

MSATS 48.0 Technical Specification – September 2022

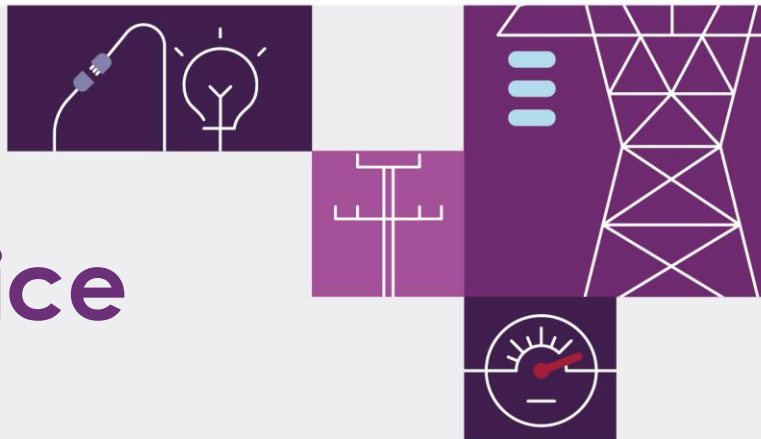
1.00 October 2022

Pre-production: Tuesday 27 September
2022

Production: Monday 7 November
2022

Release series: MSATS481122





Important notice

Purpose & audience

This document describes the technical changes required to participant's systems for the MSATS 48.0 Technical Specification – November 2022 (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 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.
- Unless otherwise stated, you can find resources mentioned in this guide on AEMO's website.
- **Text in this format** is a link to related information. Some links require access to MarketNet.
- **Text in this format**, indicates a reference to a document on [AEMO's website](#).
- **Text in this format** is an action to perform in the MSATS Web Portal.
- 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.
- Rules and Glossary Terms are capitalised and have the meanings listed against them in [the National Electricity Rules \(NER\)](#) and [Retail Electricity Market Glossary and Framework](#).

Privacy and legal notices

The material in this publication may be used in accordance with the [privacy and legal notices](#) on AEMO's website.

Trademark notices

Microsoft, Windows, and SQL Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

UNIX is a registered trademark of The Open Group in the US and other countries.

© 2015 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Distribution

Available to the public.

Document identification

Prepared by: AEMO Digital

Last update: Monday, 17 October 2022 4:36 PM

Version history

v1.00 See [Changes in this version](#).

Documents made obsolete

The release of this document changes only the version of MSATS 48.0 Technical Specification – October 2022.

Contact us

Support Hub: To contact AEMO's Support Hub use [Contact Us](#) on AEMO's website or Phone: 1300 AEMO 00 (1300 236 600) and follow the prompts.



Contents

1	Introduction	6
1.1	Audience.....	6
1.2	Objective	6
1.3	Status	6
1.4	Release dates	7
1.5	Version numbers	7
1.6	Changes in this version.....	7
1.7	Rule and procedure changes	7
1.8	Related technical specifications	8
1.9	Related software.....	8
1.10	Related documents	9
1.11	Approval to change	10
1.12	2022 Implementation Forum	10
1.13	MSUG meetings.....	11
1.14	Projects and enhancements.....	11
2	Proposed Timeline	13
3	Participant Impact	16
3.1	AseXML B2M schema	16
3.2	aseXML r42 application changes	16
3.3	B2B changes.....	16
3.4	B2M aseXML updates.....	16
3.5	B2M schema transforms	17
3.6	Blind update tool	17
3.7	Bulk data tool	17
3.8	CATS standing data.....	17
3.9	CATS Standing Data Access Rules.....	18
3.10	Change requests	19
3.11	CR validation logic.....	19
3.12	Inflight change requests	19
3.13	MSATS reports	20
3.14	NMI discovery search 2	20
3.15	NMID NMI Standing Data Request	20



3.16	Scripted updates	20
3.17	Update meter manufacturer and model enumerations	20
4	B2B	23
4.1	Validation module	23
4.2	B2B browser changes	25
5	CATS Standing Data.....	27
5.1	Removed standing data	27
5.2	New standing data	29
5.3	New meter register data	30
5.4	Standing data update details	31
5.5	BUT update field details	38
6	CATS Change Requests.....	41
6.1	Change request objections	41
6.2	Change request response	41
6.3	Change request status notification rules.....	42
7	CATS Change Reason Codes.....	44
7.1	Change reason code 6800 change	44
7.2	Standing data	44
7.3	Meter register.....	46
8	MSATS Validation	48
8.1	CR validation logic.....	48
8.2	Inbound change requests.....	49
8.3	Inflight change requests	54
9	MSATS Web Portal.....	57
9.1	NMI discovery type 1 search – house number to	57
9.2	Change Request – Main interface - NMI Meter Register – List items interface.....	58
9.3	Change Request – New/Edit – NMI Meter Register – View interface.....	59
9.4	Change Request – Change – Register Identifier.....	60
9.5	Change Request – [New/Edit] – Register Identifier.....	61
9.6	Change Request – New/Edit – NMI Standing Data interface.....	63
9.7	NMI Information > Obtain Standing Data – Results interface	65
9.8	NMI Information > Obtain Standing Data – Results - NMI Meter Registers – List interface.....	66
9.9	NMI Information> NMI Master > NMI Master – View interface	67
9.10	NMI Information > Point In Time NMI Master Summary interface	68



9.11	NMI Master > NMI Meter Register – View interface	69
9.12	Transactions > Change Request > Change Request – Summary interface	71
9.13	Rules maintenance	72
10	MSATS Reports	73
10.1	CATS C1, C4, C7, and snapshot reports	73
10.2	B2M schema transforms	74
10.3	aseXML elements	74
10.4	C1 report	75
10.5	C4 report	76
10.6	C7 report	76
10.7	Snapshot report.....	77
11	User Rights Management (URM).....	78
12	FAQs	79
12.1	Can I submit new Standing Data before the Release Dates	79
12.2	When do CR validation rules start.....	79
13	Implementation	80
13.1	Key considerations	80
13.2	Upgrade options	80
13.3	Risks.....	80
14	Terms	81
14.1	Rules and procedure terms.....	81
14.2	Glossary	82
15	References	84
16	Index	85
A1.	Version History.....	86
A2.	Scripted Updates.....	87

1 Introduction

1.1 Audience

AEMO provides this information as a service targeting business analysts and IT staff in participant organisations.

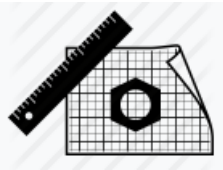
For details about MSATS functionality, see [Technical Guide to MSATS](#).

1.2 Objective

The MSATS 48.0 Technical Specification – November 2022 (Release) describes the projects and enhancements planned by AEMO from a participant perspective and includes the related changes to participants' IT systems.

1.3 Status

This version is for information only. The design is not ready for participant builds.

Version	Status
1.01	Correction of the BUT configuration for METER_MODEL and MSATS Browser 'NMI Meter Registers – List interface'. Clarification added for NMID for Unstructured AddressLine and GPS Coordinates Latitude and Longitude.
1.00	PreProd Release version presenting the MSATS Standing data review phase 2 evolving design
0.04	Draft presenting the MSATS Standing data review phase 2 evolving design
	 Under construction

1.4 Release dates

Scheduled for implementation in:

- Pre-production: Tuesday 27 September 2022
- Production: Monday 7 November 2022

1.5 Version numbers

AEMO releases new versions of this document as the technical requirements are streamlined.

Incremental version numbers such as 0.01, 1.01, 2.01 and so on mean a draft version or a small change to the technical specification.

Major version numbers such as 1.00, 2.00 means there are substantial changes to the technical specification. Participants must carefully review the changes detailed in this Release.

1.6 Changes in this version

- Pre-production **Release Date** moved to Tuesday 27 September 2022.
- More information about:
 - **Standing Data update fields**
 - **BUT update field details**
- Added **NMI discovery type 1 search – house number to**.

1.7 Rule and procedure changes

Title	Version	Effective
Standing Data for MSATS	5.31	7 November 2022
MSATS Procedures - CATS Procedure Principles And Obligations	5.31	7 November 2022
MSATS Procedures - Procedure For The Management Of Wholesale, Interconnector, Generator And Sample (WIGS) NMIs	5.31	7 November 2022



1.8 Related technical specifications

Title	Description
MSATS 47.1 technical specification	<p>B2M Electricity aseXML Schema r42 phase 1 and phase 2 details</p> <p>Global Settlement, MSATS Standing Data Review (MSDR), Metering Coordinator Planned Interruptions (MCPI)</p> <p>The HouseNumberToSuffix field is updated as not required. It is a schema item only. No procedural requirement. The ASWG identified the addition of the HouseNumberToSuffix as an element aligned with the HouseNumberTo concept</p>
MSATS 47.2 technical specification	<p>Blind Update Tool</p> <p>The Blind Update Tool is a new tool participants can use to submit a csv formatted payload for the initial population of new CATS Standing Data fields.</p> <p>Consumer Data Right (CDR)</p> <p>User rights entity for the CDR API and endpoints for Retailers to request standing data, meter data, and distributed energy resource (DER) data to fulfil data requests from Accredited Data Recipients (ADRs).</p>

1.9 Related software

B2B Validation Module Software	A validation application participants can embed in their B2B systems allowing validation of an XML file before it is deployed to the MSATS B2B Web Portal	In progress
---------------------------------------	---	-------------

1.10 Related documents

These guides and resources are updated according to this technical specification and published for the pre-production Release Date. Once published, they are primary resources and take precedence over this document.

Title	Description	Status
B2B Validation Module Matrix	Validates conformance with B2B Service Order requests	In progress
B2M Mapping to aseXML	New guide detailing the mapping between the MSATS B2M procedures and the aseXML schema	In progress
Blind Update Tool API Reference	Updated with Blind Update Tool APIs	Published Requires access to MarketNet
Guide to B2B Validation Module Software	Installation guide for the Validation Module software	In progress
Guide to CSV Data Format Standard	Updated with new fields required for the Blind Update Tool (BUT)	Draft published Requires access to MarketNet
Guide to MSATS reports	Updated with changes to MSATS C1 report and information about the Snapshot report	In progress
Guide to MSATS Web Portal Guide to Web Blind Update Tool	Updated with: - Using the Blind Update Tool (BUT) interface - How to construct payloads for the web and API interfaces. - Blind Update Tool (BUT) validation matrix	Published Requires access to MarketNet
Guide to User Rights Management	Updated with new URM entity for the Blind Update Tool	In progress
MSDR Data Transition Table	Full list of new or amended Standing Data fields and the update option	Published
Technical Guide to MSATS	Updated to include information about the Blind Update Tool (BUT) and Snapshot report	In progress
Update MSATS Meter Register Enumerations	Meter Data Code groups, Meter Data csv enumeration lists for copying to your environment, and a Meter Data Information Update Request to add Meter Data enumerations	Published Requires access to MarketNet



1.11 Approval to change

No approval or agreement to change required from participant change controllers. Agreement was sought in the **2022 Implementation Forum**.

1.12 2022 Implementation Forum

The **2022 Implementation Forum** coordinates readiness activities for the MSATS Standing Data Review (MSDR) and B2B 3.7 program releases. For details about the forum contact gmsdr@aemo.com.au.

1.12.1 Purpose

A forum for the Energy Industry and AEMO to consider key milestones, transitions, and mechanisms associated with the successful implementation of MSDR and B2B v3.7. The focus is on areas directly impacted by these projects.

1.12.2 Membership

Open to all participants.

1.12.3 Prerequisites

Familiarity with MSDR and B2B concepts and requirements.

1.12.4 Meeting frequency

As required (usually monthly).

1.12.5 Communication

Participants can send proposed agenda items, questions or comments to gmsdr@aemo.com.au.



1.13 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 for a project 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)**.

1.14 Projects and enhancements

1.14.1 MSATS Standing Data Review (MSDR)

The MSDR project implements a large number of changes to MSATS Standing Data fields, including amendments and removal of existing fields, and additional new fields.

1.14.2 B2B v3.7

Changes for PersonName fields.



MSDR focused MSATS releases

01-MAY-2022

MSATS 47.1

Global Settlements

- Configuration of "GLOPOOL" Participant IDs
- New CR rejection logic for Participant IDs

MSATS Standing Data Review Phase 1

- aseXML r42 release.
- New SharedIsolationPointFlag to support MCPI.
- SharedIsolationPointFlag mandatory for CR2000 series.
- Ability to view MSDR phase 1 Standing Data using NMI Discovery, CATS Reports (C1, C4, C7), MSATS Snapshot Report

07-NOV-2022

MSATS 48.00

MSATS Standing Data Review Phase 2

- New, Amended, Retirement NMI/Meter Register/Register Identifier MSDR Standing Data implemented.
- CRs where deprecated fields have been provided to be rejected.
- Validation of new enumerated values for Standing Data.
- ConnectionConfiguration mandatory for CR2000 series.
- Manufacturer, Model, Use mandatory for CRs 3000, 3001, 2500, 2501, 2520, 2521.
- Ability to view MSDR phase 2 Standing Data using NMI Discovery, CATS Reports (C1, C4, C7), MSATS Snapshot Report

B2B v3.7

- PersonNameTitle and PersonNameGiven become optional fields when PersonName is populated.

07-NOV-2023

MSDR Industry Led Agreement 1 Ends

- ConnectionConfiguration mandatory for CR5000 series.
- Manufacturer, Model, Use mandatory for:
 - CRs 3004, 3005, 3050, 3051 3080, 3081, 3090, 3091 where Meter Status is 'C'
- UnstructuredAddress no longer searched when undertaking NMI Discovery or returned for CATS Reports (C1, C4, C7), MSATS Snapshot Report

Blind Update Tool (BUT)

- Ability to submit values for nominated Standing Data items as a BUT Submission via Markets Portal.
- Ability to download BUT Submission responses via Markets Portal.
- C1 Report Updates to include BUT updated NMI records.

MSATS 47.2

2-AUG-2022

MCPI Compliance Holiday Ends

01-MAY-2023

- SharedIsolationPointFlag mandatory for CR5000 series.

2 Proposed Timeline

Milestone	Date	Description
Approval required	n/a	AEMO sought approval in the 2022 Implementation Forum
MSDR Focus Group	Monday 22 August 2022	<p>Industry forum for participants and AEMO to consider key milestones, transitions, and mechanisms associated with the successful implementation of MCPI and MSDR</p> <p>Please provide proposed agenda items or questions to gmsdr@aemo.com.au</p> <p>This date is an indication only. Meeting requests and agendas take precedence</p>
B2M aseXML schema r42 submissions	1 May 2022	B2M aseXML draft schema r42 effective
MSATS pre-production refresh	<p>Completed: Thursday 24 February 2022 – Tuesday 1 March 2022</p> <p>Available Wednesday 2 March 2022</p>	<p>Refresh of the pre-production systems with data refreshed from the production system Monday 21 February 2022</p> <p>An outage can occur to the pre-production environment during this period. Participant access is not restricted, however, AEMO do not guarantee the pre-production data content or system availability. During the refresh, access to other AEMO systems such as AWEFS, EMMS, OPDMS, and STTM etc. may be intermittently affected</p>
Revised Technical Specification	September 2022 (TBC)	Usually monthly if required, with further details of the changes as the design evolves.
MSUG pre-release review	20 September 2022	<p>Market Systems User Group Meeting (MSUG) to review the technical specification and ask AEMO technical SMEs questions</p> <p>This date is tentative. The project manager will provide an invitation one week prior to the meeting</p>
Pre-production implementation	<p>Monday 26 September 2022 – Monday 26 September 2022</p> <p>13:00</p>	<p>AEMO implements components of the Release to pre-production for participant testing</p> <p>AEMO has full access to the system during this period</p> <p>Participant access is not restricted; however, the data content or system availability is not guaranteed</p>
Pre-production CR validations commence	<p>Wednesday 28 September 2022</p> <p>00:01</p>	<p>AEMO rejects CRs with removed Standing Data items.</p> <p>AEMO validates CRs with new Standing Data items.</p>
Pre-production systems available	<p>Tuesday 27 September 2022</p> <p>15:00</p>	Testing period begins for participants. AEMO assistance available if required

Proposed Timeline

Milestone	Date	Description
B2B validation module software available	Tuesday 27 September 2022	A validation application participants can embed in their B2B systems allowing them to validate an XML file before it is deployed to MSATS B2B
Related Documents publication	Tuesday 27 September 2022	Release of guides and resources mentioned in Related documents on page 9
Industry testing	None	AEMO coordinated testing with participants
Production implementation	Sunday 30 October 2022 – Sunday 6 November 2022 (TBC) Time to be confirmed	AEMO implements the release to production
Production CR validations commence	Monday 7 November 2022 00:01	AEMO rejects CRs with removed Standing Data items. AEMO validates CRs with new Standing Data items.
Production systems available	Monday 7 November 2022	Production systems available to participants
MSUG pre-production review	18 October 2022	MSUG to review the implementation of this production release and ask AEMO technical SMEs questions This date is tentative. The project manager will provide an invitation one week prior to the meeting.
MSUG: post-production review	21 November 2022	Market Systems User Group Meeting (MSUG) to review the implementation of this pre-production release and ask AEMO technical SMEs questions This date is tentative. The project manager will provide an invitation one week prior to the meeting
MCPI compliance holiday finishes	Monday 1 May 2023	A specific time period where AEMO has granted temporary relief to participants to comply with procedural obligations
MSDR compliance holiday finishes (exc. GPS)	Tuesday 7 November 2023	
GPS compliance holiday finishes	Friday 7 November 2025	
BUT implementation		

Proposed Timeline

**Scripted update
runs**

3 Participant Impact

3.1 AseXML B2M schema

There is no B2M aseXML schema change for this release. The B2M aseXML schema remains at r42.

3.2 aseXML r42 application changes

Application changes supporting aseXML B2M schema r42 are implemented in this Release:

- **CATS Change Requests**
- CATS Notifications
- **NMI Discovery search 2**
- **CATS Reports generated by AEMO**

3.3 B2B changes

1. New Validation Module Software.
2. Updated Validation Module Matrix
3. B2B Browser interface changes for the PersonName group.

For details, see **B2B**.

3.4 B2M aseXML updates

For aseXML r42 schema details, see **MSATS 47.1 technical specification**.

3.5 B2M schema transforms

The new **Standing Data** items are removed from the NMI Standing Data Response for participants having a B2M aseXML schema preference lower than r42. MSATS includes a comment flagging the removal in the transformed aseXML payload.

3.6 Blind update tool

The BUT payload format must be CSV (comma delimited) (*.csv). AEMO rejects files saved as CSV UTF-8 (comma delimited) (*.csv).

For details about the Blind Update Tool, see [MSATS 47.2 technical specification](#).

Purpose	Procedural obligations	Data history	CATS notifications	Data synchronisation	Used by
<p>Tool to submit a csv formatted payload for the initial population of new CATS Standing Data fields</p> <p>For details, see Blind Update Tool (BUT)</p>	✓	Blind, the History Model is not updated	✗	C1 report Snapshot report	Participants

3.7 Bulk data tool

The Bulk Data Tool (BDT) reflects new Standing Data items.

3.8 CATS standing data

New, amended, and retired NMI, Meter Register, and Register Identifier **CATS Standing Data** implemented.

You can view new Standing Data using these interfaces:

- NMI Discovery
- CATS Reports (C1, C4, C7)
- C4 NMI Master Transaction Response
- C1 Data Replication Resynchronisation Transaction Response
- C7 New Participant Access Report Transaction Response.
- Snapshot Report

3.8.1 Obtain new CATS standing data

To obtain a NMI's current value and current meter configuration for new **CATS Standing Data** items, participants must have their **B2M aseXML schema preference set to aseXML.r42 or later** and have one of the following:

- Be nominated for a role for the NMI within a CR1000 series that is REQ, PEND, OBJ.
- Be nominated for a role for the NMI within a CR6000 series that is REQ, PEND, OBJ.
- Have a relationship with a NMI according to the Standing Data Access Rules.

3.9 CATS Standing Data Access Rules

The new Standing Data items are accessible for these Roles with a relationship to the NMI.

Item	Jurisdiction	Standing data access rights									
		FRMP	LR	LNSP	MDP	MPB	MPC	RP	RoLR	NEMM	NSP2
ConnectionConfiguration	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
GNAFPID	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
SectionNumber	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
DPNumber	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
HouseNumberTo	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
GPSCoordinatesLat	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GPSCoordinatesLong	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CurrentTransformerAccuracyClass	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
CurrentTransformerLocation	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
CurrentTransformerRatioAvailable	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
CurrentTransformerRatioConnected	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓

Item	Jurisdiction	Standing data access rights									
		FRMP	LR	LNSP	MDP	MPB	MPC	RP	RoLR	NEMM	NSP2
CurrentTransformerTest	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
CurrentTransformerTestDate	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
CurrentTransformerType	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
TestResult	All	✓	✗	✗	✓	✓	✓	✓	✗	✓	✗
VoltageTransformerAccuracyClass	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
VoltageTransformerLocation	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
VoltageTransformerRatio	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
VoltageTransformerTest	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
VoltageTransformerTestDate	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
VoltageTransformerType	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓

3.10 Change requests

For details about changes, see [Change Requests](#).

3.11 CR validation logic

- AEMO validates CRs with new Standing Data items.
- AEMO rejects CRs with removed Standing Data items.

3.12 Inflight change requests

For details and scenarios, see [Inflight change requests](#) (in progress)

3.13 MSATS reports

Removed [CATS Standing Data](#) items no longer display in MSATS reports if the **CATS Report Request** is submitted after the [Release Dates](#).

For more details about MSATS report changes, see [MSATS Reports](#).

3.14 NMI discovery search 2

New Standing Data items are available in the NMI Discovery Search 2. Where a NMI does not have a value for a [new NMI Standing Data](#) item, the NMISTandingDataResponse does not contain the NMI Standing Data element.

3.15 NMID NMI Standing Data Request

Where a NMI currently has a value for one of the [new Standing Data](#) items, participants can submit an NMID NMI Standing Data Request transaction and receive a NMI Standing Data Response, including the NMI Standing Data element and value, where:

1. The participant has a relationship to the NMI according to the CATS Standing Data Access Rules and with a B2M CATS schema preference set to aseXML r42 or later.
2. The participant has a role allowing them to request a NMI Discovery Search 2 and with a B2M CATS schema preference set to aseXML r42 or later.

3.16 Scripted updates

This is for information only. Scripted updates are not part of this Release.

Scripted update mappings are based on an industry wide view of data in CATS tables and are executed at a date agreed to by the Energy Industry. Participant's systems may differ, so individual participant impact may differ. For more detail, see [Scripted Updates](#).

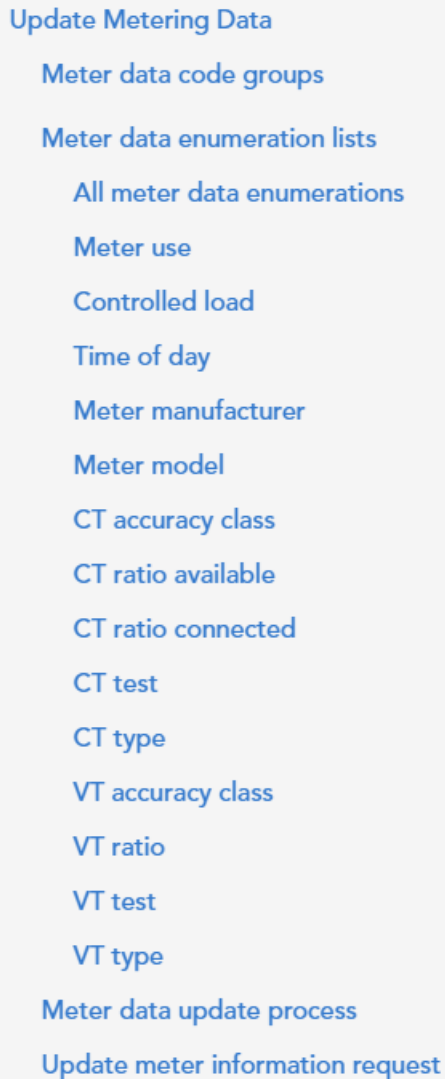
3.17 Update meter manufacturer and model enumerations

So participants can validate the enumerations against the procedures, a list of enumerations with code groups and descriptions is published in the [MSATS online help > Metering Data > Update Manufacturer and Model](#).

Below is the ERCF process to copy and request Meter manufacturer and model enumerations updates.

3.17.1 Copy meter data enumerations

1. Over MarketNet, access **MSATS online help > Metering Data > Update Manufacturer and Model**.
2. Click one of the code groups to copy to your csv file.



Update Metering Data

- Meter data code groups
 - Meter data enumeration lists
 - All meter data enumerations
 - Meter use
 - Controlled load
 - Time of day
 - Meter manufacturer
 - Meter model
 - CT accuracy class
 - CT ratio available
 - CT ratio connected
 - CT test
 - CT type
 - VT accuracy class
 - VT ratio
 - VT test
 - VT type
 - Meter data update process
 - Update meter information request

3.17.2 Request a meter data enumeration update

1. Over MarketNet, access **MSATS online help > Metering Data > Update Manufacturer and Model**.
2. Click Update meter information request.
3. Complete and submit the form.
4. AEMO notifies the ERCF via the existing mailing list a summary of the changed items.

5. Unless objected to, AEMO updates the enumerations list in the Markets Portal Help within 5 business days.

Update meter information request

Update Meter Information Request

Complete this form to request a new, amended, or removed enumeration value.
The form takes approximately 5 minutes to complete.

* Required

1. Full name *

Enter your answer

2. Job position *

Enter your answer

3. Participant name *

Enter your answer

4 B2B

4.1 Validation module

The B2B Validation Module treats **PersonNameTitle** and **PersonNameGiven** as optional fields for the following reference elements, using the **PersonName** element:

- CustomerName
- BusinessContactName
- CoordinatingContactName
- CoordinatedBusinessContactName
- InitiatorContactName
- REC-Name
- RecipientContactName

4.1.1 Service order and customer details validations

For each Service order (SORD) and Customer Details (CUST) validations, the B2B Validation Module conforms with the specifications in the table below.

The validations ensure:

- All mandatory fields for the service order type or subtype are provided.
- The Service Order subtype is correct for the Service Order type
- All field values and data format are correct.
- Allowed values are used for enumerated fields.
- The fields with cross dependencies are provided as defined in the Validations column.

			Supply Service Works Allocate NMI	Supply Service Works Establish T/TPP	Supply Service Works Supply Alteration	Supply Service Works Temp Isolation	Supply Service Works Supply Abolishment	Re-energisation	De-energisation	Special Read	Metering Service Works Install Meter	Metering Service Works Move Meter	Metering Service Works Exchange Meter	Metering Service Works Remove Meter	Metering Service Works Install CL	Metering Service Works Meter Reconfig	Metering Service Works Meter Investigate, Change Timeswitch, Reseal Device	Miscellaneous	Customer Details Notification
PersonName Group	Business Contact Name	N/A	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	Coordinating Contact Name	N/A	O	O	O	O	N/A	N/A	N/A	O	O	O	O	O	O	O	N/A	N/A	
	Coordinating Business Contact Name	N/A	M	M	N/A	N/A	N/A	N/A	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	O	N/A	
	Customer Contact Name	N/A	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	Initiator Contact Name	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	N/A
	REC Name	O	M	M	N/A	N/A	N/A	N/A	N/A	M	N/A	N/A	N/A	N/A	N/A	N/A	O	N/A	

M Mandatory
 O Optional
 N/A PersonName element not avail

4.2 B2B browser changes

4.2.1 New Transaction interface changes

Service order

In the Service Order New Transaction interface **Name Title** and **Given Name** are optional when populating the following fields in the PersonName group:

- Business Contact Name
- Coordinating Contact Name
- Coordinating Contact Name
- Customer Contact Name
- Initiator Contact Name
- REC Name

Customer Details

In the Customer Details New Transaction interface **Name Title** and **Given Name** are optional when populating the following fields in the PersonName group:

- Customer Contact Name
- Business Contact Name

NM1 (*) :

Customer Contact Name

Name Title:

Given Name:

Name Type:

Email Address:

Business Contact Name

Name Title:

Given Name:

Name Type:

Business Name:

Phone Numbers

5 CATS Standing Data

Phase 2 updates to CATS Standing Data, supporting the Standing Data items identified in the MSDR industry consultation.

5.1 Removed standing data

Field	Category
Additional Site Information	General Metering Installation Information
Asset Management Plan	General Metering Installation Information
Calibration Tables	General Metering Installation Information
Communication Protocol	Meter Communications Information
Communications Equipment Type	Meter Communications Information
Data Conversion	Meter Communications Information
Data Validations	Meter Read Estimation Information
Demand 1	Register Identifier
Demand 2	Register Identifier
Estimation Instructions	Meter Read Estimation Information
Measurement Type	Meter Read Estimation Information

CATS Standing Data

Field	Category
Meter Constant	General Metering Installation Information
Meter Point	General Metering Installation Information
Meter Program	General Metering Installation Information
Meter Route	General Metering Installation Information
Meter Test & Calibration Program	General Metering Installation Information
Meter Test Result Notes	General Metering Installation Information
Next Test Date	General Metering Installation Information
Passwords	Meter Communications Information
Remote Phone Number	Meter Communications Information
Test Performed By	General Metering Installation Information
Test Result Accuracy	
Transformer Location	Transformer Information
Transformer Ratio	Transformer Information
Transformer Type	Transformer Information
User Access Rights	Meter Communications Information

5.2 New standing data

For these new Standing Data items, a value supplied in a completed (COM) 2XXX and 5XXX series CR is stored:

- ConnectionConfiguration
- DPNumber
- GNAFPID
- HouseNumberTo
- SectionNumber

5.3 New meter register data

For these new Meter Register Data items, a value supplied in a completed (COM) 2XXX, 3XXX and 5XXX series CR is stored:

- CurrentTransformerAccuracyClass
- GPSCoordinatesLong
- CurrentTransformerLocation
- TestResult
- CurrentTransformerRatioAvailable
- VoltageTransformerAccuracyClass
- CurrentTransformerRatioConnected
- VoltageTransformerLocation
- CurrentTransformerTest
- VoltageTransformerRatio
- CurrentTransformerTestDate
- VoltageTransformerTest
- CurrentTransformerType
- VoltageTransformerTestDate
- GPSCoordinatesLat
- VoltageTransformerType

5.4 Standing data update details

For more details, see [Standing Data for MSATS](#). For generic field names, see [Generic field names for CATS_NMI_DATA](#).

Legend | A: Amended | BUT: Blind Update Tool | C: Conditional | CR: Change Request | E: Existing | M: Mandatory | N: New | O: Optional | R: Required | SU: Scripted Update

Field	Type	Status	Update by	CATS table	DB data type	aseXML data type	aseXML path	Provider	Transition end
Building or Property Name	A	R	CR BUT	NMI_DATA	VARCHAR2(30)	xsd:string maxLen = 30	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ AustralianBuildingOrPropertyName	LNSP	30 Jun 23
Connection Configuration	N	M	CR BUT	NMI_DATA	VARCHAR2(2)	xsd:string maxLen = 2	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ ConnectionConfiguration	LNSP	7 Nov 23
Controlled Load	A	M	CR SU	REGISTER _IDENTIFIER	VARCHAR2(100)	xsd:string maxLen = 100	Electricity_r42.xsd ElectricityMeterRegisterDetail/	MP AEMO	30 Jun 23
Current Transformer Accuracy Class	N	R	CR BUT	METER _REGISTER	VARCHAR(50)	xsd:string maxLen = 50	Electricity_r42 ElectricityMeter/ CurrentTransformerAccuracyClass	MP	7 Nov 23

Current Transformer Location	N	R	CR BUT	METER _REGISTER	VARCHAR(50)	xsd:string maxLen = 50	Electricity_r42 ElectricityMeter/ CurrentTransformerLocation	MP	7 Nov 23
Current Transformer Ratio Available	N	R	CR BUT	METER _REGISTER	VARCHAR(50)	xsd:string maxLen = 50	Electricity_r42 ElectricityMeter/ CurrentTransformerRatioAvailable	MP	7 Nov 23
Current Transformer Ratio Connected	N	R	CR BUT	METER _REGISTER	VARCHAR(20)	xsd:string maxLen = 50	Electricity_r42 ElectricityMeter/ CurrentTransformerRatioConnected	MP	7 Nov 23
Current Transformer Test	N	R	CR BUT	METER _REGISTER	VARCHAR(20)	xsd:string maxLen = 20	Electricity_r42 ElectricityMeter/ CurrentTransformerTest	MP	7 Nov 23
Current Transformer Test Date	N	R	CR BUT	METER _REGISTER	DATE	xsd:date	Electricity_r42 ElectricityMeter/ CurrentTransformerTestDate	MP	7 Nov 23
Current Transformer Type	N	R	CR BUT	METER _REGISTER	VARCHAR(20)	xsd:string maxLen = 20	Electricity_r42 ElectricityMeter/ CurrentTransformerType	MP	7 Nov 23
Delivery Point Identifier	A	R	CR	NMI_DATA	Non-negative integer	Min: 10000000 Max: 99999999	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ DeliveryPointIdentifier	AEMO only	30 Jun 23
DPNumber	N	R: NSW/ACT	CR BUT	NMI_DATA	Varchar2(20)	xsd:string maxLen = 20	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ DPNumber	LNSP	7 Nov 23

Feeder Class	A	R	CR BUT	NMI_DATA	Varchar2(20)	xsd:string maxLen = 20	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ FeederClass	LNSP	7 Nov 23
Flat Or Unit Number	A	R	CR BUT	NMI_DATA	Varchar2(7)	xsd:string maxLen = 7	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ FlatOrUnitNumber	LNSP	30 Jun 23
Flat Or Unit Type	A	R	CR BUT	NMI_DATA	Varchar2(4)	xsd:string maxLen = 4	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ FlatOrUnitType	LNSP	30 Jun 23
Floor Or Level Number	A	R	CR BUT	NMI_DATA	Varchar2(5)	xsd:string maxLen = 4	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ FloorOrLevelNumber	LNSP	30 Jun 23
Floor Or Level Type	A	R	CR BUT	NMI_DATA	Varchar2(2)	xsd:string maxLen = 2	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ FloorOrLevelType	LNSP	30 Jun 23
GNAFPID	N	R	CR	NMI_DATA	Varchar2(20)	xsd:string maxLen = 20	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ GNAFPID	AEMO only	30 Jun 23

GPS Coordinates Lat	N	C	CR BUT	METER _REGISTER	NUMERIC (s2.7)	xsd:decimal minIncl = 0 maxIncl = 99.9999999 totdig = 2 fracedig = 7	Electricity_r42 ElectricityMeter/ GPSCoordinates	MP	7 Nov 25
GPS Coordinates Long	N	C	CR BUT	METER _REGISTER	NUMERIC (s3.7)	xsd:decimal minIncl = 0 maxIncl = 99.9999999 totdig = 3 fracedig = 7	Electricity_r42 ElectricityMeter/ GPSCoordinates	MP	11 Jul 25
Hazard	A	R	CR	METER _REGISTER	VARCHAR2(12)	maxLength = 100	Electricity_r42 ElectricityMeter /Hazard	MP	7 Nov 23
House Number	A	R	CR BUT	NMI_DATA	NUMBER(99999)	xsd:nonNegativeInteger maxIncl = 99999	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ HouseNumber	LNSP	30 Jun 23
House Number Suffix	A	R	CR BUT	NMI_DATA	VARCHAR2(1)	xsd:string maxLen = 1	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ HouseNumberSuffix	LNSP	30 Jun 23
House Number To	A	R	CR BUT	NMI_DATA	NUMBER(99999)	xsd:nonNegativeInteger maxIncl = 99999	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ HouseNumberTo	LNSP	30 Jun 23
Last Test Date	A	R	CR	METER _REGISTER	DATE	xsd:date	Electricity_r42 ElectricityMeter/LastTestDate	MP	7 Nov 23
Location	A	R	CR	METER _REGISTER	VARCHAR2(50)	maxLength = 200	Electricity_r42 ElectricityMeter/ Location	MP	7 Nov 23
Location Descriptor	A	R	CR BUT	NMI_DATA	VARCHAR2(200)	xsd:string maxLen = 200	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ LocationDescriptor	LNSP	30 Jun 23

Lot Number	A	R	CR BUT	NMI_DATA	VARCHAR2(6)	xsd:string maxLen = 6	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ LotNumber	LNSP	30 Jun 23
Manufacturer	A	M	CR BUT	METER _REGISTER	VARCHAR2(15)	xsd:string maxLen = 15	Electricity_r42 ElectricityMeter/ Manufacturer	MP	7 Nov 23
Model	A	M	CR BUT	METER _REGISTER	VARCHAR2(12)	xsd:string maxLen = 12	Electricity_r42 ElectricityMeter/ Model	MP	7 Nov 23
Meter Malfunction Exemption Expiry Date	N	R	CR	NMI_DATA	DATE	xsd:date	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ MeterMalfunctionExemptionExpiryDate	AEMO only	30 Jun 23
Meter Malfunction Exemption Number	N	R	CR	NMI_DATA	n/a	MeterMalfunctionExemptionNumber	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ MeterMalfunctionExemptionNumber	AEMO only	30 Jun 23
Additional Site Information	A	R	CR	REGISTER _IDENTIFIER	Varchar2(100)	xsd:AdditionalSiteInformation	ElectricityMeter/ AdditionalSiteInformati on	MP	7 Nov 23
Next Scheduled Read Date	A	M: manually read R: Type 7	CR	METER _REGISTER	DATE	xsd:date	Electricity_r42 ElectricityMeter/ NextScheduledReadDate	MP	30 Jun 23
Section Number	N	R: NSW/ACT	CR BUT	NMI_DATA	Varchar2(20)	xsd:string maxLen = 20	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ SectionNumber	LNSP	7 Nov 23

Shared Isolation Point Flag	N	R	CR BUT	NMI_DATA	Varchar2(1)	xsd:string maxLen = 1	ElectricityMasterStandingData_r42 SharedIsolationPointFlag	LNSP	1 May 2023
Street Name	A	R	CR BUT	NMI_DATA	Varchar2(30)	xsd:string maxLen = 20	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ StreetName	LNSP	30 Jun 23
Street Suffix	A	R	CR BUT	NMI_DATA	Varchar2(2)	xsd:string maxLen = 2	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ StreetSuffix	LNSP	30 Jun 23
Street Type	A	R	CR BUT	NMI_DATA	Varchar2(4)	xsd:string maxLen = 4	ElectricityMasterStandingData_r42 ElectricityNMIMasterGroup/ StreetType	LNSP	30 Jun 23
Test Result	A	R	CR	METER _REGISTER	VARCHAR2(4)	xsd:string maxLen = 4	Electricity_r42 ElectricityMeter/ TestResult	MP	7 Nov 23
Time Of Day	A	M	CR SU	REGISTER _IDENTIFIER	VARCHAR2(10)	xsd:string maxLen = 10	CATSTableReplication_r42 ElectricityNMIMeterRegisterGroup	MP AEMO	30 Jun 23
Use	A	M	CR BUT	METER _REGISTER	VARCHAR2(10)	xsd:string maxLen = 10	Electricity_r42 ElectricityMeter/ Use	MP	30 Jun 23
Voltage Transformer Accuracy Class	N	R	CR BUT	METER _REGISTER	VARCHAR(20)	xsd:string maxLen = 20	Electricity_r42 ElectricityMeter/ VoltageTransformerAccuracyClass	MP	7 Nov 23
Voltage Transformer Location	N	R	CR BUT	METER _REGISTER	VARCHAR(50)	xsd:string maxLen = 50	Electricity_r42 ElectricityMeter/	MP	7 Nov 23

							VoltageTransformerLocation		
Voltage Transformer Ratio	N	R	CR BUT	METER _REGISTER	VARCHAR(50)	xsd:string maxLen = 50	Electricity_r42 ElectricityMeter/ VoltageTransformerRatio	MP	7 Nov 23
Voltage Transformer Test	N	R	CR BUT	METER _REGISTER	VARCHAR(20)	xsd:string maxLen = 20	Electricity_r42 ElectricityMeter/ VoltageTransformerTest	MP	7 Nov 23
Voltage Transformer Test Date	N	R	CR BUT	METER _REGISTER	DATE	xsd:date	Electricity_r42 ElectricityMeter/ VoltageTransformerTestDate	MP	7 Nov 23
Voltage Transformer Type	N	R	CR BUT	METER _REGISTER	VARCHAR(50)	xsd:string maxLen = 50	Electricity_r42 ElectricityMeter/ Voltage Transformer Type	MP	7 Nov 23

5.5 BUT update field details

This table describes the BUT updatable fields and details.

- NEW NOT NULL: Submitted value cannot be NULL
- BUT ONCE: Field can only be updated once
- CURRENT IS NULL: Will update where the current value is NULL or not NULL

BUT Field ID	Field	CATS table	Group	BUT ONCE	CURRENT IS NULL	NEW NOT NULL
BUILDING_NAME	Building Or Property Name	NMI_DATA	Address	✓	✗	✗
CONNECTION_CONFIGURATION	Connection Configuration	NMI_DATA	NMI Site	✓	✗	✓
CT_ACCURACY_CLASS	Current Transformer Accuracy Class	METER_REGISTER	CT Group	✓	✗	✓
CT_LOCATION	Current Transformer Location	METER_REGISTER	CT Group	✓	✗	✓
CT_RATIO_AVAILABLE	Current Transformer Ratio Available	METER_REGISTER	CT Group	✓	✗	✓
CT_RATIO_CONNECTED	Current Transformer Ratio Connected	METER_REGISTER	CT Group	✓	✗	✓
CT_TEST	Current Transformer Test	METER_REGISTER	CT Group	✓	✗	✓
CT_TEST_DATE	Current Transformer Test Date	METER_REGISTER	CT Group	✓	✗	✓
CT_TYPE	Current Transformer Type	METER_REGISTER	CT Group	✓	✗	✓
DP_NUMBER	DPNumber	NMI_DATA	NMI Allocate	✓	✗	✓
FEEDER_CLASS	Feeder Class	NMI_DATA	NMI Location	✓	✗	✓

BUT Field ID	Field	CATS table	Group	BUT ONCE	CURRENT IS NULL	NEW NOT NULL
FLAT_NUMBER	Flat Or Unit Number	NMI_DATA	Address	✓	✗	✗
FLAT_TYPE	Flat Or Unit Type	NMI_DATA	Address	✓	✗	✗
FLOOR_NUMBER	Floor Or Level Number	NMI_DATA	Address	✓	✗	✗
FLOOR_TYPE	Floor Or Level Type	NMI_DATA	Address	✓	✗	✗
LATITUDE	GPS Coordinates Lat	METER_REGISTER	NMI Location	✓	✓	✓
LONGITUDE	GPS Coordinates Long	METER_REGISTER	NMI Location	✓	✓	✓
HOUSE_NUMBER	House Number	NMI_DATA	Address	✓	✗	✗
HOUSE_NUMBER_SUFFIX	House Number Suffix	NMI_DATA	Address	✓	✗	✗
HOUSE_NUMBER_TO	House Number To	NMI_DATA	Address	✓	✗	✗
LOCATION_DESCRIPTOR	Location Descriptor	NMI_DATA	Address	✓	✗	✗
LOT_NUMBER	Lot Number	NMI_DATA	Address	✓	✗	✗
METER_MANUFACTURER	Manufacturer	METER_REGISTER	Meter	✓	✗	✓
METER_USE	Use	METER_REGISTER	Meter	✓	✗	✓
METER_MODEL	Model	METER_REGISTER	Meter	✓	✗	✓
SECTION_NUMBER	Section Number	NMI_DATA	NMI Site	✓	✗	✓
SHARED_ISOLATION_POINT_FLAG	Shared Isolation Point Flag	NMI_DATA	Meter	✓	✗	✓

BUT Field ID	Field	CATS table	Group	BUT ONCE	CURRENT IS NULL	NEW NOT NULL
STREET_NAME	Street Name	NMI_DATA	Address	✓	✗	✓
STREET_SUFFIX	Street Suffix	NMI_DATA	Address	✓	✗	✗
STREET_TYPE	Street Type	NMI_DATA	Address	✓	✗	✗
VT_ACCURACY_CLASS	Voltage Transformer Accuracy Class	METER_REGISTER	VT Group	✓	✗	✓
VT_LOCATION	Voltage Transformer Location	METER_REGISTER	VT Group	✓	✗	✓
VT_RATIO	Voltage Transformer Ratio	METER_REGISTER	VT Group	✓	✗	✓
VT_TEST	Voltage Transformer Test	METER_REGISTER	VT Group	✓	✗	✓
VT_TEST_DATE	Voltage Transformer Test Date	METER_REGISTER	VT Group	✓	✗	✓
VT_TYPE	Voltage Transformer Type	METER_REGISTER	VT Group	✓	✗	✓

6 CATS Change Requests

AEMO rejects Change Requests with **removed Standing Data fields** because they are no longer supported under the **MSATS Procedures**.

6.1 Change request objections

For CR6300 and CR6301, in Victoria only, there is a new BADPARTY objection code allowing the current Metering Coordinator (MC) to object to a change of Responsible Person (RP) role where the NMI classification is SMALL.

C = Current Role

CR Code	Objection Code	NMI Class	Jurisdiction	Objection Rules						
				FRMP	LR	MDP	MPB	RoLR	RP	LNSP
6300	BADPARTY	SMALL	VIC	x	x	x	x	x	C	x
6301	BADPARTY	SMALL	VIC	x	x	x	x	x	C	x

6.2 Change request response

6.2.1 Invalid enumeration

For all inbound CRs where the value provided does not match allowable enumerations, a CATS Change Response returns with the following details:

Event Severity	Code	Request ID	NMI	Explanation
Error	1100	Corresponding CATSChangeResponse request ID	Corresponding NMI for which the CATSChangeRequest was raised	Value of [field name] is invalid

6.2.2 Invalid field

For all inbound CRs where a **non-supported field** is provided, a CATS Change Response returns with the following details:

Event Severity	Code	Request ID	NMI	Explanation
Error	1101	Corresponding CATSChangeResponse request ID	Corresponding NMI for which the CATSChangeRequest was raised	Data fields provided are not valid for this Change Request

6.3 Change request status notification rules

The Change Request Status Notification Rules apply to all new **CATS Standing Data** fields.

Event	Change reason code	CATS procedures principles and obligations section	Procedure for management of WIGS NMIs section
Create NMI	2000	9.1.8	4.1.8
	2001	9.1.8	4.1.8
	2520	9.4.7	n/a
	2521	9.4.7	n/a
	2020	9.2.8	4.2.8
	2021	9.2.8	4.2.8
	2500	9.3.7	4.3.7
	2501	9.3.7	4.3.7
Maintain NMI	5050	12.3.7	7.2.6
	5051	12.3.7	7.2.6
	5001	12.2.10	7.1.10
	5021	12.2.10	7.1.10
	5060	12.5.7	7.3.7

Event	Change reason code	CATS procedures principles and obligations section	Procedure for management of WIGS NMIs section
	5061	12.5.7	7.3.7
	5100	15.1.7	9.1.7
	5101	15.1.7	9.1.7

You can find the existing rules in the MSATS procedures:

- **CATS Procedures Principles and Obligations**
- **Procedure for Management of WIGS NMIs**

7 CATS Change Reason Codes

7.1 Change reason code 6800 change

The **Dormant days** value changes for change reason code 6800 so the MSATS overnight process (BU500) doesn't cancel them if there is a delay in the meter read.

Jurisdiction	NMI classification code	Change reason code	Description	Dormant days
ALL	LARGE, SMALL, NCONUML	6800	Change multiple roles (prospective)	730
ACT, ALL, NEM, NSW, QLD, SA, TAS, VIC	GENERATR, LARGE, WHOLESAL, SMALL, NREG, DWHOLSAL, SAMPLE, NCONUML, BULK, XBOUNDRY, INTERCON, EPROFILE	All other Change Reason Codes		220

Optional includes field defined in the Standing Data For MSATS Procedures as either Required or Optional.

7.2 Standing data

Roles setting and maintaining new NMI Standing Data items by Change Reason Code.

Change request	Change reason code	Initiating role	Description	Mandatory	Optional
Create NMI	2000	New LNSP	Create NMI	ConnectionConfiguration	DPNumber GNAFPID HouseNumberTo SectionNumber
	2001	New LNSP			
	2520	New LNSP	Create NMI, MDM Datastream & Metering Installation Details – Child NMI		
	2521	New LNSP			

Change request	Change reason code	Initiating role	Description	Mandatory	Optional
	2020	New LNSP	Create NMI Details – Child		
	2021	New LNSP			
	2500	New LNSP	Create NMI, NMI Datastream & metering installation details		
	2501	New LNSP			
Maintain NMI	5050	Current LNSP	Change NMI Details	None	ConnectionConfiguration DPNumber GNAFPID HouseNumberTo SectionNumber
	5051	Current LNSP			
	5001	Current LNSP	Backdate NMI Start Date		
	5021	Current LNSP			
	5060	Current LNSP	Change NMI Details – Child		
	5061	Current LNSP			
AEMO-Initiated	5100	AEMO	AEMO-Initiated Standing Data Updates		
	5101	AEMO			

7.3 Meter register

Change request	Change reason code	Initiating role	Description	Mandatory	Optional
Create and Maintain Metering	3090	Current MC	Advanced Exchange of Metering	None	Manufacturer Model Use
	3091	Current MC			GPSCoordinatesLat GPSCoordinatesLong
	3080	Current MC	Advanced change metering installation details		CurrentTransformerAccuracyClass CurrentTransformerLocation CurrentTransformerRatioAvailable CurrentTransformerRatioConnected
	3081	Current MC			CurrentTransformerTest CurrentTransformerTestDate CurrentTransformerType TestResult VoltageTransformerAccuracyClass VoltageTransformerLocation VoltageTransformerRatio VoltageTransformerTest VoltageTransformerTestDate VoltageTransformerType
	3000	Current MPB	Create Metering Installation Details	Manufacturer Model Use	GPSCoordinatesLat GPSCoordinatesLong CurrentTransformerAccuracyClass CurrentTransformerLocation
	3001	Current MPB		Manufacturer Model Use	CurrentTransformerRatioAvailable CurrentTransformerRatioConnected CurrentTransformerTest CurrentTransformerTestDate
	3004	Current MPB	Exchange of Metering Information	None	CurrentTransformerType TestResult VoltageTransformerAccuracyClass
	3005	Current MPB		None	VoltageTransformerLocation VoltageTransformerRatio VoltageTransformerTest
	3050	Current MPB	Change Metering Installation Details	None	VoltageTransformerTestDate VoltageTransformerType
	3051	Current MPB		None	

Change request	Change reason code	Initiating role	Description	Mandatory	Optional
Create NMI	2500	New LNSP	Create NMI, Metering Installation Details and NMI Datastream	Manufacturer Model Use	GPSCoordinatesLat GPSCoordinatesLong CurrentTransformerAccuracyClass CurrentTransformerLocation CurrentTransformerRatioAvailable CurrentTransformerRatioConnected CurrentTransformerTest CurrentTransformerTestDate CurrentTransformerType TestResult VoltageTransformerAccuracyClass VoltageTransformerLocation VoltageTransformerRatio VoltageTransformerTest VoltageTransformerTestDate VoltageTransformerType
	2501	New LNSP			
	2520	New LNSP	Create Child NMI, Metering Installation Details and MDM Datastream		
	2521	New LNSP			
AEMO-Initiated	5100	Current NEMM	AEMO-Initiated Standing Data Updates	None	Manufacturer Model Use GPSCoordinatesLat GPSCoordinatesLong CurrentTransformerAccuracyClass CurrentTransformerLocation CurrentTransformerRatioAvailable CurrentTransformerRatioConnected CurrentTransformerTest CurrentTransformerTestDate CurrentTransformerType TestResult VoltageTransformerAccuracyClass VoltageTransformerLocation VoltageTransformerRatio VoltageTransformerTest VoltageTransformerTestDate VoltageTransformerType
	5101	Current NEMM			

8 MSATS Validation

8.1 CR validation logic

AEMO validates the new **CATS Standing Data** for maximum length, data type for all inbound CRs where a value is provided. AEMO only accepts allowed enumerations defined under the **MSATS Procedures**.

Validation logic does not consider the proposed effective date of the CR, it considers when the CR is received and processed.

AEMO ignores values received for new supported aseXML fields currently not existing in MSATS.

For details about validation for in-flight CRs, see [Inflight change requests \(in progress\)](#).

8.1.1 Removed standing data

AEMO rejects CRs with **removed Standing Data** items.

8.1.2 Unstructured address

If an unstructured AddressLine NMI Data value is provided in a 2XXX or 5XXX series CR, AEMO rejects it because the field is no longer supported under the **MSATS Procedures**. Unstructured AddressLine will however continue to be returned via NMI Discover until 7 November 2023 as part of the 12 month transition window.

8.1.3 GPS Coordinates Lat and Long

For GPS Coordinates Lat and Long, trailing zeros will be removed by MSATS upon receipt. For example, when submitting GPS Coordinates Lat, a CATS Submission of '36' and '36.0000000' are accepted by MSATS and treated as equal. The CATS Notification or CATS Report generated by MSATS for that NMI Standing Data item will, however, remove any trailing zeros, resulting in a CATS Notification GPS Coordinates Lat value of '36'. Similarly, where no GPS coverage is available, a value of '0', '0.0000', or '0.000000' shall be accepted for a CATS Submission and shall be reported as '0' within a CATS Notification or CATS Report.

8.2 Inbound change requests

8.2.1 CATS_METER_REGISTER

The following list of enumerations is validated for inbound CRs:

Enumeration	Value		Description
CurrentTransformerTest VoltageTransformerTest	SAMPLE		Part of 100% testing
	SAMPLE TESTED		Tested as part of a sample plan
	TESTED		Part of an approved sample plan
CurrentTransformerAccuracyClass	0.1	0.5ME2.5	Allowed enumerations
	0.2	0.5 EXT 200%	
	0.2M	0.5S	
	0.2ME1.5	0.5S EXT 200%	
	0.2ME2	1	
	0.2ME2.5	2	
	0.2S	AM	
	0.5	BM	
	0.5M	0.05PX	
	0.5ME1.25	UNKNOWN	
	0.5ME2		

Enumeration	Value		Description
CurrentTransformerType	A	S	Allowed enumerations
	B	T	
	C	U	
	HV 1A	V	
	HV 5A	W	
	LV OTHER		

Enumeration	Value					Description
CurrentTransformerRatioConnected	5:5	160:5	2000:5	150:1	1250:1	Allowed enumerations
	10:5	200:5	2400:5	200:1	1400:1	
	15:5	250:5	2500:5	250:1	1500:1	
	20:5	300:5	3150:5	300:1	1600:1	
	25:5	400:5	3200:5	400:1	1700:1	
	30:5	500:5	4000:5	500:1	1900:1	
	40:5	600:5	4500:5	600:1	2000:1	
	50:5	630:5	5000:5	630:1	2400:1	
	60:5	750:5	5:1	650:1	2500:1	
	80:5	1000:5	40:1	800:1	3000:1	
	75:5	800:5	25:1	750:1	3000:5	
	100:5	1200:5	50:1	900:1	3200:1	
	120:5	1250:5	75:1	1000:1	4000:1	
	125:5	1500:5	100:1	1100:1	4500:1	
	150:5	1600:5	125:1	1200:1	4800:1	
	5000:1					
Manufacturer	For values, see MSATS online help > Metering Data > Update Manufacturer and Model MarketNet access required					Allowed enumerations
Model	For values, see MSATS online help > Metering Data > Update Manufacturer and Model MarketNet access required					Allowed enumerations
Test Result	PASS FAIL					Allowed enumerations

Enumeration	Value	Description
VoltageTransformerAccuracyClass	0.01M B	Allowed enumerations
	0.2M BL	
	0.5M C	
	1M D	
	A UNKNOWN	
	AL	
VoltageTransformerRatio	3300:110 44000:110	Allowed enumerations
	5000:110 66000:110	
	5500:110 110000:110	
	6600:110 132000:110	
	11000:110 220000:110	
	11500:110 275000:110	
	22000:110 330000:110	
	33000:110 500000:110	
VoltageTransformerType	COMBINED	IVT + CT
	CVT	Capacitive Voltage Transformer
	IVT	Inductive Voltage Transformer
	THREE-PHASE THREE-LIMB	
	THREE-PHASE FIVE-LIMB	

8.2.2 CATS_REGISTER_IDENTIFIER

Enumeration	Value	Description
ControlledLoad	NO	No controlled load
	YES	There is a controlled load associated with a controlled load network tariff on this register
	EXT	There is controlled load which is externally switched by the LNSP associated with a controlled load network tariff on this register
TimeOfDay	ALLDAY	All day
	BUSINESS	Business time of day
	CONTROLLED	Controlled time of day
	DEMAND	Demand is used for describing a register
	EVENING	Evening time of day
	INTERVAL	Interval time of day, used for all Interval metering
	OFFPEAK	Off peak time of day
	PEAK	Peak time of day
	SHOULDER	Shoulder time of day
Use	AVERAGE	Average meter
	CHECK	Check meter
	INFORM	Information meter
	LOGICAL	Logical meter
	PREPAID	Prepaid meter
	REVENUE	Revenue meter or unmetered load
	SAMPLE	Sample meter
	STATIS	Statistical meter

Enumeration	Value	Description
	TUOS	TUOS meter
	UNKNOWN	Unknown meter use code

8.3 Inflight change requests

MSATS validation and processing behaviour for CRs post this Release. Applies to all Prospective CRs where the Proposed date is after Procedural Effective Date and Retrospective CRs where the Proposed Date is before Procedural Effective Date.

ID	CR Submitted	CR Characteristics	CR Status on Validation	Notification	On CR COM	CATS Reports
1	Before MSATS 48.0 deployment.	CR that includes a value for a removed CRI or CMR Standing Data item (e.g. AdditionalSiteInformation)	REQ	1. REQ notifications will include removed CRI or CMR items. 2. All other notifications (including PEND, COM) after the Procedural Effective Date will not include the value of the removed Standing Data item.	The value of the removed field is written to Standing Data but viewable by AEMO only.	C1/C4/C7 Does not include the updated value of the removed Standing Data item.
2		CR that includes a value for Unstructured Address.	REQ	Includes the value of Unstructured Address.	Value of the Unstructured Address written to Standing Data.	C1 includes the updated value of the Unstructured Address. C4/C7 includes the updated value of Unstructured Address where no Structured alternative exists.
3		CR that includes a value for a new MSDR Standing Data item (e.g. optional HouseNumberTo or mandatory ConnectionConfiguration)	REQ	Does not include the value of the new Standing Data item.	The value of the new optional field is not written to Standing Data.	C1/C4/C7 Does not include the updated value of the new

						Standing Data item.
4	In the window between MSATS 48.0 deployment and the effective date of the Procedure.	CR that includes a value for a removed CRI or CMR Standing Data item (e.g. Demand1)	REQ	1. REQ notifications will include removed CRI or CMR items. 2. All other notifications(including PEND, COM) after the Procedural Effective Date will not include the value of the removed Standing Data item.	The value of the removed Standing Data item is written to Standing Data but viewable by AEMO only.	C1/C4/C7 Does not include the updated value of the removed Standing Data item.
5		CR that includes a value for Unstructured Address.	REQ	Includes the value of Unstructured Address.	Value of the Unstructured Address written to Standing Data.	C1 includes the updated value of the Unstructured Address. C4/C7 includes the updated value of Unstructured Address where no Structured alternative exists.
6		CR that includes a value for a new MS DR Standing Data item (e.g. optional HouseNumberTo or mandatory ConnectionConfiguration)	REJ - Event code 1101 - Data fields provided that are not valid for this Change Request Type.	REJ is inclusive of new Standing Data items.	The value of the new optional field is not written to Standing Data.	NA
7	After Procedural Effective Date.	CR that includes a value for a deprecated CRI or CMR Standing Data item (e.g. Demand1)	REJ - Event code 1101 - Data fields provided that are not valid for this Change Request Type.	Does not include the value of the removed Standing Data item.	Values of the CR not written to Standing Data.	NA
8		CR that includes a value for Unstructured Address.	REJ - Event code 1101 - Data fields provided that are not valid for this Change Request Type.	Includes the value of Unstructured Address.	Values of the CR not written to Standing Data.	NA

9	CR that includes a value for a new MS DR Standing Data item (e.g.optional HouseNumberTo or mandatory ConnectionConfiguration)	REQ	Includes the value of the new Standing Data item.	The value of the new optional field is written to Standing Data.	C1/C4/C7 includes the updated value of the new Standing Data item.
10	CR that does not include a field that has been made Mandatory under the CATS/WIGS v5.31 Procedures (e.g. ConnectionConfiguration)	REJ - Event code 1151 - Not all required fields have been entered. Please ensure all fields have been completed.	Includes the value of the mandatory Standing Data item.	Values of the CR not written to Standing Data.	NA
11	CR that does not include a valid enumeration under the CATS/WIGS v5.31 Procedures (e.g. an invalid value for ControlledLoad)	REJ - Event codes 1919 and 1920 for Invalid ControlledLoad and TimeOfDay REJ - Event code 1100 for other new CMR fields	Includes the value of the mandatory Standing Data item.	Values of the CR not written to Standing Data.	NA

9 MSATS Web Portal

The following interfaces in the MSATS Web Portal change for this Release.

For field validation details, see [Validation](#).

9.1 NMI discovery type 1 search – house number to

NMI Discovery - Search

Participant ID: NEMMCO

Participant Name: Australian Energy Market Opera

Search Type 1 (NMI Discovery): ☒

Search Type 2 (Obtain Standing Data): ☐

Search Type 3 (Obtain Role Data): ☐

Search Type 1 (NMI Discovery)

Jurisdiction (*): SA - South Australia Select one to see available Search Criteria

Search By:

DPID:

Or:

Meter Serial ID:

Or:

Address

Note. These search fields will be matched on both the structured and unstructured address fields.

Building/Property Name:

Location Descriptor:

Flat Number:

Flat Type:

Floor Number:

Floor Type:

House Number:

Street Name:

House Number Suffix:

Street Suffix:

HouseNumberTo:

State (*):

Suburb/Locality:

Lot Number:

Street Type:

Postcode:

Search

Clear

9.2 Change Request – Main interface - NMI Meter Register – List items interface

9.2.1 Added

Change Requests - Main				Participant ID:	NEMMCO	
				Participant Name:	Australian Energy Market Operator Limited	
Go To: Participant Role Relationships NMI Standing Data NMI Data Stream NMI Meter Register NMI Register Identifier						
General Information:						
Change Request ID:		Change Reason Code:		3000		
Change Request Status:		Participant Transaction ID		44444		
NMI:	6407196861	Checksum:		4		
Proposed Start Date:	08-Mar-22	Original Transaction Date:				
Actual Change Date:		Actual End Date:				
Related Request ID:						
Read Type Code:		Trans Type Code:				
NMI Meter Register - List:						
Serial ID	Location	Manufacturer	Model	Last Test Date	Status Code	Action
81127						Edit
514899						Edit

9.2.2 Removed

Change Requests - Main				Participant ID:	NEMMCO	
				Participant Name:	Australian Energy Market Operator Limited	
Go To: Participant Role Relationships NMI Standing Data NMI Data Stream NMI Meter Register NMI Register Identifier						
General Information:						
Change Request ID:		Change Reason Code:		3000		
Change Request Status:		Participant Transaction ID		44444		
NMI:	6407196861	Checksum:		4		
Proposed Start Date:	08-Mar-22	Original Transaction Date:				
Actual Change Date:		Actual End Date:				
Related Request ID:						
Read Type Code:		Trans Type Code:				
NMI Meter Register - List:						
Serial ID	Location	Route	Model	Last Test Date	Next Test Date	Status Code
81127						
514899						

9.3 Change Request – New/Edit – NMI Meter Register – View interface

9.3.1 Added

Test result

The drop-down fields for the CATS METER REGISTER values are:

- 1. **Null:** Means **do not** change the current value.
- 2. **Space Out Existing Value:** Means **erase** the current value.
- 3. **FAIL:** Specifies the new value.
- 4. **PASS:** Specifies the new value.

Change Request - New - Meter Register

Participant ID: NEM

Participant Name: Aust

Meter Serial ID (*):

Meter Installation Type Code:

Meter Location:

Meter Hazard:

Meter Use (*):

Meter Model (*):

Meter Read Type:

Next Scheduled Read Date:

Meter Manufacturer (*):

GPSCoordinatesLat:

GPSCoordinatesLong:

Current Transformer Accuracy Class:

Current Transformer Location:

Current Transformer Ratio Available:

Current Transformer Ratio Connected:

Current Transformer Test:

Current Transformer Test Date:

Current Transformer Type:

Voltage Transformer Accuracy Class:

Voltage Transformer Location:

Voltage Transformer Ratio:

Voltage Transformer Test:

Voltage Transformer Test Date:

Voltage Transformer Type:

Last Test Date:

Test Result:

Status Code:

Activity Status:

Space Out Existing Value

FAIL

PASS

9.3.2 Removed

Change Request - New - Meter Register

Meter Serial ID (*)

Meter Installation Type Code:

Additional Site Information:

Meter Location:

Meter Point:

Meter Hazard:

Meter Use:

Meter Model:

Meter Read Type:

Next Scheduled Read Date:

Transformer Location:

Transformer Ratio:

Last Test Date:

Test Result Accuracy:

Test Result Notes:

Measurement Type:

Communication Equipment Type:

Data Conversion:

Estimation Instructions:

Test & Calibration Program:

User Access Rights:

Status Code (*):

Meter Route:

Meter Constant:

Meter Manufacturer:

Meter Program:

Transformer Type:

Next Test Date:

Test Performed By:

Remote Phone Number:

Communication Protocol:

Data Validations:

Asset Management Plan:

Calibration Tables:

Passwords:

9.4 Change Request – Change – Register Identifier

9.4.1 Removed

- Demand1
- Demand2

9.5 Change Request – [New/Edit] – Register Identifier

9.5.1 Added

Change Request - New - Register Identifier

Participant ID:

NEMHCO

Participant Name:

Australian Energy Market Operator Limited

Meter Register Serial ID (*)

0081127

Register ID:

Network Tariff Code:

Network Tariff Additional Information:

Unit of Measure:

Multiplier:

HDM Datastream Suffix:

Demand-S:

Controlled Load:

Status Code:

Actual/Cumulative Indicator:

Dial Format:

Demand-S:

Save

Clear

Cancel

Enumerated list drop-down

9.5.2 Removed

- Demand1
- Demand2

NMI Register Identifier - View		Participant ID:	NEMMCO
		Participant Name:	Australian Energy Mar
NMI:	6407196861		
Meter Register Serial ID:	0081127		
Register ID:	1		
Network Tariff Code:	LVS1R		
Network Tariff Additional Information:	<div></div>		
Unit of Measure:	KWH	Time of Day:	PK
Multiplier:	1	Actual/Cumulative Indicator:	C
Suffix:		Dial Format:	5
Demand 1:		Demand 2:	
Controlled Load:	N		
Start Date:	18-Jan-2010	End Date:	31-Dec-9999
Status Code:	R	Updated On:	31-Dec-9999 0
Created On:	21-Jan-2010 00:53:35		
Activity Status:	A		

9.6 Change Request – New/Edit – NMI Standing Data interface

9.6.1 Added

Address

Building/Property Name:

Lot Number:

Flat/Unit

Type:

Floor/Level

Type:

Street

House Number:

House Number To:

House Number Suffix:

Suburb/Locality (*):

DPID:

Shared Isolation Point Flag:

Connection Configuration:

Section Number:

DP Number:

GNAF PID:

Save

Clear

Cancel

9.6.2 Removed

- Unstructured Address 1

- Unstructured Address 2
- Unstructured Address 3

9.7 NMI Information > Obtain Standing Data – Results interface

9.7.1 Added

Obtain Standing Data - Results	
Go to:	View Data Streams View Participant Relationships View Meter Registers
General Information:	
NMI:	6001287470
Classification Code:	XBOUNDRY
Embedded Network ID (Parent):	
Embedded Network ID (Child):	
Start Date:	7-Jul-2020
NMI Status Code:	A
Address Information:	
Building/Property Name:	
Lot Number:	
Flat/Unit	Type: F Number: 1
Floor/Level	Type: Number:
Street	House Number: 83
	House Number To:
	House Number Suffix:
Suburb/Locality:	NIDDRIE
DPID:	
Unstructured Address 1:	
Unstructured Address 2:	
Unstructured Address 3:	
Feeder Class:	
Shared Isolation Point Flag:	
Connection Configuration:	
Section Number:	
DP Number:	
GNAF PID:	

9.8 NMI Information > Obtain Standing Data – Results - NMI Meter Registers – List interface

9.8.1 Removed

- Addl Site Info
- Route

NMI Meter Registers - List					Participant ID: NEMMCO			
Participant Name Australian Energy Market C								
Meter Registers for: 6407196861								
Meter Serial ID	Addl Site Info	Location	Route	Model	Status Code	Start Date	End Date	Updated On
81127		FRONT VERANDAH	8053	SDM	R	18-Jan-10	31-Dec-99	31-Dec-99
514899		FRONT VERANDAH	8053	SPD100-027	C	31-Jan-11	31-Dec-99	31-Dec-99

9.9 NMI Information> NMI Master > NMI Master – View interface

9.9.1 Added

NMI Master - View

General Information:

NMI:

6407294275

Classification Code:

SMALL

Embedded Network ID (Parent):

Embedded Network ID (Child):

Start Date:

9-Jul-2020

Status Code:

A

Activity Status:

A

Address Information:

Building/Property Name:

Lot Number:

Flat/Unit

Type: U Number: 4

Floor/Level

Type: Number:

Street

House Number: 16

House Number To:

Suburb/Locality:

House Number Suffix:

DPID:

48628239

Unstructured Address 1:

Unstructured Address 2:

Unstructured Address 3:

Feeder Class:

Shared Isolation Point Flag:

Connection Configuration:

Section Number:

DP Number:

GNAF PID:

9.10 NMI Information > Point In Time NMI Master Summary interface

9.10.1 Added

Point In Time NMI Master Summary

Search Criteria

NMI (*):

6407294275

Business Date (*) (dd-mmm-yyyy):

9-Jul-2020

Report Type (*):

S

Search

Clear

NMI Data Items

General Information:

NMI:

6407294275

Classification Code:

SMALL

Embedded Network ID (Parent):

Embedded Network ID (Child):

Start Date:

9-Jul-2020

Status Code:

A

Activity Status:

A

Address Information:

Building/Property Name:

Flat/Unit

Type: U Number: 4

Floor/Level

Type: Number:

Street

House Number: 16

House Number To:

Suburb/Locality:

House Number Suffix:

DPID:

48628239

Unstructured Address 1:

Unstructured Address 2:

Unstructured Address 3:

Feeder Class:

Shared Isolation Point Flag:

Connection Configuration:

Section Number:

DP Number:

GNAF PID:

9.11 NMI Master > NMI Meter Register – View interface

9.11.1 Added

NMI Meter Register - View		Participant ID:	
		Participant Name:	
NMI:	6407350989	Meter ID:	637912
Meter Installation Type Code:	MRIM	Meter Location:	LEFT PORCH
Meter Hazard:		Meter Manufacturer:	
Meter Use:		GPSCoordinatesLat:	
Meter Model:	E1E100-031	GPSCoordinatesLong:	
Meter Read Type:	RWD		
Next Scheduled Read Date:	22-Apr-22		
Current Transformer Accuracy Class:		Voltage Transformer Accuracy Class:	
Current Transformer Location:		Voltage Transformer Location:	
Current Transformer Ratio Available:		Voltage Transformer Ratio:	
Current Transformer Ratio Connected:		Voltage Transformer Test:	
Current Transformer Test:		Voltage Transformer Test Date:	
Current Transformer Test Date:		Voltage Transformer Type:	
Current Transformer Type:			
Last Test Date:			
Test Result:	Pass		
Start Date:	07-Jun-11	End Date:	31-Dec-99
Status Code:	C	Updated On:	31/12/9999 00:00
Activity Status:	A	Created On:	09/06/2011 00:40

9.11.2 Removed

NMI Meter Register - View		Participant ID:	
		Participant Name:	
NMI:	6407350989	Meter ID:	637912
Additional Site Information:		Meter Location:	LEFT PORCH
Meter Installation Type Code:	MRIM	Meter Point:	1
Meter Hazard:		Meter Route:	3350
Meter Use:		Meter Constant:	
Meter Model:	E1E100-031	Meter Manufacturer:	PRI01
Meter Read Type:	RWD	Meter Program:	
Next Scheduled Read Date:	22-Apr-22		
Transformer Location:		Transformer Type:	
Transformer Ratio:			
Last Test Date:		Next Test Date:	
Test Result Accuracy:	0	Test Performed By:	
Test Result Notes:			
Measurement Type:		Remote Phone Number:	
Communication Equipment Type:		Communication Protocol:	
Data Conversion:		Data Validations:	
Estimation Instructions:		Asset Management Plan:	
Test & Calibration Program:		Calibration Tables:	
User Access Rights:		Passwords:	
Start Date:	07-Jun-11	End Date:	31-Dec-99
Status Code:	C	Updated On:	31/12/9999 00:00
Activity Status:	A	Created On:	09/06/2011 00:40

9.12 Transactions > Change Request > Change Request – Summary interface

9.12.1 Added

Change Requests - Summary	
General Information:	
Change Request ID:	
Change Request Status:	
NMI:	6001287470
Proposed Start Date:	9-Jul-2020
Actual Change Date:	
Related Request ID:	
Read Type Code:	
Participant Role Relationships:	
NMI Standing Data:	
Jurisdiction Code:	
DLF Code:	
NMI Classification Code:	
Embedded Network Parent:	
Address	
Building/Property Name:	
Lot Number:	
Flat/Unit	Type: Number:
Floor/Level	Type: Number:
Street	House Number: 83
	House Number To:
	House Number Suffix:
Suburb/Locality:	NIDDRIE
DPID:	
Unstructured Address 1:	
Unstructured Address 2:	
Unstructured Address 3:	
Feeder Class:	
Shared Isolation Point Flag:	
Connection Configuration:	
Section Number:	
DP Number:	
GNAF PID:	

9.13 Rules maintenance

The Administration > Rules Maintenance > Jurisdictional Parameters includes a new column:

- Number of Days to Cancel Open Change

<screenshot>

10 MSATS Reports

Removed CATS Standing Data items no longer display in MSATS reports if the From Date is after 7 November 2022.

10.1 CATS C1, C4, C7, and snapshot reports

In accordance with the Standing Data Access Rules, for the C1, C4, C7 and Snapshot reports, only participants with a current role for a NMI can query the **new Standing Data** items through a CATS Report Request or Response.

Data Item	Jurisdiction	Standing Data Access Rights									
		FRMP	LR	LNSP	MDP	MPB	MPC	RP	RoLR	NEMM	NSP2
ConnectionConfiguration	All	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓
GNAFPID	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
SectionNumber	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
DPNumber	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
HouseNumberTo	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓

10.2 B2M schema transforms

The new **Standing Data** items are removed from the Report Response for participants having a B2M aseXML schema preference lower than r42. MSATS includes a comment flagging the removal in the transformed aseXML payload.

10.3 aseXML elements

Report responses displays the **CATS Standing Data** items in the following aseXML element blocks. If the NMI does not have any values for the new Standing Data items, the Report Response does not display them.

10.3.1 CATS_NMI_DATA

Replication block	Row xsi type	Element
ElectricityNMIMaster	ElectricityNMIMasterRow	<ConnectionConfiguration> <GNAFPID> <SectionNumber> <DPNumber> <HouseNumberTo>

10.3.2 CATS_METER_REGISTER

Replication block	Row xsi type	Element
ElectricityNMIMeterRegisterConfiguration	ElectricityNMIMeterRegisterRow	<CurrentTransformerAccuracyClass> <CurrentTransformerLocation> <CurrentTransformerRatioAvailable> <CurrentTransformerRatioConnected> <CurrentTransformerTest>

Replication block	Row xsi type	Element
		<CurrentTransformerTestDate>
		<CurrentTransformerType>
		<GPSCoordinatesLat>
		<GPSCoordinatesLong>
		<TestResult>
		<VoltageTransformerAccuracyClass>
		<VoltageTransformerLocation>
		<VoltageTransformerRatio>
		<VoltageTransformerTest>
		<VoltageTransformerTestDate>
		<VoltageTransformerType>

10.4 C1 report

10.4.1 Generic field names for CATS_NMI_DATA

For participants using the C1 CATS Transaction Field Validations report these are the MSATS field name mappings defined for the CATS_NMI_DATA table for MSDR phase 2. AEMO uses the CND_[nn] framework for MSDR phase 2 fields.

Where possible, participants should use the Procedural field names defined in [Standing Data for MSATS](#). AEMO does not support participants using the Oracle database table and field names.

Due to the MSDR compliance holiday, CND_[nn] fields described in the Procedures as mandatory do not appear as mandatory in the C1 report.

Procedural field	MSATS field	MSATS release
ConnectionConfiguration	CND_05	48.0
DPNumber	CND_08	48.0
GNAFPID	CND_09	48.0
HouseNumberTo	CND_06	48.0
SectionNumber	CND_07	48.0
SharedIsolationPointFlag	CND_04	47.10

10.5 C4 report

Where a NMI currently has a value for one of the **new Standing Data** items, participants can submit a Detailed C4 NMI Master Report Request and receive a Report Response, including the NMI Standing Data element and value, where:

1. The participant has a relationship to the NMI according to the CATS Standing Data Access Rules
2. The B2M CATS schema preference is set to aseXML r42 or later.

10.6 C7 report

To submit a C7 New Participant Access Report transaction and receive a Report Response which the **new Standing Data** items, participants must have their **B2M aseXML schema preference set to aseXML.r42 or later** and have one of the following:

- Be nominated for a role for the NMI within a CR1000 series that is REQ, PEND, OBJ.
- Be nominated for a role for the NMI within a CR6000 series that is REQ, PEND, OBJ.
- Have a relationship with a NMI according to the Standing Data Access Rules.

10.7 Snapshot report

Where a NMI has **new Standing Data** values over the report query date, the values falling under the 2D intersection for the participant's Role display in the Snapshot Report.

11 User Rights Management (URM)

No new URM entities for this Release.

For details about Participant Administration and User Rights Access, see [Guide to User Rights Management](#).

12 FAQs

12.1 Can I submit new Standing Data before the [Release Dates](#)

Before the deployment of MSATS 48.0, where a new field has been added to a CR, the CR passes validation, but MSATS ignores the new Standing Data field. The fields are not added to the Standing Data tables or NMI records.

In the window between the deployment of MSATS 48.0 and the effective date of the Procedures, new fields present in a CR will cause a CR rejection.

12.2 When do CR validation rules start

For mandatory fields and enumerations, this occurs from the effective date of the Procedures. New fields will only be accepted and written to Standing Data from the effective date of the Procedures.

13 Implementation

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.
- Schedule staff and resources to upgrade their market systems for the production implementation of this Release.

13.1 Key considerations

- See [Participant Impact](#).

13.2 Upgrade options

13.2.1 Option 1

- Update local processes and technical interfaces to suit the changes.

13.2.2 Option 2

- If changes are irrelevant to participant business processes and technical interfaces, ignore this release.

13.3 Risks

- No critical impacts to participants identified.

14 Terms

14.1 Rules and procedure terms

You can find the following terms defined in the [National Electricity Rules \(NER\)](#).

Term	Term	Term
Accept	Market Participant	Participant User
AEMO	Meter	Registered Participant
CATS Standing Data	Metering Data	Reject
CATS Standing Data Access Rules	NEM	Role
Initiator	NMI	Validation
jurisdiction	NMI Standing Data (subset of CATS Standing Data)	
Market	Participant ID	

14.2 Glossary

You can find a full list of MSATS glossary terms in:

1. [Retail Electricity Market Glossary and Framework](#)

Abbreviation/Term	Explanation
CMR	CATS Meter Register
CRI	CATS Register Identifier
CR	Change request
ERCF	Electricity Retail Consultative Forum
Market Time	Australian Eastern Standard Time (AEST)
MC	Metering Coordinator
MCPI	Metering Coordinator Planned Interruptions
MSDR	MSATS Standing Data Review

Abbreviation/Term	Explanation
NSDR	Next scheduled read date
BU500	MSATS overnight process
Release	MSATS 48.0 Technical Specification – October 2022
Release Dates	Pre-production: Tuesday 27 September 2022 Production: Monday 7 November 2022
RP	Responsible Person (RP)
TBC	To be confirmed

15 References

Connecting to AEMO's Electricity IT systems: Explains the IT interfaces available for participants and how to connect to them.

Guide to CSV Data Format Standard: Describes the generic csv (comma-separated-variables) data format standard used in numerous interfaces in AEMO's energy market systems, including some csv payloads.

Guide to MSATS reports: Explains the purpose, attributes, request, and delivery methods for MSATS participant retail reports.

Guide to MSATS Web Portal: Assists participants to use the MSATS web portal functions. Requires MarketNet access.

Guide to NEM Retail B2M APIs: Explains how to build B2M retail metering APIs.

Guide to User Rights Management: Assists participant administrators (PAs) to use the user rights management functions in the MSATS Web Portal.

MDM File Format and Load Process: Specifies the Meter Data Management (MDM) Format used by MDPs for the provision of Metering Data to AEMO.

MSATS Procedures: Current and previous procedure versions.

Standing Data for MSATS: Describes the data requirements for the CATS database elements stored for each NMI with relevant examples and definitions.

Technical Guide to MSATS: Supplement to the MSATS B2M policies, procedures, and guides providing an understanding of MSATS functionality and business rules.

16 Index

2

2022 Implementation Forum, 10

A

About scripted updates, 81

aseXML elements, 68

B

B2M schema transforms, 68

BADPARTY objection code, 38

Bulk data tool, 16

BUT update field details, 34

C

C1 report, 69

C4 report, 70

C7 report, 70

CATS C1, C4, C7, and snapshot reports, 67

Change reason code 6800 change, 41

Change request objections, 38

continuing improvement of AEMO's IT systems, 11

CR validation logic, 45

G

Generic field names for CATS_NMI_DATA, 69

I

Inbound CRs, 45

industry user group, 11

Inflight CRs, 50

M

Market Systems User Group, 11

Meter register, 43

MSATS reports, 19

MSATS Standing Data Review (MSDR), 11

MSUG, 11

N

new CATS standing data, 16

New meter register data, 27

New standing data, 26

NMI Discovery Search 2, 19

O

obtain a NMI's current value, 17

obtain current meter configuration, 17

P

participants having a B2M aseXML schema preference lower than r42, 16, 68

R

Removed standing data, 25, 45

S

Scripted update details, 82

Scripted update fields, 82

Scripted update process, 81

Scripted update rules, 81

Standing data, 41

Standing data update details, 28



A1. Version History

See [Changes in this version.](#)

A2. Scripted Updates

This is for information only. Scripted updates are not part of this Release.

A.1. About scripted updates

AEMO runs scripted updates to correct issues with the integrity of CATS Standing Data and provides to participants:

- Pseudo-database scripts
- A list of all transformation rules for participants to run the updates against their local copies of Standing Data.

A.2. Scripted update rules

Scripted updates:

- Are blind.
- Do not generate notifications.
- Are not performed on historical record values.
- Are not included in C1 reports.
- For fields containing NULL values is out of scope.
- Are case sensitive (uppercase is validated).
- Are based on an industry wide view of data in CATS tables. Participant's systems may differ, so individual participant impact may differ.

A.3. Scripted update process

AEMO process:

1. Develops a script to analyse the existing data in the applicable MSATS field records, providing counts by unique values currently held in the MSATS database.
2. Uses this data to establish the suggested update criteria.
3. Circulates the suggested update criteria to participants for comment and agreement.
4. Develops and tests the blind update scripts, based on the suggested update criteria.

5. Provide participants with pseudo-SQL reflecting the blind update scripts.
6. Executes the blind update scripts against the MSATS database records according to the agreed timings and schedule so participants can execute their scripts at the same time.
7. Re-executes the analysis scripts from step 1 to validate the changes are successful.

A.4. Scripted update fields

The scripted updates are for the following existing fields identified in the [MSATS Standing data review](#). For details, see [scripted update details](#).

Field	New/amended	CATS standing data table
Controlled Load	Existing	CATS_REGISTER_IDENTIFIER
Meter Manufacturer	Existing	CATS_METER_REGISTER
Meter Model	Existing	CATS_METER_REGISTER
Time Of Day	Existing	CATS_REGISTER_IDENTIFIER

A.5. Scripted update deployment

To ensure that there are no operation issues created from misaligned standing data, Participants must follow the following sequencing of Blind Update Scripts:

1. The existing MSATS end-of-day process (BU500) run: The end-of-day process starts at 00:10 am every day and runs for around two hours. This process updates the status of all pending CRs that have reached their actual start date.
2. AEMO shall apply its Blind Update scripts against the CATS Register Identifier and Meter Register tables.
3. Participants apply all C1 and CATS Notifications updates resulting from the BU500.
4. Once all C1 and notifications updates have been processed, Participants shall apply their Blind Update scripts against their localised copies of the CATS Register Identifier and Meter Register tables.

It should be noted that the BUT will be disabled for the 24 hours between the running of the BU500 on the day Blind Update Scripts have been scheduled to run.

A.6. Scripted update details

AEMO has developed pseudo scripts to support Participants generating their Blind Scripts based on the feedback we have received on the 'MSDR_Scripted_updates_September.xlsx'. It has also provided four lists of direct mappings that contain a list of all From and To TargetValues. This can be used to generate a database script to perform a transform against the participant's local copy of the Standing Data item. If your organisation has not received these files, they can be requested via gsmsdr@aemo.com.au.

Script/File Name	Type	Execution Sequence	Description
MSDR_Scripted_updates_September.xlsx	Reference file	N/A	An Industry reference file containing a list of all agreed direct mappings current as of the 13th of September 2022.
Set_Manufacture_based_on_MeterInstallCode	Pseudo script see section A.7.	1	Pseudo script to set the value of Manufacture to 'UNMETERED' for all meters with an InstallationTypeCode of UMCP or NCONUML.
Set_Model_based_on_MeterInstallCode	Pseudo script see section A.8.	2	Pseudo script to set the value of Model to 'UNMETERED' for all meters with an InstallationTypeCode of UMCP or NCONUML.
Set_TimeOfDay_based_on_MeterInstallCode	Pseudo script see section A.9.	3	Pseudo script to set the value of TimeOfDay to 'INTERVAL' for all non 'BASIC' meters.
TIMEOFDAY.csv	Direct mapping file see section A.10.	4	These files contain a list of all From and To TargetValues. This can be used to generate a database script to perform a transform against the participant's local copy of the Standing Data item.
CONTROLLEDLOAD.csv	Direct mapping file see section A.10.	5	
METERMANUFACTURER.csv	Direct mapping file see section A.10.	6	
METERMODEL.csv	Direct mapping file see section A.10.	7	

AEMO shall run its version of these scripts against the MSATS Standing Data tables at an agreed date post the successful deployment of the November 2022 Release into Production. Whilst it's not critical to execute the scripts in the order described in the table above, running the pseudo script before the direct mappings will decrease the number of direct mappings updates by firstly correcting the values for Unmetered and Interval meters.

A.7. Set_Manufacture_based_on_MeterInstallCode pseudo script update details

The Set_Manufacture_based_on_MeterInstallCode.txt pseudo script requires the following logic to be applied to a participant's local copy of CATS Standing Data.

```
Script UPDATE "MeterRegister"
SET      "MeterRegister"."Manufacturer" = 'UNMETERED'
WHERE    "MeterRegister"."InstallationTypeCode" IN ('UMCP','NCONUML')
        AND      "MeterRegister"."RowStatus"      = 'A'
        AND      "MeterRegister"."ToDate"         = '31-DEC-9999'
        AND      "MeterRegister"."Manufacturer" <> 'UNMETERED'
;
```

A.8. Set_Model_based_on_MeterInstallCode pseudo script update details

The Set_Model_based_on_MeterInstallCode pseudo script requires the following logic to be applied to a participant's local copy of CATS Standing Data.

```
Script UPDATE "MeterRegister"
SET      "MeterRegister"."Model" = 'UNMETERED'
WHERE    "MeterRegister"."InstallationTypeCode" IN ('UMCP','NCONUML')
        AND      "MeterRegister"."RowStatus"      = 'A'
        AND      "MeterRegister"."ToDate"         = '31-DEC-9999'
        AND      "MeterRegister"."Model" <> 'UNMETERED'
;
```

A.9. Set_TimeOfDay_based_on_MeterInstallCode pseudo script update details

The Set_TimeOfDay_based_on_MeterInstallCode pseudo script requires the following logic to be applied to a participant's local copy of CATS Standing Data.

Script

```

UPDATE "RegisterIdentifier"
SET    "RegisterIdentifier"."TimeOfDay" = 'INTERVAL'
WHERE  "RegisterIdentifier"."SequenceNumber" IN (
      SELECT "RegisterIdentifier"."SequenceNumber"
      FROM   "MeterRegister",
            "RegisterIdentifier"
      WHERE  "MeterRegister"."InstallationTypeCode" <> 'BASIC'
      AND    "MeterRegister"."RowStatus"           = 'A'
      AND    "MeterRegister"."ToDate"              = '31-DEC-9999'
      AND    "MeterRegister"."NMI"                 = "RegisterIdentifier"."NMI"
      AND    "MeterRegister"."SerialNumber"         = "RegisterIdentifier"."SerialNumber"
      AND    "RegisterIdentifier"."RowStatus"       = 'A'
      AND    "RegisterIdentifier"."ToDate"         = '31-DEC-9999'
      AND    "RegisterIdentifier"."TimeOfDay" <> 'INTERVAL'
    );

```

A.10. Direct Mapping

For direct mappings, participants must use AEMO-supplied CSV mapping files to map the existing values to TargetValues for their local copy of CATS Standing Data. The database script must only update the active row identifiable where the CATS Standing Data “RowStatus” = 'A' and “ToDate” = '31-DEC-9999'.

AEMO suggests using either:

- an UPDATE statement, for example:

**Example UPDATE using
METERMODEL.csv where:**

- **METERMODEL = 'L & GYR'**
- **TargetValue = 'LANDIS AND GYR'**

```

UPDATE "MeterRegister"
SET    "MeterRegister"."Model" = 'LANDIS AND GYR'
WHERE  "MeterRegister"."RowStatus" = 'A'
      AND    "MeterRegister"."ToDate" = '31-DEC-9999'
      AND    "MeterRegister"."Model" = 'L & GYR'
;

```

- a MERGE statement, for example, loading the values of METERMODEL.csv into a staging table and using a MERGE statement to match and set "MeterRegister"."Model" based on the METERMODEL to TargetValue mappings for the active row of “MeterRegister”.

Participants’ choice of method will vary depending on their market systems database technology and the best-performing option assessment.

A.11. Direct Mapping Result categories

Category	Comment
Already good	Count of values that are an exact match with an agreed enumeration. Note: MSATS performs enumeration validations that are case sensitive, so the value must be much the case of the enumeration.
Null	Count of Null records
Scripted Update	An AEMO created mapping where: <ul style="list-style-type: none"> - The intent of the value is clear - The distinct count of a values is above 5,000 - The mappings are exact matches (no LIKE scripts).
No Mapping	AEMO cannot with certainty identify the intent

Field Name	CATS Standing Data Table	Already good	Null	Scripted Update	No Mapping
Controlled Load	CATS_REGISTER_IDENTIFIER	9.3%	0.1%	90.5%	0.0%
Meter Manufacturer	CATS_METER_REGISTER	31.2%	31.2%	36.7%	0.9%
Meter Model	CATS_METER_REGISTER	32.7%	34.8%	27.4%	5.1%
Time Of Day	CATS_REGISTER_IDENTIFIER	65.6%	0.2%	33.7%	0.6%