participant ID:			пеммсо							
					P	articipant N	ame:	ne: Australian Energy Market Oper			Opera	ator Limited	
Destint	Participant FTP System Status												
Particip	ant FI	P Syste	m s	Status									
System		Box		Status		Description			Reason				
	Туре						Grou	)S			Time	Time	
$\mathbf{\sim}$	~		~		~								





#### 1.10.1 User rights access

The existing Participant System Status entity: **B2B Participant Status Report** remains the same.

# 1.11 B2B Hub Queue

This is a new interface and functionality reflecting queued messages in the *B2B e-Hub* API Gateway. This interface provides participants selecting to use web services the ability to manage and acknowledge B2B Messages. The functionality is similar to the existing B2B Outbox interface.

- 1. **Messages and Errors:** Reports the count of messages in the hub and the count of messages matching the search criteria, after each search.
  - White text = normal messages.
  - Yellow text = error messages.
- 2. Search criteria: For help, see SQL patterns on page 63.
- 3. B2B Hub Queue Contents



B2B Hub Queue			Provident Providence	ant ID:	-	ммсо			
			Particip	oant Name:	Au	stralian Energ	y Marke	Operate	or Limited
6 Message(s) Match S 17 Message(s) Total Q		1							
Search Criteria 2									
Message Context	ID / File Nar	me							
Message Context ID / Fi	ile Name (* as	wildcard):							
• Assisted Filename	e								
Transaction Groups:	ITE			Message T	ype:				~
S	SORD			Priority:					~
i i i i i i i i i i i i i i i i i i i	UST			From Parti		Nectors			~
				Participant					
Received From Date (dd		1	*			fime (hh:mm:s	s):		
Received To Date (dd-m	1000 imm-yyyy):		-	Received To	o Tim	e (hh:mm:ss):			
Search Reset	. 3					button or link			
B2B Hub Queue Conte	nts 💙				na	ve permission	to pend	orm the	action
Delete Selected Acknow	wledgments	Select A	II Acknow	ledgments		De-Select All	Acknowle	dgments	
Acknowledge Selected	Messages	Sele	ect All Me	ssages		De-Select	All Mess	ages	
Context ID / File	and the second se	the same state of the same state				Received Date	Party and other	_	0-1017429AL
file 1	B2B-1	Trans	action M	essage		recievedDate	Low	CITIPP •	Download Reject
file 2	828-2	Mess	age Agikn	owledgement	t I	recievedDate	Medium	CITIPP -	Download Delete
☐ file 3	828-3	Trans	iactiqn Ac	knowledgem	nenti	recievedDate	High	CITIPP	Download Reject
View file	_	Sort by	column	headings		View, reje	ct, or de	elete me	ssage





## 1.11.1 B2B View Message Acknowledgement

View Message Acknowledgement		Participant ID:		NEMMCO				
		Participant Name:		Australian Energy Market Operat			ator Limited	
Message: outbox\	sordmnemm	ob2bb141800	13212	26000 ack				
Header	Sordinineinin		1.5212.	LOUDURACK				
From: To:	NEMMCO NEMMCO							
Message ID:	B2BM149187	2667737000	Mess	age Date:	11-Ap	r-2017 11:0	04:27	
Transaction Group:	SORD		Prior	ity:	Mediu	m		
Market:	NEM							
Message Acknowl	edgement							
Initiating Message ID:	B2BM141800	1201179000	Stat	us:	Accep	t		
Receipt ID:	B2BR149187	2667737001	Rece			2017-04- 11T11:04:27.0+10:00		
Duplicate:								
Transaction Ackno	wledgement	5						
Initiating Transac	tion ID	Receipt	ID	Receipt Da	ate	Status	Action	
Download								

#### 1.11.2 B2B View Message

View Message		Participant ID:	N	EMI	мсо			
		Participant Nar	ne: A	ustr	ralian Ene	ergy Market Op	perator	Limited
Message: outbox\	sordmnemm	cob2bb14180013	32122	5000	0.zip			
Header								
From:	NEMMCO							
To:	NEMMCO							
Message ID:	B2BM14180	01201179000	Messa	ige C	Date:	8-Dec-2014 1	1:13:21	L.
Transaction Group:	SORD		Priorit	y:		Medium		
Market:	NEM							
Transactions								
Transaction ID	T	ransaction Type	NM	II	initiating	Transaction II	)	Action
B2BT14180012011	79001 A	llocate NMI						
Download								





#### 1.11.3 B2B Delete File

View Message Acknowledgement					
Message: sordl_	_b1501982092628000				
Header					
From:					
То:					
Message ID:	B2B-06081711143				
Transaction Group:	SORD				
Market:	NEM				
Message Acknowledgem	ent				
Initiating Message ID:	B2BM1501981679				
Receipt ID:	56822558-a31f-40				
Duplicate:					
Transaction Acknowledg	ements				
Initiating Transaction II	D				
Delete Download					





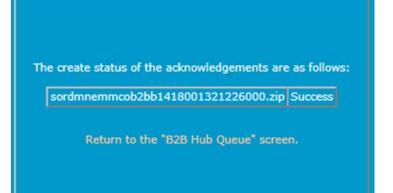
#### 1.11.4 B2B Create Message Acknowledgement

Create Message Acknowle	edgement		Participant ID:	NEMMCO
			Participant Name:	Australian Energy Market Operator Limited
Message To Acknowledge:	sordmnemmcob2bb1418001321226000.zip			
Header				
From (*):	NEMMCO			
T0.(0):	NEMIMCO			
Message ID (*):	B2BM1493860326239000	Message	Date (*):	4-May-2017 11:12:06
Transaction Group (*):	SORD	Priority	(D):	Medium
Market (*):	NEM			
Acknowledgement				
Initiating Message ID (*):	B2BM1486507410936000			
Receipt ID:	B2BR1493860326255000	Receipt	Date (*):	4-May-2017 11:12:06
Status (*):	▼	Duplicat	ec.	<b></b>
Event				
Class:	¥			
Code/Description/Severity (*):				×
Key Info:	0			
Context:				
0.00000000	Ó			
Explanation:				
	^			
	~			
Create Cancel				

#### 1.11.5 B2B Create Message Acknowledgements – Accept

ept	Participant ID: Participant Name:	NEMMCO Australian Energy Market Operator Limite		
essage ID (*)	Receipt 1D (*)	Status (*) Act	lion	
28M1493946090463000	* B2BR1493946090463001	Accept •	Download Initiating	
		Participant Name:	Participant Name: Australian Energy Market ssage ID (*)  Status (*)  Act	

#### 1.11.6 B2B Create Message Acknowledgement Confirmation







#### 1.11.7 User rights access

Participant administrators grant delete, create, update, and read rights to their participant users to use the B2B Hub Queue entity.

For help maintaining user rights, see Guide to User Rights Management.Participant System Status

## 1.12B2B Hub Dashboard

The B2B Hub Dashboard interface, under the **B2B Browser** menu changes name to **B2B FTP Dashboard**, supporting the FTP Hokey-pokey Protocol.

Settlement Data	B2B FTP Dashboard (Current	Status)	Participant ID:	NEMMCO
Reports			Participant Name:	Australian Energy Market Operator Limited
B2B Browser B2B Inbox B2B Outbox	Report Participant (*): View Report		Participant Name:	Australian Energy Market Operator Limited

#### 1.12.1 User rights access

The existing B2B Hub Dashboard interactive entity is renamed to B2B FTP Dashboard.

AEMO automatically migrates participants currently having access rights to the new entity name. No action is required from participants.

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





# 1.13 B2B Toggle Modify Functionality

The Modify Functionality interface, under the **B2B Browser** menu has an additional checkbox to support the B2B Hub Queue, **Delete Hub Queue Message Acknowledgement**.

When Participant Administrators select **Create Response Message Acknowledgement**, permission is granted to participant users to delete message acknowledgements and a **Delete** button is visible see B2B Delete File on page 51.

Toggle Modify Functionality	Participant 1	ID:	NEMMCO
	Participant Name:		e: Australian Energy Market Operator Limited
Functionality		Toggle	gle On
Delete File		<b>V</b>	<b>V</b>
Upload File (No Validation)			✓
Create Response Message Acknow	vledgement		✓
Auto Delete From Inbox			✓
Create New Transaction		✓	✓
Create Response Transaction		✓	✓
Create Response Transaction Ack	nowledgement	<ul> <li>✓</li> </ul>	<b>√</b>
Upload & Validate Transaction		✓	✓
Delete Hub Queue Message Ackn	owledgement		
Update Cancel			

#### 1.13.1 User rights access

The entity required for access for participant administrators is **B2B Toggle Modify Functionality**.

#### **1.14B2B Transforms**

To support interoperability, the existing B2B Transforms menu and interface name changes to **B2B Transforms and Protocol**. This interface allows participants to transition schemas and select FTP or API protocols.

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.



B2B Transf	orms and	Proto	col	Pa	articipant ID	: NEMM	со				
				Pa	articipant Na	ime: Austr	alian I	Energy Mar	rket O	perator Li	mited
You have 0 828	messages p	arked o	ut of the allowe	id 4	80. Y	ou have -4	minute	s to compl	ete yo	our change	
828 transaction			hange to versi	on	Change to	Outbox	1	Hub Queu	-	Parked	
group	schema ver	rsion			Protocol	Messages	ACKS	Messages	ACKS	Messages	ACKS
CUST	r32	1	32	~	FTP 🗸	17	3	0	0	0	0
MTRD	r32		32	Y	FTP V	0	0	0	0	0	0
OWNP	r32		32	~	FTP 🗸	6	0	0	0	0	0
SITE	r32		32	~	FTP 🗸	36	6	0	0	0	0
SORD	r32		32	Y	FTP 🗸	0	1	0	0	0	0
Start change	Cancel	change	Refresh	-	Complete chi	10.04	283	10 X			1
Sourcesinge	Concer	change	Kenesing		complete en	27 1979 B					
Receiving sche version		ransfor	ms								
r25	r3	2 to r25									
r32	12	5 to r32									

## 1.14.1 Stopped interface

B2B Transforms and Proto	col Parti	icipant ID:	NEMMCO
	Part	icipant Name:	Australian Energy Market Operator Limited
Please	stopped for B2B i icknowledge your plete your schema	B2B messag	ges and then click refresh nge.
Refresh			

## 1.14.2 Already Started/Parked interface

32B transaction Receiving			Change to version		Outbox		Hub Queue		Parked	
group	schema version			Protocol	Messages	ACKS	Messages	ACKS	Messages	ACK
CUST	r32	r32	<	FTP 🗸	17	3	0	0	0	0
MTRD	r32	r32	~	FTP 🗸	0	0	0	0	0	0
OWNP	r32	r32	~	FTP 🗸	6	0	0	0	0	0
SITE	r32	r32	~	FTP 🗸	36	6	0	0	0	0
SORD	r32	r32	~	FTP 🗸	0	1	0	0	0	0
Start change	Cancel chan	je Refresh		Complete cha	nge					
Receiving schei version	ma Transt applie									
r25	r32 to	-25								
r32	r25 to	-30								



## 1.14.3 Not started/parked interface

group         schema version         Protocol         Messages         ACKS         Messages	32B transaction Receiving		Change to version	Change to	Outbox		Hub Queue		Parked	
MTRD       r32       r25       FTP ×       0       0       0       0       0       0       0       0       0         OWNP       r32       r32       FTP ×       6       0<	group	schema version		Protocol	Messages	ACKS	Messages	ACKS	Messages	ACKS
OWNP       r32       r32       FTP ×       6       0       0       0       0       0         SITE       r32       r32       FTP ×       66       0       0       0       0       0       0       0	CUST	r32	r32 🗸	FTP 🗸	17	3	0	0	0	0
SITE $r_{32}$ $r_{32}$ $r_{72}$ $r_{72$	MTRD	r32	r25 🗸	FTP 🗸	0	0	0	0	0	0
	OWNP	r32	r32 🗸	FTP 🗸	6	0	0	0	0	0
SORD r32	SITE	r32	r32 🗸	FTP 🗸	36	6	0	0	0	0
	SORD	r32	r32 🗸	FTP 🗸	0	1	0	0	0	0
Start change Cancel change Refresh Complete change	Start change	Cancel chang	e <b>Refresh</b>	Complete cha	nge					
Receiving schema Transforms	Receiving scher	na Transf	orms							

#### 1.14.4 System error interface

B2B Transforms a	nd Protocol	Participant ID:	NEMMCO
		Participant Name:	Australian Energy Market Operator Limited
Refresh	Unexpected erro Please try again. support hub.	or has occured. If the error persists p	lease contact AEMO

# 1.14.5 No Change interface

2B transaction Receiving					Change to	Outbox		Hub Queu	e	Parked		
group	group schema version				Proto	col	Messages	ACKS	Messages	ACKS	Messages	ACKS
CUST	r32		r32	~	FTP \	1	17	3	0	0	0	0
MTRD	r32		r32	~	FTP N	1	0	0	0	0	0	0
OWNP	r32		r32	~	FTP N	-	6	0	0	0	0	0
SITE	r32		r32	~	FTP \	1	36	6	0	0	0	0
SORD	r32		r32	~	FTP \	-	0	1	0	0	0	0
Start change	Cance	l change	e Refr	esh	Compl	ete cha	ange					
Receiving scher version		Transfo applied		1								
r25		32 to r2										
r32		25 to r3	2									

## 1.14.6 User rights access

The existing B2B Transforms interactive entity is renamed B2B Transforms and Protocols.





AEMO automatically migrates participants currently having access rights to the new entity name. No action is required from participants.

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



# 1.15B2B Responder

#### 1.15.1 Create transactions

The B2B Responder > Create Transactions is modified to:

- Support the new Notified Party transaction.
- Support the new B2B transaction types and sub types.
- Support B2B transactions created in the new aseXML Schema version r36.
- Allow a single listing of all B2B transactions available to all role types.
- Remove the Transaction Group section.
- Remove the initial Please select a Participant Role interface.





3

#### **Create Standard Transactions**

	ing Transactions Multiple Transactions
	Duplicate Messages
	Duplicate Transactions
SORD	
	Service Order Response
	De-energisation > Recipient Discretion
	Metering Service Works > Exchange Meter
	Metering Service Works > Install Meter
	Metering Service Works > Meter Reconfiguration
	Metering Service Works > Remove Meter
	Miscellaneous Services
	Re-energisation > After Disconnect for Non-payment
	Re-energisation > Recipient Discretion
	Special Read > Check Read
	Supply Service Works > Allocate NMI
-	Supply Service Works > Establish Permanent
	Supply Service Works > Supply Abolishment
MTRD	
	Meter Data Notification
	Provide Meter Data
	Verify Meter Data
CUST	
	Customer Details Notification
	Customer Details Request
SITE	
	Site Access Notification
	Site Access Request
OWNX	
	Meter Fault and Issue Notification
•	Notice of Metering Works
	Planned Interruption Notification
NPNX	
-	Notified Party > SO Requested (Re-energisation > After Disconnect for Non-payment)
	Notified Party > Accepted by Notified Party (Re-energisation > After Disconnect for Non-payment)
•	Notified Party > Rejection by Notified Party (Re-energisation > After Disconnect for Non-payment)
Continu	In Prest
Continu	Je Reset



#### 1.15.2 Search transactions

The B2B Responder > Search Transactions is modified to:

- Display new transaction groups.
- Display new and modified transaction types.

Search Transactions	Participant II	):	NEMMCO	
	Participant N	ame:	Australian Energ	gy Market Operator Lir
Set Search Criteria				
	N-	_	<b>A</b>	
From Date (*) (dd-mmm-yyyy	):		*	
To Date (*) (dd-mmm-yyyy):			۰	
Message Type (*):		Messa	age 🔻	
Transaction Group:		All	N	
Transaction Type:		All		•
Transaction Status:		MTRE		
Responder (*):		MRSR NPNX		
Participant (*):		OWN OWN	<b>•</b>	
Message ID:		PTPE SITE		
Transaction ID:		SORD	)	
Initiating Message ID:				
Initiating Transaction ID:				
Sort By:		Date		•
Search				

#### 1.15.3 Paste transactions

Participants can submit aseXML schema r36 messages using the **Paste Transactions** interface in the MSATS web portal B2B Responder.

Currently, participant cannot submit aseXML schema r36 messages using the B2B Responder > Create Transactions interface.

#### 1.15.4 User rights access

The entities required for access are:

- B2BR Create Transactions (new)
  - This is a new entity replacing B2BR Create DIST Transactions, B2BR Create MDP Transactions, B2BR Create Retail Transactions.





- B2BR Paste Transactions
- B2BR Search All Participants Transactions
- B2BR Search Transactions

# 1.16 B2B e-Hub Self-Accreditation

Accreditation ensures participants' processes and IT systems are ready to interact with AEMO's systems safely and securely, delivering data in the appropriate format in accordance with the B2B Procedures.

Accreditation does not include requirements related to the quality of data in the transactions or any back office processes.

Once accredited, participants can use the e-Hub to send and receive the following communications to other e-Hub participants:

- Documents conforming to the current aseXML schema.
- CSV data (where applicable).

Interface example

**B2B Solf-Acconditation** 

						Participant ID: [PARTICIPA Participant Name: [PARTICIPAN
Search For Te	at Transactions					
	Role (*)	191	Note: Where Participant	ts undertaike multiple roles in the	market separate appli	cations are required.
From Date	dd-MMM-yyyy) (*);	130ct2017				
	(dd-HMH-vyyy) (*):	140ct3017				
Dearth	25022020000000					
Stops 1 - Has	anigaa					
Applicants an	required to demonstrat	a to AEHO that their JT system	ns can fulfil the measaging	requirements for their chosen I	Narket Protocol(4)	
Fretocel	APE Name	Resource	Ressage Direction	Test Outcome		
API	628HassagingAsync	/maxsagee	Participent to e-Hub			
API	828MessagingAsync	/messageActinowiedments				
API	828MessagingAsync	/messages	e-Hub to Participant			
API API	828HestagingAsync 828HestagingPull	/messageAcknowledgment /messages	s e-Hub to Participant Participant to e-Hub			
API	525MessagingPull	(messageAcknowledments				
PTP	825	interesting excerning and the second	Send.zip	No Match Found		
FTP	110		Receive .21p	No Match Found		
Download	actions	ate to AEMO that their IT such	ims can produce and send	I transactions that can be accept	ed by other perticipants	
Tistualti						Enternation Radoone
SO			Table Derrick Coller :	Participant to # Hu		Ensurgeren maanen
80					t Ne Match Found	Where there are a burned text Handshiry
50	BerviceDrd	erRequest Supply Service	Works Supply Aboli			
50	to ServiceOrd	erRequest Supply Service	Works Establish Ferr	manent Farticipant to e-Hu	D Fast	
1.				MENTAL PASSAGE SUBSIDIES		
Download	Results					
	nit so AEMO: etonging - API (Gatewa) etonging - PTP	and Web Service)				

#### 1.16.1 User rights access

The entity required for access is **B2B e-HUB Self-Accreditation**.





For more details about accreditation, see Guide to B2B e-Hub Self-Accreditation attached to this document.

# **1.17 MSATS B2B Batch Handlers**

For interoperability, the current MSATS B2B Batch Handlers change to interface with the e-Hub API Gateway, ensuring back-end message exchange transparency for participants.

The MSATS B2B Batch Handlers address the following B2B retail transaction groups: MTRD, MRSR, SORD, CUST, SITE, OWNP, OWNX, NPNX, and PTPE.

Support is also added for the aseXML B2B schema r36.





The MSATS B2B Batch Handlers are still responsible for the following processing and validations:

- Check XML file size is less than 1 MB.
- Check schema is valid.
- Extract schema version.
- Extract header information.
- Construct ACK based on the header information.

SMP is now responsible for the following batch handler processes:

- The exchange of messages and files.
- The sending of alerts.
- The archiving of zip files.
- The validation of the zip file and the message inside.
- Logging the message and transaction information.
- The evaluation of the parkbox cancellation (times and file count).
- The transformation of messages in the cancel or transform parkbox.
- The implementation of the Notified Party logic (new functionality).
- Validation of the ACK file.
- Delivery of the ACK file to the destination.
- Logging the ACK information.

# 1.18 SQL patterns

The supported SQL patterns change to the following:

Wildcard Pattern	Description
[Blank]	A blank field acts as a wildcard.
%	Matches any word, for example: Entering % for message ID matches any message ID.
хххх%	A type of substring match that matches the starting value and any text after that value. For example: Entering B2B% for message ID matches all messages with the message ID starting with the word B2B.



Wildcard Pattern	Description
%xxxx%	Another type of substring match that fetches all text matching the value in the middle of the %. For example: Entering %BB% for message ID matches any message ID containing the word BB in the middle.
%хххх	Matches text that has the value after the %. For example: Entering %BB for the message ID matches any message ID ending with the word BB.





# **2 BASELINE ASSUMPTIONS**

AEMO works to the assumption that participants' systems are compliant with the minimum supported configuration of the following.

AEMO advises participants using other standards critical to their business to participate in the pre-production rollout and testing period.

# 2.1 Software

Software	Version	Release
MSATS	3.0	46.89
Participant Batcher	2.10	46.89 changes for this release
Validation Module	1.0.26	46.89 changes for this release
Web Services	1.04	46.88
Java	8	The software is supplied with source code so participants can recompile with any Java version.
Windows service	64 bit JRE	32 bit JRE still supported

The current versions of MSATS software are:

You can find MSATS software and guides on AEMO's website>Retail and metering>Market Settlement and Transfer Solutions.

## 2.2 aseXML schemas

#### 2.2.1 Supported aseXML versions and enumerations

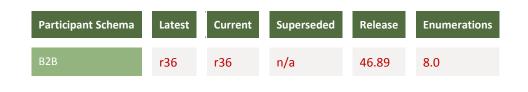
The supported aseXML versions and enumerations for MSATS release 46.89 are:

Participant Schema	Latest	Current	Superseded	Release	Enumerations
B2M	r35	r35	r31	46.88	7.0



MSATS 46.89 TECHNICAL SPECIFICATION - DECEMBER 2017 BASELINE ASSUMPTIONS





The aseXML schema changes explained in this technical specification only apply to the B2B schema.

#### 2.2.2 What happens during a B2B schema change?

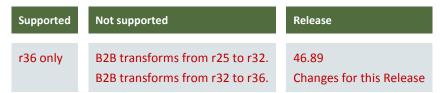
For this Release, AEMO automatically upgrades B2B participants to the current B2B schema r36. There is no action required from participants and no transforms apply for this Release.

To check your nominated aseXML version for receiving B2B transactions, see:

• B2B schema: B2B Browser > B2B Transforms.

To obtain schemas, guidelines, and whitepapers, see aseXML Standards on **AEMO's website**>IT Systems.

#### 2.3 B2B transforms



No transforms apply for this Release. AEMO will pass through B2B transactions submitted in r36 or earlier without transform.

AEMO automatically upgrades participants currently receiving B2B transactions in the existing superseded or current versions of the aseXML schema, r32 or r25.

To learn more about B2B Transforms, see Guide to MSATS B2B.





# 2.4 Web Services schemas

The aseXML schema versions change for web services for the B2M schema r35:

Web service	Current	Superseded	Release
C4 – NMI Master Report	r35	r31	46.88
MSATS Limits	r35	r31	46.88
NMI Discovery – type 1	r35	r31	46.88
NMI Detail	r35	r31	46.88
NMI Discovery – type 3	r35	r31	46.88
Participant System Status	r35	r32	46.88

# 2.5 Procedures

AEMO consultations are key reference documents and take precedence over this document. For open consultations and recently closed consultations, see Stakeholder Consultation on AEMO's website.

Name	Version	Effective/indicative date	Changes in this Release	AEMO website
B2B Procedures	3.0 In consultation	1 December 2017	Changes for 46.89	Stakeholder Consultation
CATS & WIGS Procedures	4.2	1 December 2017	Changes for 46.88	Stakeholder Consultation
MDM Procedures	3.3	1 December 2017	Changes for 46.88	Stakeholder Consultation
NEM ROLR Procedures	1.4	1 December 2017	Changes for 46.88	Stakeholder Consultation



# **3 IMPLEMENTATION**

# 3.1 Approval or agreement to change

AEMO seeks approval to proceed from all participant change controllers. For details, see MSATS 46.89 Release Schedule – December 2017.

# 3.2 Transitioning

There are no transforms available for this Release. AEMO automatically transitions all B2B participants to the current B2B aseXML schema r36.

# 3.3 Implications

To maintain systems in-line with AEMO's market systems, participants need to:

- Review and assess the impact on their market systems with respect to the changes implemented as part of this Release.
- If required, schedule staff and resources to upgrade their market systems for this Release.

# 3.4 Risks

There is moderate risk with this change as all retail B2B transactions are changed.

There is a 1 December 2017 business obligation for this Release so the risk is with the ability of participants' IT staff to make their required IT system changes by the implementation dates.

# 3.5 Upgrade options

Because there is a 1 December 2017 business obligation for this Release, there are no upgrade options. The key is upgrading to the aseXML B2B schema r36.

#### 3.5.1 What happens if I do not upgrade?

For impacts to participants not upgrading to the aseXML schema r36, see Impacts of not upgrading to B2B aseXML schema r36 on page 5.





# 4 RELATED RESOURCES

#### You can find the following resources on AEMO's website:

Name	Detail
aseXML Standards	aseXML schemas, guidelines, and whitepapers.
B2B Framework rule changes	Information on the AEMC website detailing the changes to the B2B framework.
B2B Mapping to aseXML	Maps the business documents, business signals, and business items to their implementations.
Guide to B2B E-Hub Self- Accreditation	Explains how to obtain accreditation to become a <i>B2B e-Hub Participant</i> .
Guide to MSATS B2B	Information about B2B Transforms and the B2B functions available in MSATS.
Guide to Transition of aseXML	Provides information for participants transitioning to another aseXML schema version.
MSATS 46.88 Release Technical Specification – December 2017	Information about the MSATS Release 46.88 EN/MC that includes the new B2M schema r35 and the CATS and WIGS Procedures v4.2.
Power of Choice	Details about the Power of Choice implementation program.
Power of Choice – B2B Procedure Changes	Details about the changes to B2B procedures for Power of Choice.
Schema Release Notes r36	Full details about the changes in the B2B aseXML schema r36.
Shared Market Protocol Technical Guide	Provides participants with the technical specifications for the delivery of B2B Transactions to assist participants with developing their own systems to utilise the <i>B2B e-Hub</i> API Gateway.
B2B Validation Module software and guide	AEMO provides the Validation Module software to participants so they can do on-site transaction validations.



# 5 GLOSSARY

For easy reading, this technical specification is written in plain language. If there is a discrepancy between information or a term in this document, the Rules and procedures take precedence.

# Abbreviations

Abbreviation	Explanation
AEMC	Australian Energy Market Commission
B2B	Business-to-business. A Generic term used to refer to defined business-to-business interactions between participants. It excludes interactions between a participant and AEMO's market systems such as MSATS.
B2M	Business-to-market; Interactions between a participant and AEMO's market systems such as MSATS.
CUST	The Customer transaction group
CSDN	B2B Procedure: Customer Site Details Notification Process.
FRC	Full Retail Contestability
FTP	File Transfer Protocol
MDP	B2B Procedure: Meter Data Process.
MSATS	Market Settlement and Transfer Solution.
MTRD	The Meter Data transaction group
OWNP	The One-Way Notification Process transaction group
SITE	The Site Access transaction group
SMP	Shared Market Protocol
SORD	The Service Order transaction group
SSL	Secure Sockets Layer



# Special terms

Term	Definition
API Web Services Protocol	The new web services provided to support B2B messaging, offering an alternative to the current FTP interface.
aseXML	A standard developed by Australian energy industries to facilitate the exchange of information between energy industry participants. A set of schemas and usage guidelines defining how data is exchanged under FRC in the gas and electricity industries.
aseXML B2B Schema	Specification used to describe the structure of an aseXML Message.
B2B Acceptance	When used in the context of a B2B Transaction, indicates the B2B Recipient of the B2B Transaction has accepted it using a <b>BusinessAcceptance/Rejection</b> with an ase:Status of <b>Accept</b> .
B2B Acknowledgment	<ul> <li>A generic term referring to an aseXML-format Message or Transaction</li> <li>Acknowledgement, specifically within the context of a B2B interaction. A B2B</li> <li>Acknowledgement is the physical interpretation of a Business Signal. Often referred to as:</li> <li>Positive: Indicating correctness of the associated file.</li> <li>Negative: Indicating an error with the associated file.</li> </ul>
B2B Browser	The existing MSATS B2B Browser that is now part of the B2B e-Hub.
B2B Inbox	The file folder where participants publish B2B messages and acknowledgements for other participants.
B2B Initiator	Participant initiating a B2B Message.
B2B Message	A B2B Transaction or Acknowledgement sent between a B2B Initiator and a B2B Recipient.
B2B Message Acknowledgement	An aseXML realisation of a business receipt.
B2B Outbox	The file folder where FTP Hokey-pokey Protocol participants receive B2B messages and acknowledgements from other participants.
B2B Recipient	Participant receiving a B2B Transaction (sent by a B2B Initiator).
B2B Rejection	When used in the context of a B2B Transaction, indicates the B2B Recipient of the B2B Transaction has rejected it using a <b>BusinessAcceptance/Rejection</b> with an ase:Status of <b>Reject</b> .



Term	Definition
B2B Transaction	Facilitates the process of consumer connection point transfers and the management of <i>NMI Standing Data</i> .
B2B Transaction Acknowledgement	An aseXML realisation of a Business Acceptance/Rejection
B2B Transaction Group	The Transaction Group field in an aseXML Message.
B2B Transaction Group Protocol Preference	The preference a participant sets at a B2B Transaction Group level for their sending and receiving protocol: FTP or API. 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.
B2B Transforms	Participants can nominate the B2B aseXML schema release they want to use for receiving B2B transactions and acknowledgements.
C1 report	Data Replication Resynchronisation Report.
C7 report	New Participant Data Access.
Data Stream	A stream of metering data associated with a connection point, represented by a NMI. A NMI can have multiple Data Streams (e.g. from one or more meters, or from one or more channels or registers that comprise a single meter). Each Data Stream is identified by a unique suffix associated with the NMI.
B2B e-Hub	The existing MSATS B2B Browser, MSATS B2B Batch Handlers and the new e-Hub API Platform.
<i>B2B e-Hub</i> API Gateway	The new interface for participants to interact with B2B using web services.
<i>B2B e-Hub</i> API Portal	The new web interface for participants to view API details and manage API keys.
Enumerations	The Enumerations.xsd file containing acceptable aseXML attributes.
FTP Hokey-pokey Protocol	The existing B2B file FTP exchange protocol.
Interoperability	Refers to the different protocols participants can use to exchange B2B data, irrespective of the sender or receiver's B2B Transaction Group Protocol Preference: FTP or API.



Term	Definition
Meter Status Code	A single character code, indicating the status of the meter.
Network Tariff	The rate an NSP charges a <i>retailer</i> for the use of its <i>network</i> .
NMI Discovery	NMI Discovery is an MSATS function allowing participants to discover a customer's NMI and checksum or discover sufficient standing data about the NMI.
NMI Standing Data	Connection point data
NMI Status Code	A code identifying the status of a NMI, e.g. active or inactive.
Participant ID	Registered participant identifier
PMS Reports	Performance Monitoring System traffic light reports.
Read Type Code	A code required on change request records for change of retailer transactions, indicating whether the transfer is to occur on the NSRD or some other date (e.g. a previous read date).
Register Status Code	A single character code indicating if the register is active.
Stopbox	The file folder where participants receive stop and warning files.
Stop File	A file generated by the <i>B2B e-Hub</i> when a participant's FTP Outbox of queued messages exceeds the High Water Mark.
Stopped	Describes the state of a participant's Outbox if a Stop File is in place.
Validation Module	Software AEMO provides to participants so they can do on-site transaction validations.
Water Mark – High	The upper limit of the message queue scale. When a participant's message queue reaches a High Water Mark, a Stop File is generated.
Water Mark – Low	The lower limit of the message queue scale. If a Stop file is present, when a participant's message queue reaches a Low Water Mark the Stop File is removed.
Water Mark – Warn	A warning message advising the queue is reaching an upper limit.

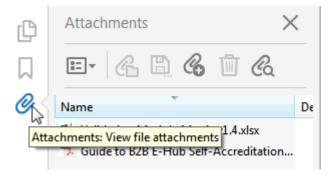




# Appendix A B2B Validation Module

#### A.1. Service Order transaction validations

See the spreadsheet attached to this document:





# Appendix B Guide to B2B e-Hub Self Accreditation

See the draft guide attached to this document:

