



# MSATS 49.0 Technical Specification – May 2023

1.04 April 2023

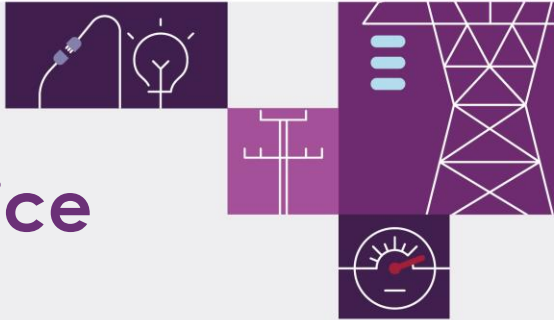
Pre-production: Tuesday 2 May 2023

Production: Monday 29 May 2023

Release series: MSATSNEM2025

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# Important notice

## Purpose & audience

This document describes the technical changes required to participants' systems for the MSATS 49.0 Technical Specification – May 2023 (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 usually 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](#).

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## Distribution

Available to the public.

## Document identification

Prepared by: AEMO Digital

Last update: Thursday, 6 April 2023 11:08 AM

## Version history

v1.04 See [Changes in this version](#).

## Documents made obsolete

The release of this document changes only the version of MSATS 49.0 Technical Specification – May 2023.

## Contact us

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# 1 Introduction

## 1.1 Audience


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

## 1.2 Objective

The MSATS 49.0 Technical Specification – May 2023 (Release) describes AEMO's **projects and enhancements** from participants' perspective, including related changes to participants' IT systems.

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

## 1.3 Status

Version	Status
<del>1.04</del>	Presents the MSATS 49.0 Technical Specification – May 2023 evolving design We <u>still</u> expect some small changes and clarifications to the final design before pre-production.
1.00	<a href="#">Presents the MSATS 49.0 Technical Specification – May 2023 evolving design</a> <a href="#">We expect some small changes and clarifications to the final design before pre-production</a>
0.01	 <b>Initial Draft for review. The design is not ready for participants' builds</b> Presents the MSATS 49.0 Technical Specification – May 2023 evolving design Please send feedback to <a href="mailto:techwriters@aemo.com.au">techwriters@aemo.com.au</a>

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## 1.4 Release dates

Scheduled for implementation in:

- Pre-production: Tuesday 2 May 2023
- Production: Monday 29 May 2023

## 1.5 Projects and enhancements

Project	High-level description	Type
<b>B2B v3.8</b> (Part of NEM2025)	<b>Shared Fuse One-Way Notification</b> indicating the current status of a shared fuse arrangement Introduces new obligations for Retailers and MCs to provide information to the DNSP regarding the shared fuse status at a site	<b>Mandatory</b> for AEMO and Industry to comply with Procedural requirements
<b>Consumer Data Right (CDR) Phase 2</b> (Part of NEM2025)	A new CATS NMI Standing Data column: <b>Last Consumer Change Date</b> . FRMPs can update the field retrospectively when they verify End Users' start dates The Last Consumer Change Date is included in: - The aseXML B2M Schema r43 - New Change Requests 5056 & 5057. The field is maintained by FRMPs when the consumer for an NMI changes, e.g. move-ins and used by AEMO to verify meter data requests for CDR - The <b>Consumer Data Right &gt; getUsageAPI</b>	<b>Mandatory</b> for AEMO and Industry to comply with Procedural requirements
<b>Electricity Retail Consultative Forum (ERCF)</b>	ICF064 - <b>House Number To Suffix</b> as a part of the Australian structured address standards	Enhancement
	ICF065 - <b>Extend the current 130 Business Day limitation on NMID3 requests</b>	Enhancement
	ICF032 - <b>Allow ENMs visibility to parent NMI Standing Data</b>	Enhancement
	ICF047 - <b>Updating Network Tariff</b> for a Greenfield NMI	Enhancement

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Project	High-level description	Type
Integrating Energy Storage Systems (IESS) phase 1 (Part of NEM2025)	Changes to settlement calculations, metering, and retail systems: <ul style="list-style-type: none"><li>- A new Registered Participant category: Integrated Resource Provider (IRP)</li><li>- New Classification Codes</li><li>- TBC</li></ul>	Rule change
MSATS Standing Data Review (MSDR) Phase 3 (Part of NEM2025)	Enumerations available via a C1 report	Report enhancement
Stand-Alone Power Systems (SAPS) (Part of NEM2025)	<p>A new Role Category for Market SAPS Resource Providers (MSRP), also FRMP in MSATS, restricting connections to SAPS NMIs</p> <p>New process for SAPS TNIs</p> <p>Existing SGS recorded in the Role Category field</p> <p>New aseXML schema elements supporting C1 reporting of:</p> <ul style="list-style-type: none"><li>- NodeHierarchyRow dataset and NodeHierarchyRow elements for the new SAPS column Settlement Indicator in the NODE_HIERARCHY table providing participants with the settlement indicator and assigned TNIs for each Profile Area</li><li>- The new SAPs Role Category in the CATS_PARTICIPANT_ROLES table</li></ul> <p>SAPS Fact Sheets:</p> <ul style="list-style-type: none"><li>- Metering</li><li>- Registration application</li></ul>	Rule change

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## 1.6 Forums and meetings

### 1.6.1 Implementation forum

The **Implementation Forum** coordinates readiness activities and is the main stakeholder forum for direct input into the planning and execution for the following projects:

- B2B 3.8
- Consumer Data Rights (CDR)
- eMDM high priority backlog changes

#### Stakeholder forum

Reform Delivery Committee (RDC)

RDC Collaborative Workshop

Program Consultative Forum (PCF)

Electricity Wholesale Consultative Forum

Electricity Retail Consultative Forum

Implementation Forum

Industry testing working group

All stakeholder NEM Reform projects

NEM2025 Reform External News

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- Integrating Energy Storage Solutions (IESS)
- MSATS Standing Data Review (MSDR)
- Stand-Alone Power Systems (SAPS)

### 1.6.2 Integrating energy storage systems working group

The **Integrating Energy Storage Systems Working Group** supports stakeholder consultation on matters relating to the IESS rule implementation. Meetings are held monthly with specific focus groups formed as required.

### 1.6.3 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)**.

### 1.6.4 NEM2025 program consultative forum

The NEM2025 Program Consultative Forum provides engagement and direction for the NEM2025 program initiatives. Meetings are held monthly with specific focus groups formed as required.

### 1.6.5 NEM2025 electricity wholesale consultative forum

The **NEM2025 Electricity Wholesale Consultative Forum** facilitates collaboration across Wholesale National Electricity Market (NEM). Meetings are held monthly with specific focus groups formed as required. Meeting contents and outcomes are published on this website on an ongoing basis.



### 1.6.6 Readiness working group

The **Readiness working group (RWG)** coordinates readiness activities for MSATS Standing Data Review (MSDR) and Metering Coordinator Planned Interruption (MCPI) Program releases. The RWG is the main stakeholder forum for direct industry input into the planning and execution of readiness activities.

## 1.7 Rule and procedure changes

Title	Project	Version/status	Effective
<b>B2B Procedure: One Way Notification Process</b>	B2Bv3.8	3.8	30 May 2023
<b>Integrating energy storage systems into the NEM</b>	IESS	Complete	2 Dec 2021
<b>Metrology Procedure: Part A</b>	SAPS	7.4	30 May 2023
<b>Metrology Procedure: Part B</b>		7.4	30 May 2023
<b>National Metering Identifier Procedure</b>		7.1	30 May 2023
<b>Service Level Procedure: Metering Data Provider Services</b>		2.3	30 May 2023
<b>Service Level Procedure: Metering Provider Services</b>		1.4	30 May 2023
<b>Metering Data Management (MDM) procedures</b>		4.4	1 October 2023
<b>Updating the regulatory frameworks for distributor-led stand-alone power systems</b>		Complete	28 May 2020
<b><u>Standing Data for MSATS</u></b>	MSDR	5.4	30 May 2023
<b><u>MSATS Procedures - CATS Procedure Principles And Obligations</u></b>	CDR	5.4	30 May 2023
<b><u>MSATS Procedures - Procedure For The Management Of Wholesale, Interconnector, Generator And Sample (WIGS) NMIs</u></b>		5.4	30 May 2023
<b>Retail Electricity Market Procedures – Glossary and Framework</b>	All	3.9	30 May 2023

Deleted: **Standing Data for MSATS**

Deleted: **MSATS Procedures - CATS Procedure Principles And Obligations**

Deleted: **MSATS Procedures - Procedure For The Management Of Wholesale, Interconnector, Generator And Sample (WIGS) NMIs**

## 1.8 Related technical specifications

Title	Description
<b>MSATS 47.1 technical specification</b>	B2M Electricity aseXML Schema r42 phase 1 and phase 2 details Global Settlement, MSATS Standing Data Review (MSDR), Metering Coordinator Planned Interruptions (MCPI)
<b>MSATS 47.2 technical specification</b>	<p><b>Blind Update Tool</b> 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><b>Consumer Data Right (CDR)</b> 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>
<b>MSATS 48.0 technical specification</b>	MSATS Standing Data phase 2
<b>MSATS 49.1 technical specification - TBC 2023</b>	Metering exemptions (MCPI)

## 1.9 Related software

Software	Change	Available
<b>B2B Validation Module</b>	Updated with the Shared Fuse Notification	Pre-production: Tuesday 2 May 2023
<b>B2B Validation Module Matrix</b>		Production: Monday 29 May 2023
<b>MSATS Participant Batchter</b>	New version v2.0.16 updated for aseXML schema r43	

## 1.10 Related documents

Once published, these resources take precedence over this technical specification

These guides and resources are updated according to this technical specification and published for the pre-production Release Date.

Title	Description	Publish date
<a href="#">B2B Mapping to aseXML</a>	Describes the mapping between the MSATS B2B procedures and the B2B aseXML schema Updates for <a href="#">B2B r43 schema changes</a>	Tuesday 2 May 2023
<a href="#">B2M Mapping to aseXML</a>	Describes the mapping between the MSATS B2M procedures and the B2M aseXML schema Updates for <a href="#">B2M r43 schema changes</a>	Tuesday 2 May 2023
<a href="#">Guide to MSATS B2B</a>	Information about the B2B e-Hub functions available in the Market Settlement and Transfer System (MSATS) Updates for <a href="#">B2B Browser and Responder changes</a>	Tuesday 2 May 2023
<a href="#">Guide to MSATS reports</a>	Updated with changes to <a href="#">MSATS C1, C4, C7, Snapshot</a> , and new <a href="#">RM51 reports</a>	Tuesday 2 May 2023
<a href="#">Guide to MSATS Web Portal</a>	Information about the B2M functions available in the Market Settlement and Transfer System (MSATS) web portal Updated with <a href="#">MSATS Web Portal changes</a>	Tuesday 2 May 2023
<a href="#">Guide to User Rights Management</a>	Updated with <a href="#">new URM entity for the new Shared Fuse Notification</a>	Tuesday 2 May 2023
<a href="#">Shared Fuse Notification API reference</a>	Information about changes to <a href="#">B2BMessagingAsync</a> , <a href="#">B2BMessagingSync</a> , and <a href="#">B2BMessaging Pull</a>	Tuesday 2 May 2023

Access to the [Markets Portal Help](#) requires a MarketNet connection. Please speak with your company's Participant Administrator if you require access.

## 1.11 Approval to change

No approval or agreement to change required from Participant change controllers.

AEMO consulted and agreed these changes in various forums:

- [NEM2025 Program Consultative Forum](#)
- [NEM2025 Reform Delivery Committee](#)
- [Information Exchange Committee](#)
- [Integrating Energy Storage Systems Working Group](#)
- [Business-to-Business Working Group](#)
- [Electricity Retail Consultative Forum](#)
- [aseXML Standards Working Group](#)

## 1.12 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.

## 1.13 Changes in this version

<u>Function</u>	<u>v1.00</u>	<u>v1.04</u>
<u><b>B2M transforms</b></u>	<u>For participants whose B2M aseXML schema preference is lower than aseXML <a href="#">r43</a>, MSATS removes the HouseNumberToSuffix element and adds a comment flagging the removal.</u>	<u>For participants whose B2M aseXML schema preference is lower than aseXML <a href="#">r42</a>, MSATS removes the HouseNumberToSuffix element and adds a comment flagging the removal.</u>
<u><b>FAQs</b></u>	<u>Not included</u>	<u><b>LCCD FAQs</b> included from the 30 March 2023 MSUG meeting</u>

Function	v1.00	v1.04			
<u>Last consumer change date</u>	In compliance with the Standing Data Access Rules, where a Last Consumer Change Date exists, only FRMPs can receive it in a C1 report.	In compliance with the Standing Data Access Rules, the following roles have access to the LCCD field in the C1 and Snapshot reports: - LNSP - MDP - MPB - MC (RP) - FRMP - AEMO Additional LCCD information			
<u>New SAPS CR validations</u>	n/a	Additional validation:  <table> <tr> <td><u>SAPS NMI cannot have an active DRSP</u></td><td><u>2000, 2001, 2020, 2021, 2500, 2501, 2520, 2521, 5050, 5051, 5060, 5061</u></td><td><u>1234</u> The NMI has an active DRSP</td></tr> </table>	<u>SAPS NMI cannot have an active DRSP</u>	<u>2000, 2001, 2020, 2021, 2500, 2501, 2520, 2521, 5050, 5051, 5060, 5061</u>	<u>1234</u> The NMI has an active DRSP
<u>SAPS NMI cannot have an active DRSP</u>	<u>2000, 2001, 2020, 2021, 2500, 2501, 2520, 2521, 5050, 5051, 5060, 5061</u>	<u>1234</u> The NMI has an active DRSP			

**Moved down [1]:** <#>Removed references to the MCPI project (Metering Exemptions) as it is released in the MSATS 49.1 Release (TBC).¶  
Clarification of **no** change to the PersonNameTitle and PersonGivenName for this Release.¶  
[PersonNameTitle](#)¶  
[PersonGivenName](#)

**Moved down [2]:** <#>[Proposed Timeline](#)¶  
Milestone

**Deleted:** <#>More details about the [ERCF enhancements](#).¶  
More details about [SAPS](#).¶  
More details about the [RM51 Regulated SAPS Generation Reconciliation report](#).¶  
Addition of [MSATS generic field names](#).¶

**Deleted:** MSATS pre-production refresh

## 2 Proposed Timeline

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Milestone	Date	Description
<u>Approval required</u>	<u>n/a</u>	<u>No approval required. For details, see <b>Approval to change</b></u>
<u>MSATS pre-production refresh</u>	<u>11/04/2023 - 17/04/2023</u> <u>Refreshed with production data from 3 April 2023</u>	<u>Refresh of the pre-production systems with data refreshed from the production system</u> <u>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</u>
<u>MSUG draft tech spec review</u>	<u>Complete Thursday, 30 March 2023</u>	<u>Market Systems User Group Meeting (MSUG) to review the technical specification and ask AEMO technical SMEs questions</u> <u>This date is tentative. The project manager will provide an invitation one week prior to the meeting</u>
<u>Revised Technical Specification</u>	<u>March 2023</u>	<u>AEMO releases new versions of this document as the technical requirements are streamlined. During the project this document is the source of truth</u> <u>From the pre-production release, the technical specification is no longer updated, the <b>related documents</b> become the source of truth</u> <u><b>Release schedules and technical specifications</b></u>
<u>MSUG pre-release review</u>	<u>Thursday, 4 May 2023</u>	<u>Market Systems User Group Meeting (MSUG) to review the technical specification and ask AEMO technical SMEs questions</u> <u>This date is tentative. The project manager will provide an invitation one week prior to the meeting</u>
<u>Pre-production CR validations commence</u>	<b>TBC</b>	New CR validations commence
<u>Pre-production implementation</u>	<u>Tuesday 25 April 2023 – Monday 1 May 2023</u>	<u>AEMO implements components of the Release to pre-production for Participant testing</u> <u>AEMO has full access to the system during this period</u> <u>Participant access is not restricted; however, the data content or system availability is not guaranteed</u>
<u>Pre-production systems available</u>	<u>Tuesday 2 May 2023</u>	<u>Testing period begins for participants. AEMO assistance available if required</u>
<u>MCPI compliance holiday finishes</u>	<u>Monday 1 May 2023</u>	<u>A specific time period where AEMO has granted temporary relief to participants to comply with procedural obligations</u>

## Proposed Timeline

<b>B2B and B2M aseXML schema r43</b>	Tuesday 2 May 2023	B2B and B2M aseXML schema r43 effective
<b>Pre-production testing begins</b>	Tuesday 2 May 2023	Participant testing in the pre-production environment
<b>Related Documents publication</b>	Tuesday 2 May 2023	Release of guides and resources mentioned in Related documents on page 7
<b>Pre-production effective rule change</b>	Thursday, 4 May 2023	Rule change becomes effective in the pre-production system
<b>MSUG pre-production review</b>	Thursday, 4 May 2023	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.
<b>Production implementation</b>	Monday 22 May 2023 – Sunday 28 May 2023 (TBC)	AEMO implements the release to production
<b>Production systems available</b>	Monday 29 May 2023	Production systems available to participants
<b>Production effective rule change</b>	Tuesday, 30 May 2023	MSATS Procedures 5.4 effective
<b>Production CR validations commence</b>	<b>TBC</b>	AEMO validates CRs with new Standing Data items.
<b>MSUG: post-production review</b>	<u>Wednesday, 14 June 2023</u>	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
<b>LCCD effective date</b>	<u>Wednesday 1 November 2023</u>	<u>Data released to populate the Last Consumer Change Date field</u>
<b>MSDR compliance holiday finishes (exc. GPS)</b>	Tuesday 7 November 2023	Compliance holidays finish

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Proposed Timeline

GPS compliance holiday finishes	Friday 7 November 2025
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### 3 Participant Impact

To comply with this Release, participants must:

- 1. Schedule staff and resources to upgrade your B2M and B2B aseXML schemas to r43, see [aseXML r43](#).
- 2. Download and install upgraded software versions, see [Related software](#).

#### 3.1 B2B Procedures 3.7

No change to PersonNameTitle and PersonGivenName fields	No change, the fields are still mandatory
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#### 3.2 User Rights Management (URM)

Participant Users must have the following user rights entities to access new transactions and reports provided by their company's Participant Administrator in the MSATS Web Portal > Administration > Maintain Rights menu.

##### 3.2.1 Shared fuse notification

To create new Shared Fuse Notification transactions via the B2B Browser.

Entity	Type
Shared Fuse Notification	Interactive

##### 3.2.2 RM51 Regulated SAPS Generation Reconciliation report

For access to the RM51 report.

Entity	Type
MDM Reports	- Interactive - Batch

3.3 aseXML r43

AEMO encourages participants currently using aseXML schema version r39\_p1 to migrate to aseXML schema version r43 prior to this Release. For help transitioning, see [Transition of aseXML](#).

3.3.1 aseXML B2B schema r43

Current B2B aseXML schema	Superseded B2B aseXML schema
r43	r41

3.3.2 B2B schema transforms

Receiving version	Transforms
r43	r41 to r43
r41	r43 to r41

For details, see [B2B aseXML schema](#).

3.3.3 aseXML B2M schema r43

LATEST	CURRENT	SUPERSEDED
r43	r43	r42

For details, see [B2M aseXML schema](#).

#### 3.3.4 B2M aseXML schema preference lower than r43

For participants having a B2M aseXML schema preference lower than r43 the **new aseXML items** are removed from Message Responses with a comment flagging the removal in the transformed aseXML Payload.

#### 3.3.5 B2M aseXML schema transition

For details, see **B2M schema release implementation**.

3.3.6 aseXML schema change impact summary

For details, see:

- [New or changed B2B schema elements](#)
- [New or changed B2M schema elements](#)
- [aseXML r43 Draft Files and Changes](#)

Affected files	New	Modified	Derived	Versioned	Possible affected transactions
aseXML_r43	n/a	Included file versions	n/a	File name	n/a
CATSTableReplication_r43	ParticipantRolesRow RoleCategory MSATSCodeGroupsRow MSATSCodesDatedRow MSATSCodeComboRow MSATSCodesRow NodeHierarchyRow MSATSCodeGroup MSATSCodeTableType MSATSCode	MSATSCodeValue ElectricityNMIMasterRow ElectricityNMIMasterRowBD T ElectricityCATSChangeRequestNMIMasterRow	n/a	File name ElectricityNMIMasterRow ElectricityNMIMasterRowBD T ElectricityCATSChangeRequestNMIMasterRow	ReplicationNotification
Common_r43	RoleCategory	n/a	n/a	File name	n/a
Electricity_r43	n/a	ElectricityStandingData	n/a	File name ElectricityStandingData	n/a

Affected files	New	Modified	Derived	Versioned	Possible affected transactions
ElectricityMasterStandingData_r43	LastConsumerChangeDate	ElectricityNMIMasterGroup ElectricityMasterStandingData	ElectricityCATSChangeRequestNMIMasterRow ElectricityNMIMasterRowBDT ElectricityNMIMasterRow	File name ElectricityStandingData	NMISTandingDataResponse ReportResponse CATSChangeRequest Not available for NMID2
Events_r43	n/a	n/a	n/a	File name	n/a
MDMTReports_r43	MDMTSettlementCaseDetails ReportParameters	n/a	n/a	File name	n/a
OneWayNotification_r43	SharedFuseNotification	n/a	n/a	File name	SharedFuseNotification
Transactions_r43	SharedFuseNotification	n/a	n/a	File name	SharedFuseNotification

### 3.4 B2B impact

Item	Change	Impact
<b>B2B e-Hub APIs</b>	Shared Fuse Notification	Updated APIs
<b>PersonNameTitle</b> <b>PersonGivenName</b>	No change	<b>Still mandatory</b>
<b>Shared Fuse Notification</b>	Introduces new obligations for Retailers and MCs to provide information to the DNSP regarding the shared fuse status at a site	<b>Mandatory for AEMO and Industry to comply with Procedural requirements</b>

### 3.5 B2M impact

Item	Change	Impact
<b>Blind Update Tool (BUT)</b>	Updated to include HouseNumberToSuffix and Last Consumer Change Date	Additional information
<b>Bulk Data Tool (BDT)</b>	Updated to include HouseNumberToSuffix and Last Consumer Change Date	Additional information
<b>CATS and MDM reports</b>	Updated <b>MSATS C1, C4, C7, Snapshot</b> reports A new <b>RM51 report</b>	New and updated reports
<b>Change Reason Codes</b>	Roles that can use CRs to set and maintain the HouseNumberToSuffix	Additional information
<b>CR3101 change network tariff code</b>	Retrospectively update a CATS_REGISTER_IDENTIFIER Network Tariff Code (NTC) for a NMI Status Code of G (Greenfield Site NMI)	Enhancement
<b>HouseNumberToSuffix</b>	Updated in B2M Transactions, CATS Notification Rules, Standing Data Access Rules, NMI Discovery, NMI Standing Data, and B2M Transforms	Optional

## Participant Impact

Item	Change	Impact
<b>Last Consumer Change Date (LCCD)</b>	New Change Requests 5056 & 5057 The Last Consumer Change Date is added to the <b>Consumer Data Right</b> API <a href="#">The aseXML structure for the LCCD is available in this Release</a>	<b>Mandatory</b> for CRs 5056 & 5057 only <a href="#">The data is not populated until the November Release</a>
<b>MDM reports</b>	New <b>RM51 report</b>	New report
<b>NMI Discovery Type 2</b>	HouseNumberToSuffix added	Additional information
<b>NMI Discovery Type 3 (NMID3)</b>	Extension of the current 130-Business Day limitation	<b>Obtain FRMP Role data</b>
<b>SAPs Role Category</b>	To support the new SAPs Role Category, the definition of Participant Role includes a RoleCategory in the CATS_PARTICIPANT_ROLES table	Additional information
<b>Shared Isolation Point Flag</b>	Change Request 5XXX series	Mandatory
<b>User Rights Management (URM)</b>	A new user rights entity to create new Fuse Notification transactions	Participant User Rights update: Shared Fuse Notification

# 4 B2B

## 4.1 B2B aseXML schema

### 4.1.1 B2B schema changes summary

Project	Change
B2B v3.8	New One Way Notification - SharedFuseNotification transaction indicating the current status of a shared fuse arrangement

### 4.1.2 B2B aseXML schema versions and transforms

After the 49.0 release implementation, the B2B schema has the following supported schema versions and transforms:

For help transitioning your B2B aseXML schema, see B2B aseXML schema, Basic steps to transition, and Transition timing.

Receiving version	Transforms	Transaction groups
r43	r41 to r43	MTRD, SORD, MRSR, CUST, SITE, OWNX, NPNX & PTPE
r41	r43 to r41	MTRD, SORD, MRSR, CUST, SITE, OWNX, NPNX & PTPE
Other versions	None	MTRD, SORD, MRSR, CUST, SITE, OWNX, NPNX & PTPE



B2B transforms only occur between the current and superseded versions of the B2B aseXML schema.

4.1.3 B2B schema release implementation

During the **pre-production and production implementations**, participants' preferences for each of their receiving B2B Transaction group is transitioned by AEMO in the **B2B Browser > Transforms and Protocol** interface as follows:

B2B status prior to MSATS 49.0 release	Description	During 49.0 implementation	B2B status after MSATS 49.0 release
r38	Send and receive files compliant to the current B2B aseXML version	Participants transform to the new schema version	r43
r_any	Send and receive files in any supported B2B aseXML version r_any is a status, not a schema version. It means you receive files in the version they were sent with no transformation.	Participants remain on r_any	r_any

Despite the schema version of the Initiator, recipients specify which schema version they receive B2B aseXML schema files in.

When a Recipient sends a message acknowledgment in a schema version other than aseXML r43, the B2B e-Hub transforms from rN to r43.

4.1.4 New or changed B2B schema elements

aseXML element	aseXML Path	Data type	Schema file	Procedure use
IdentifiedDate	SharedFuseNotification/	Element xsd:date	OneWayNotification_r43	Mandatory
NMI	SharedFuseNotification/	Element xsd:string length: 10	OneWayNotification_r43	Mandatory

aseXML element	aseXML Path	Data type	Schema file	Procedure use
SharedFuseNotification	OneWayNotification/ Transaction/	Complex xsd:string maxLength: 1	OneWayNotification_r43 Transactions_r43	Optional
SharedIsolation PointFlag	SharedFuseNotification/	Element xsd:string maxLength: 1	OneWayNotification_r43	Mandatory
Version	XML > version	xsd:string	aseXML_r43 ClientInformation_r43 OneWayNotification_r43 Transactions_r43 Events_r43	n/a

For examples of file changes, see [aseXML r43 Draft Files and Changes](#).

4.2 Shared fuse notification

4.2.1 Shared fuse notification transaction

Name	SharedFuseNotification
Purpose	Used to inform a Recipient of any new or changed Shared Fuse Arrangements for a Connection Point Includes the date the Shared Fuse Arrangement was determined and a value indicating the shared fuse status for the Connection Point (identified by the NMI)
Initiator	MC, MP, or Retailer
Recipient	DNBP
Transaction type	One Way Notification
Transaction group	OWNX
Process	One Way Notification Process v3.8

Sub-type	No sub-type
aseXML version	r43
Procedure use	Optional
Payload	Can contain one or more SharedFuseNotification transactions

4.2.2 Shared Fuse Notification message exchange

Participants can use the new Shared Fuse Notification with the following interfaces:

- B2B e-Hub > B2BMessagingAsync
- B2B e-Hub > B2BMessagingSync
- B2B e-Hub > B2BMessagingPull
- B2B Browser > B2B Inbox, B2B Outbox, B2B Archive, and B2B Inbox Archive
- B2B Browser > B2B Hub Queue
- B2B Browser > New Transaction > One Way Notification
- B2B Browser > Upload File
- B2B Browser > Search Hub Trans Log
- B2B Browser > Transforms and Protocols
- B2B Responder > Search and Paste Transactions
- FTP > Participant File Server Folders

The B2B e-Hub does not validate the Payload of B2B transaction messages.

4.2.3 B2B e-Hub shared fuse notification

B2BMessagingAsync

The following occurs when the Initiator’s OWNX protocol preference with a SharedFuseNotifications message is B2BMessagingAsync.

### Valid transaction

If the Transaction Payload is schema valid, a positive hub acknowledgment returns in the synchronous message response:

- Business Signal: Hub Acknowledgement
- ase:Status: Accept

### Invalid transaction

If the Transaction Payload is schema invalid, a negative hub acknowledgment returns in the synchronous message response:

- Business Signal: Hub Acknowledgement
- ase:Status: Reject

### Accept message acknowledgment

The Recipient's ACCEPT Message Acknowledgment is sent to the Initiator:

- Business Signal: ase:MessageAcknowledgement
- ase:Status: Accept

### Reject message acknowledgment

The Recipient's REJECT negative Message Acknowledgment is sent to the Initiator:

- Business Signal: ase:MessageAcknowledgement
- ase:Status: Reject

### Accept transaction acknowledgment

The Recipient's ACCEPT Transaction Acknowledgment is sent to the Initiator:

- Business signal: .TACK / ase:TransactionAcknowledgements
- ase:Status: Accept or Partial

### Reject transaction acknowledgment

The Initiator's REJECT negative Message Acknowledgment is sent to the Initiator:

- Business signal: .TACK / ase:TransactionAcknowledgements
- ase:Status: Reject

## MACK-for-TACK

The Initiator can MACK a Recipient's TACK by submitting a MACK:

- Business Signal: MACK-for-TACK / ase:MessageAcknowledgement
- ase:Status: Accept

## Transaction message

The Initiator's Transaction Message is sent to the Recipient:

- Business Document: ase: SharedFuseNotification
- Status: n/a

## Retrieve metadata for queued messages

The Recipient can retrieve metadata for queued messages for delivery from the B2B e-Hub Queue:

- Business Document: ase: HubQueueReport
- Status: n/a

## B2BMessagingSync

The following occurs when the Initiator's OWNX protocol preference with a SharedFuseNotifications message is B2BMessagingSync.

## Invalid transaction

If the Transaction Payload is invalid, a negative hub acknowledgment returns in the synchronous message response:

- Business Signal: Hub Acknowledgement
- ase:Status: Reject

## Reject message acknowledgment

The Recipient's REJECT negative Message Acknowledgment returns in the synchronous message response:

- Business Signal: ase:MessageAcknowledgement
- ase:Status: Reject

### Accept transaction acknowledgment

The Recipient's ACCEPT Transaction Acknowledgment returns in the synchronous message response:

- Business signal: TACK / ase:TransactionAcknowledgements
- ase:Status: Accept or Partial

### Reject transaction acknowledgment

The Recipient's REJECT negative Message Acknowledgment returns in the synchronous message response.:

- Business signal: TACK / ase:TransactionAcknowledgements
- ase:Status: Reject

### Transaction message

The Initiator's is sent to the Recipient:

- Business Document: ase: SharedFuseNotification
- Status: n/a

### B2BMessagingPull

The following occurs when the Initiator's OWNX protocol preference with a SharedFuseNotifications message is B2BMessagingPull.

### Valid transaction

If the Transaction Payload is schema valid, a hub acknowledgment returns in the synchronous message response:

- Business Signal: Hub Acknowledgement
- Status: Accept

### Invalid transaction

If the Transaction Payload is invalid, a negative hub acknowledgment returns in the synchronous message response:

- Business Signal: Hub Acknowledgement
- ase:Status: Reject

### Accept message acknowledgment

The Recipient's ACCEPT Message Acknowledgment is accessible by the B2B Browser > B2B Hub Queue interface:

- Business Signal: ase:MessageAcknowledgement
- ase:Status: Accept

### Delete a Recipient's Message Acknowledgment

The Initiator can delete a Recipient's Message Acknowledgment using the B2BMessagingPull /messageAcknowledgements resource:

- Business Signal: ase:MessageAcknowledgement
- ase:Status: Accept or Reject

### Retrieve metadata for queued messages

The Recipient can retrieve metadata for queued messages for delivery from the B2B e-Hub Queue:

- Business Document: ase: HubQueueReport
- Status: n/a

### Retrieve messages queued for delivery from the B2B e-Hub

The Recipient can retrieve Transaction Messages queued for delivery in the B2B e-Hub Queue:

- Business Document: ase: SharedFuseNotification
- Status: n/a

### Retrieve messages queued for delivery from the B2B Browser

The Recipient can retrieve Transaction Messages queued for delivery in the B2B e-Hub using the B2B Browser > B2B Hub Queue interface:

- Business Document: ase: SharedFuseNotification
- Status: n/a

### Transaction payload validations

The OWNX Transaction Message containing SharedFuseNotifications:

- Submitted by an Initiator to the B2B e-Hub must be less than 1 MB (1024000 bytes) uncompressed.
- Filename must begin with OWNX.
- messageContextID must begin with OWNX.
- Must contain Header sub-elements matching the specification in section 9.2 of the [Guidelines for Development of A Standard for Energy Transactions in XML \(aseXML\) v4.1](#)

#### 4.2.4 B2B browser

##### B2B archive

View OWNX Transaction Messages archived to a Participant's File Server folder in the **B2B Browser > B2B Archive**.

The B2B Browser creates transactions in aseXML Schema version r43.

##### B2B hub queue

In the **B2B Browser > B2B Hub Queue** interface, for OWNX Transaction Messages containing SharedFuseNotifications Transactions, participants can:

- Search, view, and download queued messages.
- Acknowledge messages queued messages.
- Delete queued message acknowledgments.

##### B2B inbox

In the B2B Browser > B2B Inbox interface, for OWNX Transaction Messages containing SharedFuseNotifications Transactions, participants can:

- Search, view, and download messages.
- Delete messages.
- Delete message acknowledgments.



B2B outbox

In the B2B Browser > B2B Inbox interface, for OWNX Transaction Messages containing SharedFuseNotifications Transactions, participants can:

- Search, view, and download messages.
- Delete message acknowledgments.

New transaction

The Transaction Type drop-down in the B2B Browser > **New Transaction > Create New Transaction** interface includes the transaction type: Shared Fuse Notification.

Create transaction – shared fuse notification

Header fields

Create Transaction - One Way Notification		Participant ID:	NEMMCO
		Participant Name:	Australian Energy Market Operator Limited
Header			
From (*):	NEMMCO		
To (*):	<input type="text"/>		
Message ID (*):	<input type="text" value="B2BM1669593027767000"/>	Message Date (*):	28-Nov-2022 09:50:27
Transaction Group (*):	OWNX	Priority (*):	Medium
Market (*):	NEM		

Transaction fields

Shared Fuse Notification			
Transaction ID (*):	<input type="text" value="B2BT1669594427904000"/>	Transaction Date:	28-Nov-2022 10:13:47
NMI (*):	<input type="text"/>	NMI Checksum:	<input type="text"/>
Shared Isolation Point Flag (*):	<input type="text"/>	Identified Date (*) (dd-MMM-yyyy):	<input type="text"/>
<div>Create Validate Download Reset</div>			

## Field explanation

Field	Editable	Default value	Status	Description
From	No	Participant ID	Mandatory	Transaction Initiator
To	Yes	n/a	Mandatory	Transaction Recipient Populated with Participant IDs who, can receive this transaction type: LNSP, RP, FRMP, or LR
Message ID	Yes	B2BM + [0-9]{16,16}	Mandatory	Message identifier
Message Date	No	Current date time	Mandatory	Message date
Transaction Group	No	OWNX	Mandatory	Transaction Group
Priority	Yes	Medium	Mandatory	Transaction priority
Market	No	NEM	Mandatory	Market
Transaction ID	Yes	B2BT + [0-9]{16,16}	Mandatory	Transaction identifier
Transaction Date	No	Current Date Time	Mandatory	Transaction date
NMI	Yes	n/a	Mandatory	Transaction NMI
NMI Checksum	Yes	n/a	Mandatory	NMI Checksum
Identified Date	Yes	n/a	Mandatory	The date the Initiator identified the current Shared Fuse Arrangement
Shared Isolation Point Flag	Yes	n/a	Mandatory	Shared Isolation Point Flag Value: - Y: A Shared Fuse Arrangement is present - N: No Shared Fuse Arrangement is present - I: The metering installation is isolated independently but is still part of a Shared Fuse Arrangement

Upload file

FTP protocol

If the Initiator's OWNX protocol preference is FTP, an OWNX Transaction Message containing SharedFuseNotifications using the **B2B Browser > Upload File** interface is delivered to the B2B Inbox.

API protocol

If the Initiator's OWNX protocol preference is API, an OWNX Transaction Message containing SharedFuseNotifications using the **B2B Browser > Upload File** interface is processed by AEMO. If the Transaction Message Payload is:

- Schema valid an Accept acknowledgment displays on the interface.
- Schema invalid a Reject acknowledgment displays on the interface.

Search hub trans Log

The Transaction Type drop-down in the **B2B Browser > Search Hub Trans Log** interface contains the Shared Fuse Notification as a selectable value for searching for transaction details, downloading transactions, and acknowledging messages:

<screenshot>

The **B2B Browser > Search Hub Trans Log > View Message** interface displays the following details for Shared Fuse Notification Transactions:

Transaction Details	Editable	Description
Transaction ID	No	SharedFuseNotificationTransaction ID
Transaction Type	No	Shared Fuse Notification
NMI	No	SharedFuseNotification transaction NMI
Initiating Transaction ID	No	n/a
Action	No	The Reject action supported.

<screenshot>

Transforms and protocol

In the B2B Browser > Transforms and Protocol, for OWNX Transaction Messages containing SharedFuseNotifications Transactions, participants can see:

- The FTP B2B Outbox unacknowledged Transaction Message total count.
- The FTP B2B Outbox undeleted acknowledgements total count.
- The B2B Hub Queue unacknowledged Transaction Message total count.
- The B2B Hub Queue undeleted acknowledgements total count.
- The parked Transaction Message total count.
- The parked Acknowledgements total count.

On completion of a schema transition, the participants' parkbox removed from the parked message total.

4.2.5 B2B responder

In the **B2B Browser > B2B Responder** interface, for OWNX Transaction Messages containing SharedFuseNotifications Transactions, participants can:

- Create Transactions for the r43 schema.
- Search Transactions.

4.2.6 B2B validation module and validation matrix

The B2B Validation Module Software and matrix define the OWNX SharedFuseNotification transaction type as follows:

Field	Data type	Field validation rule	Status
InitiatorID	VARCHAR(10)	Length	M
RecipientID	VARCHAR(10)	Length	M
NMI	CHAR(10)	Length	M
NMIChecksum	CHAR(1)	Checksum validated against NMI Numeric	O
IdentifiedDate	DATE	Date yyyy-MM-dd	M

Field	Data type	Field validation rule	Status
SharedIsolationPointFlag	CHAR(1)	Length	M

4.2.7 Shared fuse notification scenarios

Scenario 1 Transaction message with a single shared fuse notification

Participants' B2B aseXML schema version (schema) preferences:

- Initiator: r43
- Recipient: r41

The Initiator's Transaction message contains: 1 SharedFuseNotification OWNX (r43 schema) payload.

AEMO delivers the message to the Recipient in the r43 schema (there is no transform).

The Recipient's system rejects the whole message because it is delivered in an unsupported schema version.

Solution: To receive the SharedFuseNotification OWNX (r43 schema) payload upgrade to the r43 schema.

Scenario 2 Transaction message with bundled shared fuse notification

Participants' B2B aseXML schema version (schema) preferences:

- Initiator: r43
- Recipient: r41

The Initiator's Transaction message contains:

1. Notified Party OWNX (r43) payload
2. Notified Party OWNX (r43) payload
3. SharedFuseNotification OWNX (r43) payload

AEMO delivers all transactions to the Recipient in the r43 schema (there is no transform).

Solution: To receive the SharedFuseNotification OWNX (r43 schema) payload upgrade to the r43 schema.

# 5 B2M

## 5.1 B2M aseXML schemaB2M schema changes summary

Project	Change
MSATS Standing Data Review (MSDR)	<p>New complex elements supporting the new C1 replication codes tables report:</p> <ul style="list-style-type: none"><li>- MSATSCodeGroupsRow</li><li>- MSATSCodesDatedRow</li><li>- MSATSCodeComboRow</li><li>- MSATSCodesRow</li></ul> <p>Increase the length of the MSATSCodeValue from 15 to 100</p> <p>Existing version attribute updated for MSATSCodeValuesRow from r19 to r43</p>
Consumer Data Right (CDR)	<p>A new element for more complete Standing Data:</p> <ul style="list-style-type: none"><li>- LastConsumerChangeDate of type date added to the existing ElectricityNMIMasterGroup in the ElectricityMasterStandingData schema file</li></ul> <p>Update existing version attribute from r42 to r43:</p> <ul style="list-style-type: none"><li>- ElectricityNMIMasterRow</li><li>- ElectricityNMIMasterRowBDT</li><li>- ElectricityCATSChangeRequestNMIMasterRow</li><li>- ElectricityStandingData</li></ul>
Stand-Alone Power Systems (SAPS)	<p>New elements:</p> <ul style="list-style-type: none"><li>- NodeHierarchyRow for the node hierarchy table</li><li>- MDMTSettlementCaseDetailsReportParameters for the new Regulated SAPS Generator Reconciliation report providing FRMPs with the energy values used to calculate the Generator allocation within a settlement run</li><li>- RoleCategory for the ParticipantRolesRow</li></ul>

### 5.1.1 B2M aseXML schema versions

After the 49.0 Release, the B2M schema has the following supported schema versions for CATS, NMID, and MDMT transaction types:

LATEST	CURRENT	SUPERSEDED
r43	r43	r42

For help transitioning your B2M aseXML schema, see B2M aseXML schema, Basic steps to transition, and Transition timing.

### 5.1.2 B2M schema release implementation

During the **pre-production and production implementations**, participants' preferences for their B2M transaction receiving schema version is transitioned by AEMO in the **MSATS Web Portal > Participants > Participant Schema** as follows:

Before 49.0 release			During 49.0 implementation	After 49.0 release	
Transaction group	B2M participant schema	Outbound schema version		B2M participant schema	Outbound schema version
CATS	LATEST	r39_p1	AEMO transitions participants on LATEST to r43 for continued compliance	LATEST	r43
NMID	LATEST	r42		LATEST	r43
CATS	CURRENT	r42	Participants on CURRENT remain on r42, with the setting changed to Superseded. Participants can choose when to transition to the new Current/Latest setting	SUPERSEDED	r42
NMID	CURRENT	r42		SUPERSEDED	r42
CATS	SUPERSEDED	r39_p1	AEMO transitions participants on the SUPERSEDED version r39_p1 to the new Superseded version r42. r39_p1 and earlier versions are unsupported; all responses return in r42	SUPERSEDED	r42
NMID	SUPERSEDED	r39_p1		SUPERSEDED	r42

**AEMO encourages participants currently using aseXML schema version r39\_p1 to migrate to aseXML schema version r43 prior to this Release. For help transitioning, see [Transition of aseXML](#).**

### 5.1.3 New or changed B2M schema elements

aseXML element	aseXML Path	Data type	Schema file	Procedure use
Code	MSATSCodesDatedRow/ ReplicationDateRangeRow MSATSCodesRow/ ReplicationBaseRow	Element MSATSCode xsd:string minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional
Code1	MSATSCodeComboRow/ ReplicationDateRangeRow	Element MSATSCode xsd:string minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional
Code2	MSATSCodeComboRow/ ReplicationDateRangeRow	Element MSATSCode xsd:string minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional
Code3	MSATSCodeComboRow/ ReplicationDateRangeRow	Element MSATSCode xsd:string minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional
Code4	MSATSCodeComboRow/ ReplicationDateRangeRow	Element MSATSCode xsd:string minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional
Code5	MSATSCodeComboRow/ ReplicationDateRangeRow	Element MSATSCode xsd:string minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional



aseXML element	aseXML Path	Data type	Schema file	Procedure use
CodeGroup	MSATSCodeComboRow/ ReplicationDateRangeRow MSATSCodeGroupsRow/ ReplicationBaseRow MSATSCodesRow/ ReplicationBaseRow MSATSCodesDatedRow/ ReplicationDateRangeRow	Element MSATSCode Group xsd:string minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional
CodeGroup LastChanged	MSATSCodeGroupsRow/ ReplicationBaseRow	Element xsd:dateTime	CATS Table Replication _r43	Optional
CodeTable	MSATSCodeGroupsRow/ ReplicationBaseRow	Element MSATSCode TableType xsd:string minLength: 1 maxLength: 15	CATS Table Replication _r43	Optional
Description	MSATSCodeGroupsRow/ ReplicationBaseRow MSATSCodeComboRow/ ReplicationDateRangeRow MSATSCodesDatedRow/ ReplicationDateRangeRow MSATSCodesRow/ ReplicationBaseRow	Element MSATSCode ValueDescription minLength: 1 maxLength: 200	CATS Table Replication _r43	Optional
HouseNumber ToSuffix	ElectricityNMIMasterGroup/	Element xsd:string Pattern: \p{L}\p{N}}{1}	Electricity Master Standing Data _r43	Optional
LastConsumer ChangeDate	ElectricityNMIMasterGroup/ ElectricityMasterStandingData/	Element xsd:date	Electricity Master Standing Data _r43	Mandatory for new <b>CR codes: 5056 &amp; 5057</b> Optional for other CRs
MDMT SettlementCase DetailsReport Parameters	MSATS Report - RM51	Complex	MDMTReports _r43	Optional

aseXML element	aseXML Path	Data type	Schema file	Procedure use
MSATSCode	MSATSCode	Element minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional
MSATSCode ComboRow	MSATS_CODE_COMBOS	Complex	CATS Table Replication _r43	Optional
MSATSCode GroupsRow	MSATS_CODE_GROUPS	Complex	CATS Table Replication _r43	Optional
MSATSCode TableType	MSATS_CODE_GROUPS	Element Xsd:string minLength: 1 maxLength: 15	CATS Table Replication _r43	Optional
MSATSCodeGroup	MSATSCodesRow	Element minLength: 1 maxLength: 50	CATS Table Replication _r43	Optional
MSATSCodes DatedRow	MSATS_CODES_DATED	Complex	CATS Table Replication _r43	Optional
MSATSCodes Row	MSATS_CODES	Complex	CATS Table Replication _r43	Optional
MSATSCodeValue	CodeValue	Element xsd: string minLength: 1 maxLength: 100	CATS Table Replication _r43	Optional
NMI	MDMTSettlementCase DetailsReportParameters/	Element NMIBase xsd:string length: 10	MDMTReports _r43	Optional

aseXML element	aseXML Path	Data type	Schema file	Procedure use
NodeHierarchyRow	NODE_HIERARCHY	Complex	CATS Table Replication _r43	Optional
NodeName	NodeHierarchyRow/ ReplicationDateRangeRow	Element xsd:string	CATS Table Replication _r43	Optional
NodeType	NodeHierarchyRow/ ReplicationDateRangeRow	Element xsd:string	CATS Table Replication _r43	Optional
ParentNodeName	NodeHierarchyRow/ ReplicationDateRangeRow	Element xsd:string	CATS Table Replication _r43	Optional
ParentNodeType	NodeHierarchyRow/ ReplicationDateRangeRow	Element xsd:string	CATS Table Replication _r43	Optional
ProfileArea	MDMTSettlementCase DetailsReportParameters/	Element ProfileDescription	MDMTReports _r43	Optional
RoleCategory	ParticipantRolesRow > RoleCategory RoleIdentifier/	Element xsd:string maxLength: 15	CATS Table Replication _r43 Common__r43	Optional
SettlementCase	MDMTSettlementCase DetailsReportParameters/	Element MDMSettlement CaseIdentifier NonNegativeInteger totalDigits: 38	MDMTReports _r43	Optional
SettlementIndicator	NodeHierarchyRow/ ReplicationDateRangeRow	Element xsd:string	CATS Table Replication _r43	Optional

aseXML element	aseXML Path	Data type	Schema file	Procedure use
TransmissionNode Identifier	MDMTSettlementCase DetailsReportParameters/	Element	MDMTReports_r43	Optional
Value	MSATSCodeComboRow/ ReplicationDateRangeRow MSATSCodesDatedRow/ ReplicationDateRangeRow MSATSCodesRow/ ReplicationBaseRow	Element MSATSCode Value Element minLength: 1 maxLength: 100	CATS Table Replication_r43	Optional
Version	XML > version	Element xsd:string	aseXML_r43 Events_r43 CATS Table Replication_r43 Common_r43 Electricity_r43 Electricity Master Standing Data_r43 MDMTReports_r43	Optional

For examples of file changes, see [aseXML r43 Draft Files and Changes](#).

5.2 B2M 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.

Transforms from the LATEST r43 to the SUPERSEDED r42 notify the Recipient the elements are not supported in r42:

```
<!--[Replication Table Name] is not valid in aseXML r42. Please upgrade your aseXML schema to current or latest.-->
```

5.3 MCPI compliance holiday end

To support industry compliance with the MCPI rule change, the Shared Isolation Point Flag NMI Standing Data item was made mandatory on the 1 May 2022.

CR5000 series maintain NMI

AEMO introduced a compliance holiday CR5000 series Maintain NMI Change Requests until Monday 1 May 2023 when the SharedIsolationPointFlag becomes mandatory.

As the CR moves from Pending status to Completed, where a value is not supplied or is not populated in the NMI Details table, the CR moves from Pending to Rejected according to existing MSATS CR processing logic.

Event	Change Reason Code	Description
Maintain NMI	5050	Change NMI Details
	5051	
	5001	Backdate NMI Start Date
	5021	
	5060	Change NMI Details – Child
	5061	

## 5.4 ERCF enhancements

### 5.4.1 ICF064 - House Number To Suffix as a part of the Australian structured address standards

The ASWG added the HouseNumberToSuffix to the r42 schema in mid-November 2021 thinking it was a logical extension to the House Number To element.

From 30 May 2023, the HouseNumberToSuffix field is:

- Defined in the **CATS and WIGS Procedures**
- Included in MSATS CR processing for the CR2000 and CR5000 series.
- Included in NMI Discovery.

For more details, see [House number to suffix](#).

### 5.4.2 ICF065 - Extend the current 130 business day limitation on NMID3 requests

The 130-day constraint forces participants to rely on a manual email process to obtain the previous FRMP details. This Release changes the configuration of the current 130 business day limitation on NMI Discovery Type 3 (NMID3) to address this gap for all possible Change Reason Codes (IDT, MCR, NNS, OTR, SAB, TRI, TRM).

#### Obtaining FRMP role data

If the Participant ID has the active FRMP Role for the specified NMI and the FRMP change occurred up to 1000 Business Days in the past, they can obtain FRMP role data for the most recent previous FRMP using:

- FTP to their Participant Inbox directory.
- Legacy MSATS Web Services > NMIDetail
- API > B2MMessagingSync > getNMIDetail
- API > B2MMessagingAsync > submitMessages
- MSATS Web Portal > **NMI Information > NMI Discovery > Search Type 3 (Obtain Role Data)**.

### 5.4.3 ICF032 - Allow ENMs visibility to parent NMI Standing Data

This enhancement allows Embedded Network Managers (ENMs) to know when a TNI and DLF have changed on a Parent so they can meet their compliance requirement to maintain the Standing Data of Child NMIs.

**There are no planned changes to CR2021 validation of data synchronisation to the child NMIs.**

To support compliance requirements, AEMO send ENMs 2 weekly PMS reports:

1. DLFERR\_CHILD: Identifies where the DLF code assigned to the Child NMI is incorrect.
2. TNIERR\_CHILD: Identifies where an incorrect TNI is assigned to an Embedded Network NMI.

For report details, see also [DLFERR\\_CHILD](#) and [TNIERR\\_CHILD](#).

### 5.4.4 ICF047 - Updating Network Tariff for a Greenfield NMI

LNSPs cannot use a CR3101 to update the Network Tariff Code (NTC) on a Greenfield NMI as it is Rejected due to the G NMI status code Timeframe Rules. The LNSP must wait until the NMI is Active and then update the NTC manually.

After this Release the validation changes to allow the Current LNSP and ENM to use a CR3101 to Retrospectively update NMIs with a NMI Statue Code of G (Greenfield Site NMI) in the CATS\_REGISTER\_IDENTIFIER table.

5.5 NMI standing data structured address

Participant can submit via aseXML the following address structure for NMI Standing Data:

Address	aseXML address structure
1a - 5b Smith Street	<div><div>&lt;StructuredAddress&gt;</div><div><div>&lt;House&gt;</div><div>&lt;HouseNumber&gt;1&lt;/HouseNumber&gt;</div><div>&lt;HouseNumberSuffix&gt;a&lt;/HouseNumberSuffix&gt;</div><div>&lt;HouseNumberTo&gt;5&lt;/HouseNumberTo&gt;</div><div>&lt;HouseNumberToSuffix&gt;b&lt;/HouseNumberToSuffix&gt;</div><div>&lt;/House&gt;</div><div>&lt;Street&gt;</div><div>&lt;StreetName&gt;SMITH&lt;/StreetName&gt;</div><div>&lt;StreetType&gt;ST&lt;/StreetType&gt;</div><div>&lt;/Street&gt;</div></div><div>&lt;/StructuredAddress&gt;</div></div>

5.6 Last consumer change date

5.6.1 New ~~CR5056~~ and CR5057

There is a new change request: **Change NMI – Last Consumer Change Date** for FRMPs maintaining the mandatory Last Consumer Change Date Change with Change Reason Codes:

- Prospective Change: CR5056
- Retrospective Change: CR5057.

Deleted: CR 5056

The LCCD is enforced in the Field Validation Rules (not through the aseXML schema).

LCCD validation

Field	Procedure use	Validation	Code
Actual End Date	Optional	<del>yyyy-mm-dd</del>	

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Field	Procedure use	Validation	Code
Change Reason Code	Mandatory	In accordance with the Field Validation Rules	
Initiator	Mandatory	Must be the current FRMP on the CR submission and completion dates	5106
Jurisdiction	Mandatory	ACT, NSW, QLD, SA, TAS, VIC	
Last Consumer Change Date	Mandatory	<div>The LCCD is invalid when it is:<ul style="list-style-type: none"><li>- xsd:date</li><li>- Not a valid date (e.g. cannot be February 30)</li><li>- Not provided in the format YYYY-MM-DD</li><li>- Prior to 1900-01-01</li><li>- After 9999-12-31</li></ul></div> <div>The LCCD for a retrospective CR5057 must be less than or equal to the current date</div> <div>The LCCD for a prospective CR5057 must be less than the proposed change date</div>	3012
NMI	Mandatory	Must exist in MSATS	1113
NMI Checksum	Mandatory	In accordance with the Field Validation Rules	
NMI Classification Code		Must be SMALL, LARGE, WHOLESAL, GENERATR, NREG or DWHOLSAL	1168
Participant ID	Mandatory	In accordance with the Field Validation Rules	
Proposed Change Date	Mandatory	<div>Must be between:<ul style="list-style-type: none"><li>- For Prospective CRs: The current date + 1 day and current date + 65 Business Days</li><li>- Retrospective CRs: The current date - 1 Business Day and the current date</li></ul></div>	
Transaction ID	Mandatory	In accordance with the Field Validation Rules	

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Inserted Cells

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Moved up [3]: yyyy-mm-dd

Deleted: Last Consumer Change Date

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Deleted: Actual End Date

5.6.2 FRMP responsibility

FRMPs can correct the Last Consumer Change Date if they are aware the consumer changed.

There is no restriction on the date the current FRMP can provide. Once they verify the consumer's start date, they can update the LCCD to a retrospective date.

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5.6.3 CR1030 and CR1040

Where a transfer completes for a CR1030 or CR1040, the Last Consumer Change Date is populated by AEMO using the Actual Change Date.

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5.6.4 CATS\_NMI\_DATA

The Last Consumer Change Date field is in the table.

Table	Format
-------	--------

CATS\_NMI\_DATA dd-mmm-yyyy

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5.6.5 Change request status notification rules

The Last Consumer Change Date is included in the Change Request Status Notification Rules. The current LNSP, MDP, MPB, and RP receive the Completed status that includes the Last Consumer Change Date:

Status	FRMP		ENLR		LNSP		MDP		MPB		MPC		MC (RP)		RoLR		DRSP	
	New	Current	New	Current	New	Current	New	Current	New	Current	New	Current	New	Current	New	Current	New	Current
CAN	*	✓	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
COM	*	✓	*	*	*	✓	*	✓	*	✓	*	*	✓	*	*	*	*	*
OBJ	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PEND	*	✓	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
REJ	*	✓	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
REQ	*	✓	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

5.6.6 Standing data access rules

Field	Jurisdiction	Standing Data Access Rules											
		<u>DRSP</u>	FRMP	ENLR	LNSP	MDP	MPB	MPC	<u>MC (RP)</u>	RoLR	NEMM	NSP2	
Last Consumer Change Date	ALL	✖	✔	✖	✔	✔	✔	✖	✔	✖	✔	✖	

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5.6.7 NMI discovery

The Last Consumer Change Date is **not** available in NMI Discovery:

Field	Jurisdiction	NMI Discovery			
		NMID1	NMID2	NMID3	MC search
Last Consumer Change Date	ALL	*	*	*	*

5.6.8 NMI classification code

The NMI Classification Code for CR5056 and CR 5057 must be SMALL, LARGE, WHOLESAL, GENERATR, NREG or DWHOLSAL.

5.6.9 Objection rules

Objections are not permitted for a CR 5056 or CR 5057. If the CR passes validation and goes to Requested status, it proceeds directly to Pending status,

Deleted: CR5056 or CR5057

5.6.10 Completion rules

Where CR validation passes:

1. The LCCD value is updated for the NMI according to the **CATS History Model**.
2. Notifications are issued according to the **CR status notification rules**.

5.6.11 getUsageAPI

The Last Consumer Change Date is added to the [Consumer Data Right](#) > getUsageAPI.

5.6.12 MSATS web portal

Access

In compliance with the Standing Data Access Rules, the following participant roles can view the LCCD field in the MSATS web portal:

- [LNSP](#)
- [MDP](#)
- [MPB](#)
- [MC \(RP\)](#)
- [FRMP](#)

Change Request – [New/Edit] – NMI Standing Data

CR5056 and CR5057

When creating a CR5056 or CR5057 there is a new Last Consumer Change Date field for FRMPs in the **Change Request - New - NMI Standing Data** interface.

The screenshot shows a web interface titled "Change Request - New - NMI Standing Data". The interface has a blue header bar with the title. Below the header, there is a form area with a label "Last Consumer Change Date" followed by a text input field. At the bottom of the form, there are three buttons: "Save", "Clear", and "Cancel".

NMI Information> NMI Master > NMI Master – View

There is a new Last Consumer Change Date field in the **NMI Information> NMI Master > NMI Master – View** interface for FRMPs viewing CATS\_NMI\_DATA records.

NMI Master View

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

[Go to:](#) [View Data Streams](#) [View Participant Relationships](#) [View Meter Registers](#) [NGATS Metering Data](#)

General Information:

WPI:

Classification Code: SMALL

Embedded Network ID (Parent):

Embedded Network ID (Child):

Start Date: 28-Aug-2021

WPI Status Code: A

Jurisdiction: VIC

Aggregate Flag: Y

TNI Code: VWR5

TNI2 Code:

DLF Code: PLES

End Date: 31-Dec-9999

Updated On: 31-Dec-9999

Address Information:

Building/Property Name:

Lot Number:

Flat/Unit:

House/Land:

Street:

Suburb/Locality:

UPID:

Unstructured Address 1:

Unstructured Address 2:

Unstructured Address 3:

Reader Class:

Customer Classification Code:

Customer Threshold Code:

SharedIsolationPointFlag:

ConnectionConfiguration:

SectionNumber:

DPNumber:

UNDPID:

Last Consumer Change Date:

Location Descriptor:

Type: F Number: 1

Type: Number:

House Number: 199

House Number Suffix:

House Number To:

Name:

Name Suffix:

Type: RD

State: VIC

Postcode: 3

Change Request - New - NMI Standing Data

Last Consumer Change Date

Deleted: 

Save Clear Cancel

5.6.13 C1, C4, and snapshot reports

The new SAPS Role Category is added to the CATS\_PARTICIPANT\_ROLES table.

The LCCD is included under Master Data Records in the C1, C4, and, snapshot reports.

In compliance with the Standing Data Access Rules, the following participant roles receive the LCCD field in the LCCD field in C1 report:

- LNSP
- MDP
- MPB
- MC (RP)
- FRMP

5.6.14 MSATS generic field names

AEMO uses the CND [nn] framework. Where possible, participants should use the Procedural field names defined in the **Standing Data for MSATS**. AEMO does not support participants using the Oracle database table and field names. For participants using the C1 CATS Transaction Field Validations report these are the new MSATS field name mappings.

Procedural field	MSATS field	Data type	Table
Last Consumer Change Date (LCCD)	CND_11	Date DD-MON-YYYY	CATS_NMI_DATA

5.6.15 LCCD FAQs

Who can update the LCCD and when?

FRMPs update the LCCD when they are aware the consumer changed.

Who receives the Last consumer change date in a C1 report?

In compliance with the Standing Data Access Rules, the following roles have access to the LCCD field in a C1 report:

- LNSP
- MDP
- MPB
- MC (RP)
- FRMP
- AEMO

If the LCCD changes are postponed, will the r43 schema still have the LCCD field?

Yes, the LCCD is in the r43 aseXML schema, but the field is not populated until the effective date (1 November 2023 **TBC**) so there are no obligations for participants to send CR5056 and CR5057 until then.

For CR5056 and CR5057, if participants remain on r42, do they receive a notification when the CRs complete?

They receive the notification with a comment flagging the removal of the unsupported fields.

5.7 House number to suffix

- Addition of House Number To Suffix to Australian Address.
- Addition of HouseNumberToSuffix as an NMI Standing Data item.
- Mappings of aseXML to CND and transforms.
- Updates to the CR2000 and CR5000 series change request logic to include HouseNumberToSuffix.
- The new NMI Standing Data item, HouseNumberToSuffix, used for NMI Discovery Search 2.
- Updates to the MSATS Browser to support the submission and viewing of HouseNumberToSuffix.
- Ability to view HouseNumberToSuffix using the following services:
  - CATS Reports (C1, C4, C7)
  - MSATS Snapshot Report
- Updates to the Bulk Data Tool (BDT) to include HouseNumberToSuffix.
- Updates to the Blind Update Tool (BUT) to include HouseNumberToSuffix.

5.7.1 NMI standing data

The following field is defined as a new data item for NMI Standing Data at the NMI level:

Field	Table	Data type	Default value	Procedure use
HouseNumberToSuffix	CATS_NMI_DATA	Varchar2 Max length 1 Pattern: \p{L}\p{N}]{1} a-z or A-Z or 0-9	Null	Optional

### 5.7.2 Change request status notification rules

The existing CATS notification rules apply to HouseNumberToSuffix. You can find a list of the current CATS notification rules by Change Reason Code in the following locations:

CR	Change reason code	Notification rule
Create NMI	2000	CATS Procedures Principles and Obligations section 9.1.8. Procedure for Management of WIGS NMIS 4.1.8.
	2001	
	2520	CATS Procedures Principles and Obligations section 9.4.7.
	2521	
	2020	CATS Procedures Principles and Obligations section 9.2.8. Procedure for Management of WIGS NMIS 4.2.8.
	2021	
	2500	CATS Procedures Principles and Obligations section 9.3.7. Procedure for Management of WIGS NMIS 4.3.7.
	2501	
Maintain NMI	5050	CATS Procedures Principles and Obligations section 12.3.7. Procedure for Management of WIGS NMIS 7.2.6.
	5051	
	5001	CATS Procedures Principles and Obligations section 12.2.10. Procedure for Management of WIGS NMIS 7.1.10.
	5021	
	5060	CATS Procedures Principles and Obligations section 12.5.7. Procedure for Management of WIGS NMIS 7.3.7.
	5061	
	5100	CATS Procedures Principles and Obligations section 15.1.7. Procedure for Management of WIGS NMIS 9.1.7.
	5101	



### 5.7.3 Standing data access rules

To comply with the Standing Data Access Rules, only participants with a current role for a NMI can query the HouseNumberToSuffix and Last Consumer Change Date in CATS report requests. The fields are accessible by the following Participant Roles:

Field	Jurisdiction	Standing Data Access Rights									
		FRMP	LR	LNSP	MDP	MPB	MPC	RP	RoLR	NEMM	NSP2
HouseNumberToSuffix	All	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
Last Consumer Change Date	All	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗

### 5.7.4 NMI discovery type 2 – obtain standing data

For a NMI Discovery Search 2, the HouseNumberToSuffix is available. If a NMI does not have a value for the HouseNumberToSuffix, the NMISTandingDataResponse does not contain the NMI Standing Data element.

The HouseNumberToSuffix is accessible using a NMI Discovery Search 2 for the following roles:

Data Item	Jurisdiction	Request an NMI Discovery Search 2									
		FRMP	LR	LNSP	MDP	MPB	MPC	RP	RoLR	NEMM	NSP2
HouseNumberToSuffix	ALL	✓	✗	✓	✗	✗	✗	✓	✗	✓	✗

### 5.7.5 Change reason code by role

The following tables describe which roles can use CRs to set and maintain the HouseNumberToSuffix:

Event	Change Reason Code	Initiating Role	Description
Create NMI	2000	New LNSP	Create NMI
	2001	New LNSP	
	2520	New LNSP	Create NMI, MDM Datastream & Metering Installation Details – Child NMI
	2521	New LNSP	
	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
	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 Updates	5100	AEMO	AEMO-Initiated Standing Data Updates
	5101	AEMO	

5.7.6 B2M transactions

Where a NMI currently has a value for HouseNumberToSuffix, participants can submit a NMISharingDataRequest transaction and receive a NMISharingDataResponse with the HouseNumberToSuffix element and value, if they have the following:

- They have a role allowing NMI Discovery Search 2 requests.
- A B2M CATS schema preference set to aseXML r43 or later.

The NMISharingDataResponse displays the value in the following aseXML r43 element:

Parent Element Name:	Element Name:
<MasterData>	<HouseNumberToSuffix>
</MasterData>	

5.7.7 B2M transforms

For participants whose B2M aseXML schema preference is lower than aseXML r42, MSATS removes the HouseNumberToSuffix element and adds a comment flagging the removal.

Deleted: r43,

5.7.8 Bulk data tool

The Bulk Data Tool (BDT) request transaction ase:CATSBulkDataRequest supports the aseXML schema version r43 for the ase:NMIStandingData element:

```
<NMIStandingData xsi:type="ase:ElectricityStandingData" version="r43">
```

The BDT ase:CATSBulkDataRequest supports the new NMI data XML types:

XML type	XPath to aseXML node
ase:House	HouseNumberToSuffix

The value for HouseNumberToSuffix in a CATSBulkDataRequest is validated using the following criteria:

- Regular expression pattern \p{L}\p{N}}{1}
- One character in length
- a-z or A-Z or 0-9

- The Initiating Role to establish a new NMI with a **HouseNumberToSuffix** using a CATSBulkDataRequest must be the New LNSP.
- The Initiating Role to update a NMI with a **HouseNumberToSuffix** using a CATSBulkDataRequest must be Current LNSP.

5.7.9 Blind update tool

The Blind Update Tool (BUT) supports participants' updates to the HouseNumberToSuffix value against an NMI.

5.7.10 MSATS web portal

Change Request – [New/Edit] – NMI Standing Data

CR2000 and CR5000 series

For CR 2000 and 5000 series, in the **Change Request – [New/Edit] – NMI Standing Data** interface, there is a new HouseNumberToSuffix text box in the Address section.

Address

Building/Property Name:

Lot Number:

Flat/Unit

Type:

Floor/Level

Type:

Street

House Number:

House Number Suffix:

House Number To:

House Number To Suffix:

Suburb/Locality (\*):

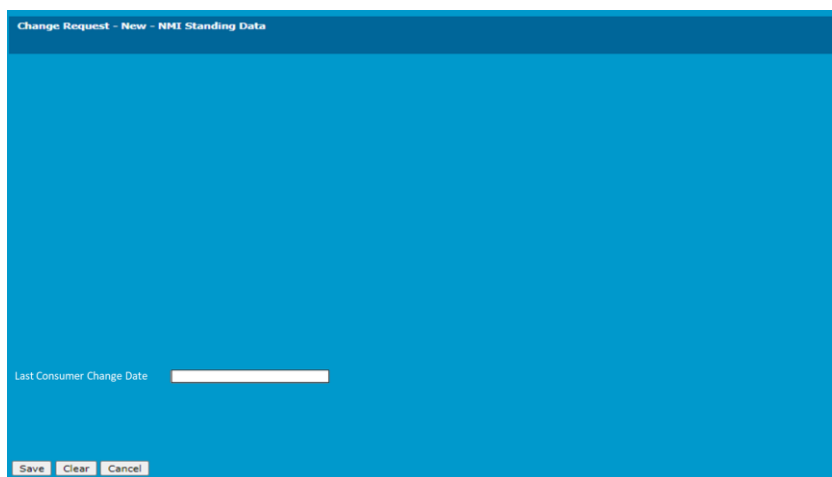
DPID:

Feeder Class:

Customer Threshold Code:

## CR5056 and CR5057

When creating a CR5056 or CR5057 there is a new Last Consumer Change Date field for FRMPs in the **Change Request - New - NMI Standing Data** interface.



The screenshot displays a web interface titled "Change Request - New - NMI Standing Data". The interface has a blue header bar with the title. Below the header, there is a large blue area. At the bottom of this area, there is a label "Last Consumer Change Date" followed by a white input field. Below the input field, there are three buttons: "Save", "Clear", and "Cancel".

5.7.11 NMI Information > obtain standing data – Results

The NMI Information > Obtain Standing Data – Results interface includes the new House Number To Suffix in the Address Information section.

Obtain Standing Data - Results

Participant ID:  
Participant Name:

[Go to:](#) [View Data Streams](#) [View Participant Relationships](#) [View Meter](#)

General Information:

NMI:

6407196861

Classification Code:

SMALL

Embedded Network ID (Parent):

Embedded Network ID (Child):

Start Date:

10-May-2022

NMI Status Code:

A

Address Information:

Building/Property Name:

Lot Number:

Flat/Unit

Type:

Number:

Floor/Level

Type:

Number:

Street

House Number: 26

House Number Suffix:

House Number To:

House Number To Suffix:

Suburb/Locality:

TEMPLESTOWE

DPID:

46305954

NMI Information> NMI Master > NMI Master – View

For participants with a role against the NMI, the **NMI Information> NMI Master > NMI Master – View** interface includes a label for HouseNumberToSuffix in the **Address Information** section.

NMI Master - View		Participant ID:	
		Participant Name:	
General Information:			
NMI:		6407196861	
Classification Code:		SMALL	
Embedded Network ID (Parent):			
Embedded Network ID (Child):			
Start Date:		10-May-2022	
NMI Status Code:		A	
Address Information:			
Building/Property Name:			
Lot Number:			
Flat/Unit		Type:	Number:
Floor/Level		Type:	Number:
Street		House Number: 26	
		House Number Suffix:	
		House Number To:	
		House Number To Suffix:	
Suburb/Locality:		TEMPLESTOWE	
DPID:		46305954	

NMI Information > Point In Time NMI Master Summary

For participants with a role against the NMI, the **NMI Information > Point In Time NMI Master Summary** interface includes a label for HouseNumberToSuffix in the address information section:

Point In Time NMI Master Summary

Participant ID:  
Participant Name:

Search Criteria

NMI (\*):

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

7-Dec-2022

As At Date (\*)  
(dd-mmm-yyyy):

Report Type (\*):

Summary

Partial NMI Data

Complete NMI Data

Search

Clear

NMI Data Items

General Information:

NMI:

Jurisdiction:

Classification Code:

SMALL

Aggregate Flag:

Embedded Network ID (Parent):

TNI Code:

Embedded Network ID (Child):

TNI2 Code:

Start Date:

10-May-2022

DUF Code:

Status Code:

A

End Date:

Activity Status:

A

Updated On:

Created On:

Address Information:

Building/Property Name:

Flat/Unit

Type: Number:

Floor/Level

Type: Number:

Street

House Number:26

House Number Suffix:

House Number To:

House Number To Suffix:

Name:ATHENRY

Name Suffix:

Suburb/Locality:

TEMPLESTOWE

State:VIC



Transactions > Change Request > Change Request – Summary

The Transactions > Change Request > Change Request – Summary interface includes a label for HouseNumberToSuffix in the NMI Standing Data section:

Change Requests - Summary

General Information:

Change Request ID:  
Change Request Status:  
NMI:  
Proposed Start Date:  
Actual Change Date:  
Related Request ID:  
Read Type Code:

9-Jul-2020

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: 26  
House Number Suffix:  
House Number To:  
House Number To Suffix:

Name: ATHENRY  
Name Suffix:  
  
State: VIC

Suburb/Locality:  
DPID:

TEMPLESTOWE  
46305954

Transactions > Notifications > Notifications – View

For participants with a role against the NMI, the Transactions > Notifications > Notifications – View interface includes a label for HouseNumberToSuffix:

<screenshot>

Point In Time NMI Master Summary

Search Criteria

NMI (\*):  
Business Date (\*):  
Report Type (\*):

6407196861  
7-Dec-2022  
Summary Partial NM

Search Clear

NMI Data Items

General Information:

NMI:  
Classification Code:  
Embedded Network ID (Parent):  
  
Embedded Network ID (Child):  
Start Date:  
Status Codes:  
Activity Status:

6407196861  
SMALL  
  
10-May-2022  
A  
A

Address Information:

Building/Property Name:  
  
Flat/Unit  
Floor/Level  
Street  
Suburb/Locality:

Type: Number:  
Type: Number:  
House Number:26  
House Number Suffix:  
House Number To:  
House Number To Suffix:  
TEMPLESTOWE

Deleted:

Change Requests - Summary

General Information:

Change Request ID:  
Change Request Status:  
NMI:  
Proposed Start Date:  
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  
House Number  
House Number  
House Number  
House Number

Suburb/Locality:  
DPID:

TEMPLESTOWE  
46305954

Deleted:

5.7.12 C1 report

Where a HouseNumberToSuffix value exists, participants can obtain it through a CATS C1 report request, if they have:

- A relationship to the NMI according to the Standing Data Access Rules.
- A B2M CATS schema preference set to aseXML.r43 or later.

The report response value displays in the following aseXML element:

Table name	Replication block	Row xsi type:	Element name
CATS_NMI_DATA	ElectricityNMIMaster	ElectricityNMIMasterRow	<HouseNumberToSuffix>

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5.7.13 C4 NMI master report

Where a HouseNumberToSuffix value exists, participants can obtain it through a CATS C4 report request, with report name: Master and report type: Detailed, if they have:

- A relationship to the NMI according to the Standing Data Access Rules.
- A B2M CATS schema preference set to aseXML.r43 or later.

The report response value displays in the following aseXML element:

Table name	Replication block	Row xsi type:	Element name
CATS_NMI_DATA	ElectricityNMIMaster	ElectricityNMIMasterRow	<HouseNumberToSuffix>

Moved (insertion) [5]

Moved (insertion) [6]

5.7.14 C7 new participant access report

Where a HouseNumberToSuffix value exists, participants can obtain it through a CATS C7 report request, if they have:

- A nomination for a role for the NMI in a CR1000 or CR6000 series Change Request in Requested(REQ), Pending (PEND), or Objected (OBJ) status.
- A relationship to the NMI according to the Standing Data Access Rules.
- A B2M CATS schema preference set to aseXML.r43 or later.

Moved (insertion) [7]

The report response value displays in the following aseXML element:

Parent element	Element name
<MasterData>	<HouseNumberToSuffix>
</MasterData>	

5.7.15 Snapshot report

Where a HouseNumberToSuffix value exists, participants can obtain it through a Snapshot report request.

The report response value displays in the following aseXML element:

Table name	Replication block	Row xsi type:	Element name
CATS_NMI_DATA	ElectricityNMIMaster	ElectricityNMIMasterRow	<HouseNumberToSuffix>

5.7.16 MSATS generic field names

AEMO uses the CND [nn] framework. Where possible, participants should use the Procedural field names defined in the **Standing Data for MSATS**. AEMO does not support participants using the Oracle database table and field names. For participants using the C1 CATS Transaction Field Validations report these are the new MSATS field name mappings.

Procedural field	MSATS field	Data type	Table	Details
HouseNumberToSuffix	CND_10	VARCHAR(500)	CATS_NMI_DATA	From this Release, participant submitted values for HouseNumberToSuffix must match the regular expression: - \p{L}\p{N}]{1} - One character in length - a-z or A-Z or 0-9

Moved (insertion) [8]

## 5.8 SAPS

For details about the SAPS project, see the SAPS Fact Sheets:

- [Metering](#)
- [Registration application](#)

### 5.8.1 SAPS registration and role code

This Release introduces:

- A new Registration Category called Market SAPS Resource Provider (MSRP) for connecting Generating Units on a SAPS. It can create and process Change Requests and B2B Transactions.
- A new Role Category field for storing the Registration Category, supporting the restriction of connections to the MSRP and SGA Registration Categories.
- Existing SGA Participant IDs' Role Category populated as SGA.

### 5.8.2 SAPS DLF code

A new SAPS DLF Code with a DLF factor of 1.0 in Codes Maintenance > DLF Codes:

DLF Codes - List							Participant ID:	NEMMCO
							Participant Name:	Australian Energy Market Oper
DLF Codes	Jurisdiction	DLF Code	DLF Value	Description	Start Date	End Date	Activity Status	Updated On
ALL	ALL	SAPS	1	SAPS - Stand Alone Power Systems	1-Jan-2023	31-Dec-9999	A	31-Dec-9999
ALL	ALL	UNIT		UNIT - DLF for Wholesale points along unit	5-Jan-1908	31-Dec-9999	A	31-Dec-9999

### 5.8.3 SAPS TNI codes

The TNI Codes:

- Are unique for each SAPS and have a structure participants must follow. It is a 4-character alphanumeric code consisting of two parts.
  - Part 1: The first character of the SAPS TNI code identifies the adoptive SAPS network:
  - Part 2: The next 3 characters, developed in conjunction with AEMO, identify a specific SAPS within an adoptive SAPS network.
- Have a unique TNI Code range assigned to each Distribution Network.

- Are grouped by Distribution Network.
- Are assigned a separate SAPS Profile Area.

The table below identifies each Distribution Network, the assigned Profile Area, and the TNI Code range:

TNI code (1 <sup>st</sup> character)	Local area network	Profile area
B	Ergon Energy	ERGONSAPS
C	Energex	ENERGXSAPS
E	Essential Energy	COUNTRYENGYSAPS
F	Ausgrid	ENERGYAUSTSAPS
G	Endeavour Energy	INTEGRALSAPS
H	ActewAGL	ACTEWAGLSAPS
J	Powercor	POWERCORAPS
K	Ausnet Services	TXUSAPS
L	Jemena	VICAGLSAPS
M	CitiPower	CITIPOWERSAPS
P	United Energy	UNITEDSAPS
R	SAPN	UMPLPSAPS
U	TasNetworks	AURORASAPS

#### 5.8.4 Assigning a SAPS NMI

Step	Who	Task
1.	DNSP	Engage with AEMO to create a unique TNI Code
2.	DNSP	Create NMI for the Generating Unit to the SAPS You can create a new SAPS when an existing NMI is being separated from the NEM but not for a new connection point. This is a rules requirement so does not have system validation. Once a SAPS is created a new connection is eligible to connect to an existing SAPS.
3.	AEMO	Assigns the NMI Classification Code: NREG
4.	DNSP	Assigns NMIs to a SAPS by updating each End Users NMI Standing Data using Change Requests: CR5050 or CR5051. The minimum attributes to update are: <ol style="list-style-type: none"> <li>1. TNI code</li> <li>2. SAPS TNI code</li> <li>3. DLF code</li> </ol> If a large number of NMIs require transferring, DNSPs can engage AEMO to use the <a href="#">Bulk Change Tool (BCT)</a> . For more details, see <a href="#">National Metering Identifier Procedure</a>

#### 5.8.5 SAPs affected change requests

Change reason code	Change request
Create NMI	2000, 2001 2020, 2021 2500, 2501 2520, 2521
Maintain NMI	5050, 5051 5060, 5061

### 5.8.6 New SAPS CR validations

This Release introduces new validations restricting the transfer of GENERATR NMIs to a SAPS. SGAs and MSRPs SAPS Generating Units are restricted to the NMI Classification Code: NREG.

Validation	Change request	Error code
FRMP (MSRP) is only connected to a Generating Unit where the NMI Classification Code = NREG	1000, 1010, 1030, 1040, 5050, 5051, 5060, 5061	1233 Cannot use this CR Code for a NMI with this NMI Classification Code, Registration Category, and Role Category
FRMP (SGA) is not connected to a SAPS NMI	1000, 1010, 1030, 1040, 5050, 5051, 5060, 5061	1232 Cannot use this CR Code for a NMI with this settlement indicator, Registration Category, and Role Category
FRMP (MSRP) is only connected to a SAPS NMI	1000, 1010, 1030, 1040, 5050, 5051, 5060, 5061	1232 Cannot use this CR Code for a NMI with this settlement indicator, Registration Category, and Role Category
SAPS NMI has a SAPS DLF assigned	2000, 2001, 2020, 2021, 2500, 2501, 2520, 2521, 5050, 5051, 5060, 5061	1230 Invalid DLF Code or settlement indicator combination
SAPS NMI does not have an Embedded Network Code	2000, 2001, 2020, 2021, 2500, 2501, 2520, 2521, 5050, 5051, 5060, 5061	1231 A NMI with this settlement indicator cannot be part of an Embedded Network
<u>SAPS NMI cannot have an active DRSP</u>	<u>2000, 2001, 2020, 2021, 2500, 2501, 2520, 2521, 5050, 5051, 5060, 5061</u>	<u>1234</u> <u>The NMI has an active DRSP</u>

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### 5.8.7 NMI discovery

Participants can use the existing NMI Discovery to search for SAPS TNIs by using the first character of the SAPS TNI Code.

### 5.8.8 SAPS standing data quality (SDQ)

This Release has the following updates and new Standing Data Quality (SDQ) reports related to the SAPS project.

AEMO sends results of Standing Data Quality checks to Participant IDs:

1. Every week in the RM29 Participant Standing Data Report with individual results and a summary.
2. Every month in the RM30 Monthly Snapshot of Participant Performance Report with a summary of each week (no individual results).

#### Modified: Incorrect DLFs for child NMIs created in MSATS

Field	Details
Query ID	DLFERR_CHILD
Long description	List of Child NMIs created in MSATS believed to have an incorrect DLF Code. Please investigate and correct the DLF code where applicable.
Changed	<ul style="list-style-type: none"> <li>- A child exclusion list, where a child NMI is meant to have a different TNI or DLF from one or more of the parents</li> <li>- The start and end dates of the report intersect the start and end dates of the parent and the child</li> <li>- The NMI status is A and D</li> </ul> <p>Changes for ICF032 Child NMI Standing Data Quality - TNI and DLF</p> <ul style="list-style-type: none"> <li>- Includes the Parent NMI and PARENT DLF so Embedded Network Managers (ENMs) know when a TNI or DLF (or both) of a Child NMI have changed</li> </ul>
Unchanged	Consistent with existing reports, there is no link to the data stream table
Data source	CATS
Existing header values	QueryId, Stat_Date, ParticipantId, RoleId, Source, Table, NMI, TNI, CODE, Start_Date, End_Date, Field, DLFVALUE
New header values	ParentNMI, ParentDLF
Status	Active



**Modified: Incorrect TNIs for child NMIs created in MSATS**

Field	Details
Query ID	TNIERR_CHILD
Long description	List of Child NMIs created in MSATS believed to have an incorrect TNI Code. Please investigate and correct the TNI Code.
Changed	<ul style="list-style-type: none"><li>- A child exclusion list, where a child NMI is meant to have a different TNI or DLF from one or more of the parents</li><li>- The start and end dates of the report intersect the start and end dates of the parent and the child</li><li>- The NMI status is A and D</li></ul> <b>Changes for ICF032 Child NMI Standing Data Quality - TNI and DLF</b> <ul style="list-style-type: none"><li>- Includes the Parent NMI and PARENT DLF so Embedded Network Managers (ENMs) know when a TNI or DLF (or both) of a Child NMI have changed</li></ul>
Unchanged	In keeping with the existing reports, there is no link to the data stream table
Data source	CATS
Existing header values	QueryId, Stat_Date, ParticipantId, RoleId, Source, Table, NMI, SDR_Key2, SDR_Key3, Start_Date, End_Date, Field, NMI_Class, TNI ,State
New header values	ParentNMI, ParentTNI
Status	Active

**New: SAPS NMI with embedded network code**

Field	Details
Query ID	SAPSENC
Role	ENM
Long description	Embedded Networks are not valid within a SAPS this NMI has an Embedded Network Code assigned and needs correcting
Data source	CATS

Field	Details
Header values	QueryId, Stat_Date, ParticipantId, RoleId, Source, Table, NMI_ID, EmbNetParent_Code, EmbNetChild_Code, Start_Date, End_Date, Field, TNI_Code, NMI_Class, NMI_Status, DLF_Code, Value5
Status	Active
Generation logic	<ul style="list-style-type: none"><li>- Identify NMIs with a TNI code linked to a SAPS Profile Area</li><li>- Report each NMI having an Embedded Network Parent or Child Code or both</li></ul>

#### New: MSRP (FRMP) assigned to non-SAPS TNI

Field	Details
Query ID	NONSAPSMSRP
Role	FRMP
Long description	A NMI attached to a non-SAPS TNI has an MSRP Participant ID assigned as the FRMP MSRPs are only eligible to be the FRMP for a SAPS NMI
Data source	CATS
Header values	QueryId, Stat_Date, ParticipantId, RoleId, Source, Table, NMI_ID, SDR_Key2, SDR_Key3, Start_Date, End_Date, Field, NMI_Class, Settle_Ind, TNI_Code, Role_Category, LNSP
Status	Active
Generation logic	<ul style="list-style-type: none"><li>- Identify NMIs with a TNI code linked to a NEM or ISO Profile Area</li><li>- Report each NMI having a FRMP assignment where the FRMP Role_category = MSRP</li></ul>

**New: SGA or MSRP (FRMP) assigned to GENERATR NMI**

Field	Details
Query ID	NOTELGEN
Role	FRMP
Long description	A NMI with a NMI Class Code of GENERATR has either an SGA or MSRP Participant ID assigned as the FRMP. SGAs and MSRPs are not eligible to be FRMPs for GENERATR NMIs
Data source	CATS
Header values	QueryId, Stat_Date, ParticipantId, RoleId, Source, Table, NMI_ID, SDR_Key2, SDR_Key3, Start_Date, End_Date, Field, NMI_Class, Settle_Ind, TNI_Code, Role_Category, LNSP
Status	Active
Generation logic	<ul style="list-style-type: none"> <li>- Identify NMIs having a FRMP assigned where the FRMP's Role_category = MSRP or SGA</li> <li>- Report each NMI where the NMI Class Code = GENERATR</li> </ul>

**New: SGA (FRMP) assigned to a SAPS NMI**

Field	Details
Query ID	SAPSSGA
Role	FRMP
Long description	A NMI attached to a SAPS TNI has an SGA Participant ID assigned as the FRMP. SGAs are not eligible to be a FRMP for a SAPS NMI
Data source	CATS
Header values	QueryId, Stat_Date, ParticipantId, RoleId, Source, Table, NMI_ID, SDR_Key2, SDR_Key3, Start_Date, End_Date, Field, NMI_Class, NMI_Status, TNI_Code, Role_Category, LNSP
Status	Active
Generation logic	<ul style="list-style-type: none"> <li>- Identify NMIs with a TNI code linked to a SAPS Profile Area</li> <li>- Report each NMI having a FRMP assignment where the FRMP Role_category = SGA</li> </ul>

**New: Non-SAPS DLF assigned to a SAPS NMI**

Field	Details
Query ID	NONSAPSDLF
Role	LNSP
Long description	The NMI is assigned a non-SAPS DLF Code connected to a TNI Code in a SAPS Area Correct the DLF Code to the SAPS DLF Code
Data source	CATS
Header values	QueryId, Stat_Date, ParticipantId, RoleId, Source, Table, NMI_ID, sdr_key_2, sdr_key_3, Start_Date, End_Date, Field, TNI_Code, NMI_Class, NMI_Status, DLF_Code, Value5
Status	Active
Generation logic	Identify NMIs with a TNI code linked to a SAPS Profile Area Report each NMI where the DLF code is NOT = SAPS

**New: SAPS DLF assigned to non-SAPS NMI**

Field	Details
Query ID	SAPSDLF
Role	LNSP
Long description	The NMI is assigned a DLF Code of SAPS connected to a TNI Code not in a SAPS Area Correct the DLF Code
Data source	CATS
Header values	QueryId, Stat_Date, ParticipantId, RoleId, Source, Table, NMI_ID, sdr_key_2, sdr_key_3, Start_Date, End_Date, Field, NMI_Class, Settle_Ind, DLF_Code, TNI_Code, Profile_Area
Status	Active
Generation logic	- Identify NMIs with a TNI code linked to a NEM or ISO Profile Area - Report each NMI where the DLF code = SAPS

**New: SAPS NMI with embedded network code**

Field	Details
Query ID	SAPSENP
Role	LNSP
Long description	Embedded Networks are not valid within a SAPS this NMI has an Embedded Network Code assigned and needs correcting.
Data source	CATS
Header values	QueryId,Stat_Date,ParticipantId,RoleId,Source,Table,NMI_ID,EmbNetParent,EmbNetChild,Start_Date,End_Date, Field, TNI_Code,NMI_Class,NMI_Status,DLF_Code, Value5
Status	Active
Generation logic	Identify NMIs with a TNI Code linked to a SAPS Profile Area Report each NMI having an Embedded Network parent or child code or both

**New: SAPS TNI without an active SAPS generation connection point**

Field	Details
Query ID	SAPSTNOGEN
Role	LNSP
Long description	There is no active SAPS Generation Connection Point assigned to the SAPS TNI supplying energy to the End User Connection Points
Data source	CATS
Header values	QueryId,Stat_Date,ParticipantId,RoleId,Source,Table,NMI_ID,sdr_key_2,sdr_key_3,Start_Date,End_Date, Field, TNI_Code,NMI_Class,NMI_Status,Value4, Value5
Status	Active
Generation logic	Identify a TNI Code linked to a SAPS Profile Area Report each TNI without an NREG NMI Classification Code assigned

New: SAPS TNI without an active SAPS End User Connection Point

Field	Details
Query ID	SAPSNONMI
Role	LNSP
Long description	There are no active SAPS End User Connection Points assigned to the SAPS TNI where an active SAPS Generator Connection Point exists
Data source	CATS
Header values	QueryId,Stat_Date,ParticipantId,RoleId,Source,Table,NMI_ID,sdr_key_2,sdr_key_3,Start_Date,End_Date, Field, TNI_Code,NMI_Class,NMI_Status,Value4, Value5
Status	Active
Generation logic	Identify the TNI Code linked to a SAPS Profile Area Report each TNI having only NMIs assigned with an NREG NMI Classification Code

5.8.9 RM51 Regulated SAPS Generation Reconciliation report

A new RM51 Regulated SAPS Generation Reconciliation report assists MSRPs (FRMPs) to reconcile their allocated energy within a settlement case.

RM51 report details

Purpose	Provides MSRP (FRMP) participants with the energy volume determined for contribution by the SAPS Generating Unit (Unit) for each individual Regulated SAPS
---------	--

Moved (insertion) [9]

<b><u>Content</u></b>	<p>Allocation of Energy values are only provided for approved settlement cases. The Energy values determined for each Unit consists of:</p> <ul style="list-style-type: none"> <li>- <b><u>TOTAL_LOAD</u></b>: The aggregate net Energy value or all SAPS End User NMIs for each Trading Interval When there is null Metering Data for all SAPS End User NMIs, the NMI is excluded from the TOTAL_LOAD calculation</li> <li>- <b><u>CONT_RATIO</u></b>: The proportion of Energy generated by a Unit contributing to TOTAL_LOAD for each Trading Interval Where multiple Units contribute to TOTAL_LOAD, the CONT_RATIO for each Unit is determined by the proportion of generated Energy contributed by each unit for each Trading Interval Where a single unit supports TOTAL_LOAD, the CONT_RATIO equals 1 for each Trading Interval Where a unit consumes Energy, the CONT_RATIO equals 0. Where null Metering Data is provided for a SAPS Generating Unit the CONT_RATIO is set to 0 for the Trading Intervals where there is no metering interval data Where null Metering Data is provided for all Units the CONT_RATIO is proportioned equally across each active Unit</li> <li>- <b><u>CALC_ALLOC</u></b>: The calculated Metering Data for a Unit for each Trading Interval is determined by multiplying the CONT_RATIO by the TOTAL_LOAD</li> </ul>
<b><u>Request</u></b>	<p>Anytime from:</p> <ol style="list-style-type: none"> <li>1. <u>MSATS web portal</u></li> <li>2. FTP</li> <li>3. API</li> </ol> <p><u>Subscribe to receive the report automatically after each approved Settlement Case by contacting AEMO's Support Hub</u></p>
<b><u>Delivery</u></b>	<u>Participant Outbox</u>
<b><u>Retention</u></b>	<u>13 months in FTP archive folder</u>
<b><u>Context type</u></b>	<u>MDMTSettlementCaseDetailsReportParameters</u>
<b><u>Priority</u></b>	<u>Medium</u>
<b><u>Role</u></b>	<u>FRMP</u>
<b><u>Format</u></b>	<u>Zipped aseXML compliant XML message with csv payload</u>
<b><u>Row limit</u></b>	<u>30,000</u>
<b><u>Schema version</u></b>	<u>r43</u>
<b><u>User rights access</u></b>	<u>Batch and Interactive: MDM Reports</u>

Input parameters

• RM51 - Regulated SAPS Generator Reconciliation - SAPSGeneratorReconciliation

Report - SAPSGeneratorReconciliation

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

Settlement Case ID (\*):

Profile Area:

TNI:

Select NMIs starting with:

Apply

NMI:

Save

Clear

Field	Description	Required	
		Web	Schema
Report name	MDMTSettlementCaseDetailsReportParameters	No	Yes
Settlement Case ID	To find a Case ID, see <b>Settlement Scenarios</b> in the <b>MSATS Web Portal</b>	Yes	Yes
Profile Area	The Profile Area TNI	Optional	Optional
TNI	The TNI Code	Optional	Optional
Select NMIs starting with	Use to enable a faster search by reducing the number of NMIs displayed	Optional	Optional
NMI	The National Metering Identifier	Optional	Optional

Output

Field	Description
Case ID	The Settlement Case ID
Settlement Type	Preliminary, Final, Revision 1, Revision 2, Special revised
Profile Area	The Profile Area code
TNI	The TNI Code



<u>Field</u>	<u>Description</u>
<u>NMI</u>	<u>The National Metering Identifier</u>
<u>Settlement Date</u>	<u>The Settlement Date</u>
<u>Creation Date</u>	<u>The Creation Date</u>
<u>Null Data</u>	<u>Indicates if the calculated value includes null Metering Data</u>
<u>Data Type</u>	<u>Total Load, Cont Ratio, Calc Alloc</u>
<u>Period 001 to Period 288</u>	<u>Data for Period 1 through to Period 288</u>
<u>Report sequence number</u>	<u>Required when the report exceeds the row limit</u> <u>For details, see <b>Report Sequencing</b> (required MarketNet access)</u>

RM51 example

This is an early draft of the RM51 report. The design may change by the **Release Dates**.

```
0"
:ase="urn:aseXML:r43"
:xsi="http://www.w3.org/2001/XMLSchema-instance"
chemaLocation="urn:aseXML:r43 http://www.nemmco.com.au/aseXML/schemas/r43/aseXML_r43.xsd">

cription="NEMMCO">NEMMCO</From>
iption="NEMMCO">NEMMCO</To>
D>NEMMCO-MSG-1234</MessageID>
ate>2001-11-14T18:45:27+00:00</MessageDate>
ionGroup>MDMT</TransactionGroup>
>Medium</Priority>
Context>NEMMCOBATCH</SecurityContext>

>
ion transactionID="MDMT-1234" transactionDate="2001-11-14T18:45:27+00:00" initiatingTransactionID="187">
rtResponse version="r43">
ReportParameters xsi:type="ase:MDMTSettlementCaseDetailsReportParameters">
  <ReportName>SAPSGeneratorReconciliation</ReportName>
  <MaximumRows>100</MaximumRows>
  <SettlementCase>9876</SettlementCase>
  <ProfileArea>COUNTRYENGYSAPS</ProfileArea>
  <TransmissionNodeIdentifier>E123</TransmissionNodeIdentifier>
  <NMI>8010009102</NMI>
</ReportParameters>
ReportResults xsi:type="ase:CSVReportFormat">

Type,ProfileArea,TNI,NMI,SettlementDate,CreationDT,Null_Data,DataType,Period001,Period002,Period003,Period004
YENGYSAPS,E123,8010009102,2023/06/01,2023/06/01T20:02:02,N,TOTAL_LOAD,0.3,0.3,0.5,0.3,0.3,0.3,-0.3,0,0,0.2,0
YENGYSAPS,E123,8010009102,2023/06/01,2023/06/01T20:02:02,N,CONT_RATIO,0.5714,0.5714,0.9091,0.5714,0.3333,0.3
YENGYSAPS,E123,8010009102,2023/06/01,2023/06/01T20:02:02,N,CALC_ALLOC,-0.171,-0.171,-0.455,-0.171,-0.1,-0.1,0
</CSVData>
</ReportResults>
Event severity="Information">
  <Code>0</Code>
  <Explanation>Success.</Explanation>
</Event>
ortResponse>
tion>
s>
```

Report delivery

Participants can request reports using the following interfaces:

- FTP to their Participant Inbox directory.
- API > B2MMessagingSync > generateC1Report
- MSATS Web Portal > Reports and Alerts > CATS.

For details about MSATS reports, see **Reports and Alerts**. Requires access to MarketNet.

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5.9 CATS reports

5.9.1 C1 data replication resynchronisation report

The C1 report is extended to increase the transparency of published industry configuration data used by MSATS. In particular, how MSATS is configured and the precise syntax used for specific configuration items. These changes are also incorporated in the r43 schema.

For an example, see [Updated C1 report example](#).

Report - Data Replication Resynchronisation Report (C1)

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

Start Date (\*): 9-Feb-2023  
Time From (hh:mm:ss): 00:00:00  
End Date (\*): 15-Feb-2023  
Time To (hh:mm:ss): 23:59:59

Tables (\*):  
Report Last Sequence Number (\*):  
Maximum Rows:  

Save Clear

MSDR\_MAP\_METERMODEL [08-FEB-2023] (FULL Repl. Allowed)  
MSDR\_MAP\_TIMEOFDAY [08-FEB-2023] (FULL Repl. Allowed)  
NH\_PA [14-FEB-2023] (FULL Repl. Allowed)  
NH\_TN1 [14-FEB-2023] (FULL Repl. Allowed)  
NODE\_HIERARCHY [FULL Repl. Allowed)  
RATEDMETERING [08-FEB-2023] (FULL Repl. Allowed)  
REGIDSTATUS [08-FEB-2023] (FULL Repl. Allowed)  
ROLESSTATUS [08-FEB-2023] (FULL Repl. Allowed)  
SHARED\_ISOLATION\_POINT\_FLAG [08-FEB-2023] (FULL Repl. Allowed)  
STATECODE [08-FEB-2023] (FULL Repl. Allowed)  
STREAMSTATUSCOD [08-FEB-2023] (FULL Repl. Allowed)  
STREET\_SUFFIX [08-FEB-2023] (FULL Repl. Allowed)  
STREETTYPE [08-FEB-2023] (FULL Repl. Allowed)  
TEST\_RESULT [08-FEB-2023] (FULL Repl. Allowed)  
TIME\_OF\_DAY [08-FEB-2023] (FULL Repl. Allowed)  
UNITOFMEASURE [08-FEB-2023] (FULL Repl. Allowed)  
VT\_ACCURACY\_CLASS [08-FEB-2023] (FULL Repl. Allowed)  
VT\_RATIO [08-FEB-2023] (FULL Repl. Allowed)  
VT\_TEST [08-FEB-2023] (FULL Repl. Allowed)  
VT\_TYPE [08-FEB-2023] (FULL Repl. Allowed)

Deleted: CATS reports

Moved up [8]: <#>MSATS generic field names¶  
AEMO uses the CND\_[nn] framework. Where possible, participants should use the Procedural field names defined in the **Standing Data for MSATS**. AEMO does not support participants using the Oracle database table and field names. For participants using the C1 CATS Transaction Field Validations report these are the new MSATS field name mappings. ¶  
Procedural field

The C1 report has the following extra information:

- Enumerations lists used for Change Request processing.
- SAPS Role Category assignment from the CATS\_PARTICIPANT\_ROLES table.
- New replication tables are added to the CATSTableReplication\_r43.xsd, supporting the new data published in the C1 report, for the following MSATS Codes tables:

MSATS codes table	Replication table
MSATS_CODE_COMBOS	MSATSCodeCombosRow
MSATS_CODE_GROUPS	MSATSCodeGroupsRow
MSATS_CODES	MSATSCodesRow
MSATS_CODES_DATED	MSATSCodesDatedRow

- Data elements from the following MDM tables:
  - NODE
  - NODE\_HIERARCHY

CATS\_PARTICIPANT\_ROLES response

A C1 report response for the CATS\_PARTICIPANT\_ROLES table includes the following elements and values:

aseXML tag	Source column	Status
CreationDate	MAINTCREATEDT	Existing
FromDate	EFF_STARTDT	Existing
MaintenanceDate	MAINTUPDTDT	Existing
ParticipantID	CATS_PARTICIPANT_ROLES	Existing
Role	CATS_PARTICIPANT_ROLES	Existing
RoleCategory	CATS_PARTICIPANT_ROLES	New
RowStatus	MAINTACTFLG	Existing
SequenceNumber	ID_MCG	Existing
ToDate	EFF_ENDDT	Existing

Last changed date

The Reports and Alerts > CATS > C1 - Data Replication Resynchronisation Report interface displays the title of each C1 reporting group with the Last Changed Date in the Tables drop-down.

<screenshot>

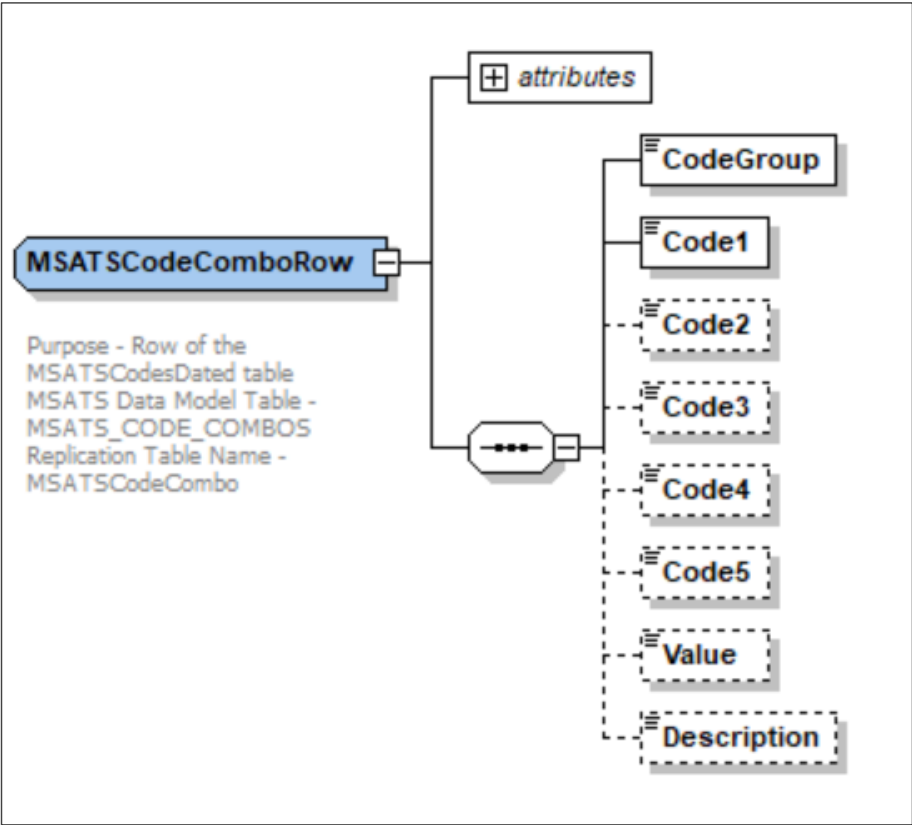
**Moved up [4]:** Where a HouseNumberToSuffix value exists, participants can obtain it through a CATS C1 report request, if they have:  
A relationship to the NMI according to the Standing Data Access Rules.  
A B2M CATS schema preference set to aseXML.r43 or later.  
The report response value displays in the following aseXML element:

**Table name**

**Deleted: HouseNumberToSuffix request**

**Deleted: Last consumer change date**  
In compliance with the Standing Data Access Rules, where a Last Consumer Change Date exists, only FRMPs can receive it in a C1 report.

MSATS\_CODE\_COMBOS



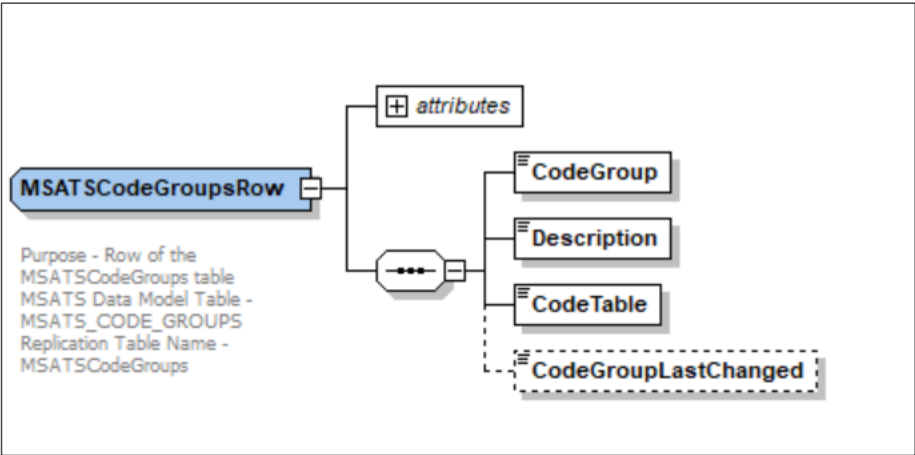
MSATS\_CODE\_COMBOS response

A C1 report response for the MSATS\_CODE\_COMBOS report group includes the following elements and values:

aseXML Tag	Source column	aseXML Tag	Source column
Code1	CODE1	Code4	CODE4
Code2	CODE2	Code5	CODE5
Code3	CODE3	CodeGroup	CODEGROUP

aseXML Tag	Source column	aseXML Tag	Source column
CreationDate	MAINTCREATEDT	RowStatus	MAINTACTFLG
Description	CODEDESC	SequenceNumber	ID_MCC
FromDate	STARTDATE	ToDate	ENDDATE
MaintenanceDate	MAINTUPDTDT	Value	VALUE

MSATS\_CODE\_GROUPS



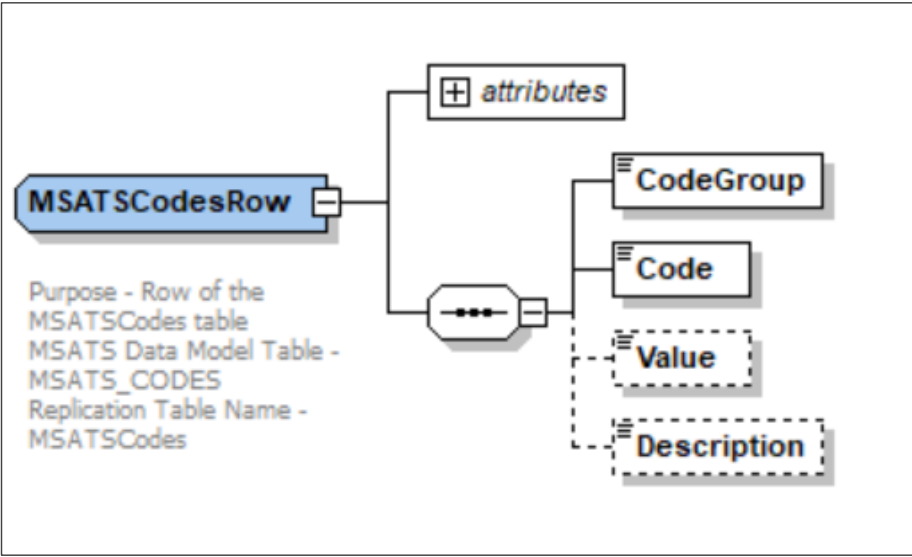
MSATS\_CODE\_GROUPS response

A C1 report response for the MSATS\_CODE\_GROUPS table includes the following elements and values:

CodeGroup	CODEGROUP	Existing
CodeGroupLastChanged	LAST_CHANGED_DATE	New
CodeTable	CODETABLE	New

CodeGroup	CODEGROUP	Existing
CreationDate	MAINTCREATEDT	Existing
Description	CODEGROUPDESC	Existing
MaintenanceDate	MAINTUPDTDT	Existing
RowStatus	MAINTACTFLG	Existing
SequenceNumber	ID_MCG	Existing

MSATS\_CODES



MSATS\_CODES request

Authorised participants can request a C1 report with the following MSATS\_CODES:

Code Group	Code Group
B2B_ROLES	MSDR_MAP_CONTROLLEDLOAD

Code Group

MSDR\_MAP\_METERMANUFACTURER

MSDR\_MAP\_METERMODEL

MSDR\_MAP\_TIMEOFDAY

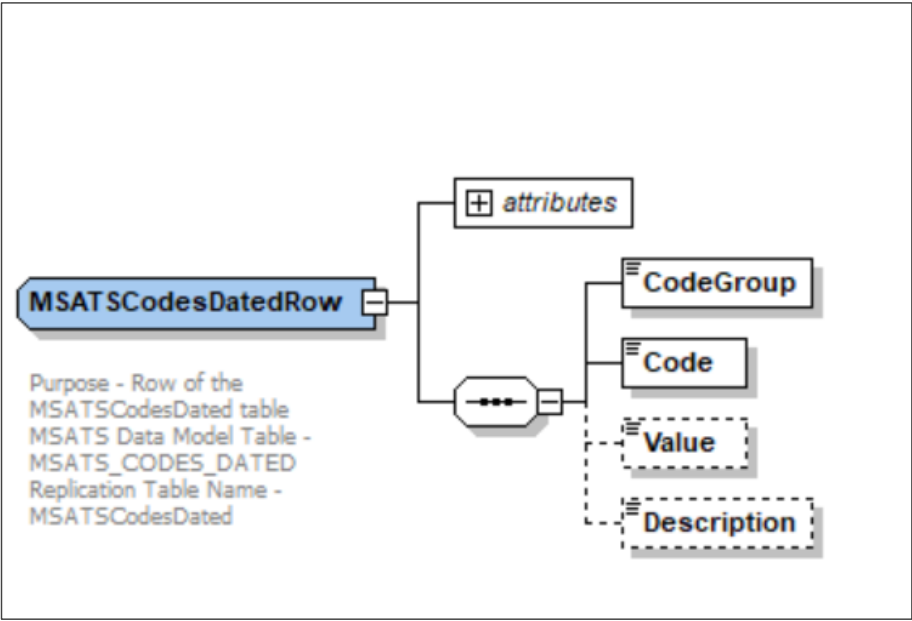
MSATS\_CODES response

A C1 report response for the MSATS\_CODES report group includes the following elements and values:

aseXML tag	Source column	aseXML tag	Source column
Code	CODE	RowStatus	MAINTACTFLG
CodeGroup	CODEGROUP	SequenceNumber	ID_MC
CreationDate	MAINTCREATEDT	Value	VALUE
Description	CODEDESC		
MaintenanceDate	MAINTUPDTDT		



MSATS\_CODES\_DATED



MSATS\_CODES\_DATED request

Authorised participants can request a C1 report with the following MSATS\_CODES\_DATED:

Code Group	Code Group
CONTROLLED_LOAD	FEEDER_CLASS
CT_ACCURACY_CLASS	METER_MANUFACTURER
CT_RATIO_AVAILABLE	METER_MODEL
CT_RATIO_CONNECTED	METER_USE
CT_TEST	SHARED_ISOLATION_POINT_FLAG
CT_TYPE	TEST_RESULT
DCTC_INTERVAL	TIME_OF_DAY

Code Group
VT_ACCURACY_CLASS
VT_RATIO
VT_TEST

Code Group
VT_TYPE

MSATS\_CODES\_DATED response

A C1 report response for the MSATS\_CODES\_DATED report group includes the following elements and values:

aseXML tag	Source column	aseXML tag	Source column
Code	CODE	RowStatus	MAINTACTFLG
CodeGroup	CODEGROUP	SequenceNumber	ID_CD
CreationDate	MAINTCREATEDT	ToDate	ENDDATE
Description	CODEDESC	Value	VALUE
FromDate	STARTDATE		
MaintenanceDate	MAINTUPDTDT		

MSATS\_CODE\_VALUES request

Authorised participants can request a C1 report with the following MSATS\_CODES\_VALUES:

Code Group	Code Group	Code Group
ACTCUMIND	BOOLEAN	FLATTYPE
ACTIVITYCODE	CONTACTTYPE	FLOORLEVELTYPE
AGGREGATEFLAG	DATAFIELDPCODE	METERSTATUS
ATTRIBUTE	DATASTREAMTYPE	ObjectionAction

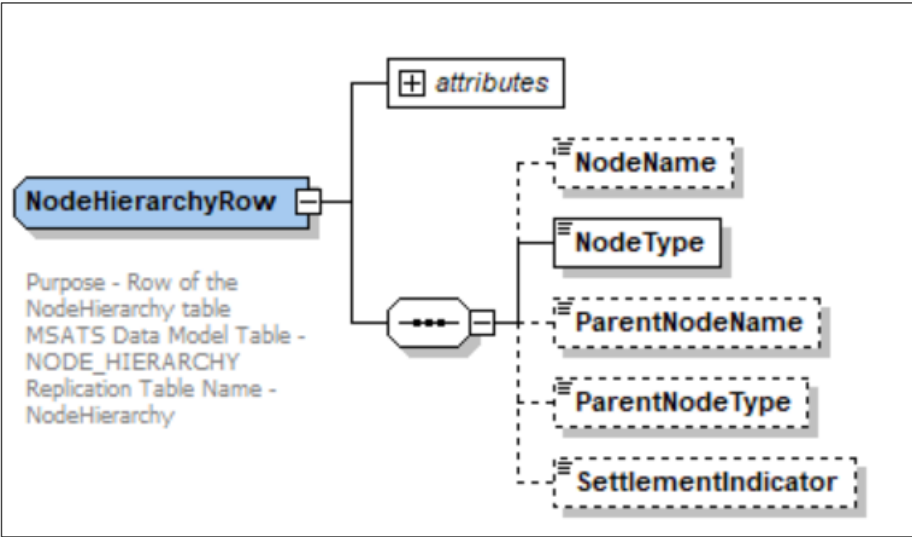
Code Group	Code Group	Code Group
REGIDSTATUS	STREAMSTATUSCOD	UNITOFMEASURE
ROLESTATUS	STREETSUUFFIX	
STATECODE	STREETTYPE	

C1 code group replication blocks

When requesting a code group dataset, depending on the codes table data structure, the following new aseXML elements are used in C1 ReplicationBlocks:

Name	Description	MSATS_CODE_GROUPS	MSATS_CODE	MSATS_CODES_DATED	MSATS_CODE_COMBOS
CodeGroupLastChanged	Date time any value in the code-group was last updated	✓	n/a	n/a	n/a
CodeGroup	Code-group name	✓	✓	✓	✓
CodeTable	Defines for an MSATS_CODE_GROUPS row which table type holds the code values	✓	n/a	n/a	n/a
CodeGroupDesc	Code group function description	✓	n/a	n/a	n/a
Value	Code value stored in the code tables	n/a	✓	✓	✓
CodeDesc	Code value function description	n/a	✓	✓	✓
Code1	Defines a single code value for code groups requiring multiple variables	n/a	n/a	n/a	✓
Code2		n/a	n/a	n/a	✓
Code3		n/a	n/a	n/a	✓
Code4		n/a	n/a	n/a	✓
Code5		n/a	n/a	n/a	✓

Node\_Hierarchy



NODE\_HIERARCHY request

Authorised participants can request a C1 report with the following NODE\_HIERARCHY:

Code Group	Code Group
NH_PA	NH_TNI

NODE\_HIERARCHY response

A C1 report response for the NODE\_HIERARCHY report group includes the following elements and values:

aseXML Tag	Source column	aseXML Tag	Source column
CreationDate	TRANS_STARTTS	NodeType	Node.NODETYPE
FromDate	EFF_STARTDT	ParentNodeName	Node.NAME
MaintenanceDate	31-Dec-9999	ParentNodeType	Node.NODETYPE
NodeName	Node.NAME	RowStatus	MAINTACTFLG

aseXML Tag	Source column
SequenceNumber	ID_NH
SettlementIndicator	SETTLEMENT_INDICATOR
ToDate	EFF_ENDDT

NodeHierarchyRow ReplicationBlock

For use in the NodeHierarchyRow ReplicationBlock.

Name	Description
NodeName	node_name value
NodeType	node_type value of the NODE table. This value corresponds to the configurable NodeHierarchyRow dataset specified in the TableName of the ReplicationParameters. For example where TableName is NH_PA then Node-Type is PA
SettlementIndicator	settlement_indicator value of the NODE_HIERARCHY table
ParentNodeName	parent_node_name value of the NODE table
ParentNodeType	parent_node_name value of the NODE table

Moved up [5]: <#>C4 NMI master report¶

Moved up [6]: <#>Where a HouseNumberToSuffix value exists, participants can obtain it through a CATS C4 report request, with report name: Master and report type: Detailed, if they have:¶  
A relationship to the NMI according to the Standing Data Access Rules.¶  
A B2M CATS schema preference set to aseXML.r43 or later.¶  
The report response value displays in the following aseXML element:¶  
Table name

Moved up [7]: C7 new participant access report¶  
Where a HouseNumberToSuffix value exists, participants can obtain it through a CATS C7 report request, if they have:¶  
A nomination for a role for the NMI in a CR1000 or CR6000 series Change Request in Requested(REQ), Pending (PEND), or Objected (OBJ) status.¶  
A relationship to the NMI according to the Standing Data Access Rules.¶  
A B2M CATS schema preference set to aseXML.r43 or later.¶  
The report response value displays in the following aseXML element:¶  
Parent element

Moved up [9]: RM51 Regulated SAPS Generation Reconciliation report¶  
A new RM51 Regulated SAPS Generation Reconciliation report assists MSRPs (FRMPs) to reconcile their allocated energy within a settlement case.¶  
RM51 report details¶  
Purpose

Deleted: <#>HouseNumberToSuffix¶

Deleted: Last consumer change date¶  
In compliance with the Standing Data Access Rules, where a Last Consumer Change Date exists, only FRMPs can receive it in a C4 report.¶

Deleted: Last consumer change date¶  
In compliance with the Standing Data Access Rules, where a Last Consumer Change Date exists, only FRMPs can receive it in a Snapshot report.¶  
MDM reports¶

Deleted: FAQs¶  
In progress¶

## 6 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.

### 6.1 Key considerations

- See [Participant Impact](#).

### 6.2 Upgrade options

#### 6.2.1 Option 1

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

#### 6.2.2 Option 2

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

### 6.3 Risks

- Participants will not receive the new B2M and B2B aseXML schema fields if they do not upgrade to r43.

## 7 Terms

You can find the following terms defined in the [National Electricity Rules \(NER\)](#) or [Retail Electricity Market Glossary and Framework](#)

### 7.1 Rules and procedure terms

Term	Term
Accept	Change Reason Code
Actual Change Date	Change Request (CR)
AEMO	Change Request Status Notification Rules
aseXML Schema	Child NMI
Australian Eastern Standard Time (AEST) also Market Time	Completed (COM)
B2B	Connection Point
B2B Notification	CT
B2B Transaction	Current
Business Day	Datastream
C4 Report	Distribution Network
Cancelled (CAN)	Distribution Network Service Provider (DNSP)
Category B Metering Provider (MPB)	DLF Code
Category C Metering Data Provider (MPC)	<a href="#">Demand Response Service Provider (DRSP)</a>
CATS	Embedded Network
CATS Procedures	Embedded Network Local Retailer (ENLR)
CATS Standing Data	Embedded Network Manager (ENM)
	End User

## Terms

Term	Term
Energy	MSATS
Field Validation Rules	MSATS Procedures
Financially Responsible Market Participant (FRMP)	National Market Operator (NEMM)
Generating Unit	NEM
Initiator	NER
Jurisdiction	Network Tariff
Jurisdiction Code	Network Tariff Code (NTC)
Local Network Service Provider (LNSP)	Next Scheduled Reading Date (NSRD)
Local Retailer (LR)	NMI
Local Retailer for a child connection point. Must be the FRMP of the Parent NMI (ENLR)	NMI Checksum
Market	NMI Classification Code
Market Participant	NMI Datastream
Market SAPs Resource Provider (MSRP)	NMI Discovery Search 2 (NMID2)
MDM	NMI Discovery Search 3 (NMID3)
Meter	NMI Standing Data (subset of CATS Standing Data)
Metering Coordinator (MC)	NMI Status Code
Metering Coordinator Planned Interruptions (MCPI)	Objected (OBJ)
Metering Data	Objection
Metering Data Provider (MDP)	Objection Rules
Metering Provider (MP)	OneWayNotification
Metrology Procedure: Part A and Part B	Partially Completed



## Terms

Term	Term
Participant	Role Category
Participant Administrator (PA)	SAPS Resource Provider (MSRP)
Participant ID	Second Network Service Provider (NSP2)
Participant User	Service Level Procedure
Pending (PEND)	Shared Fuse Arrangement
Profile Area	Site
Proposed Change Date	Small Generator Aggregator (SGA)
Prospective Change	Standing Data Access Rules (CATS & NMI)
Recipient	Start Date
Registered Participant	Structured address
Registration Category	Timeframe Rules
Regulated SAPS	TNI Code
Rejected (REJ)	Trading Interval
Requested (REQ)	Transaction
Responsible Person (RP)	Validation
Retailer	VT
Retailer of Last Resort (RoLR)	WIGS
Retrospective Change	WIGS Procedures
Role	

7.2 Glossary

Abbreviation/Term	Explanation
Payload	A csv or text file
Release	MSATS 49.0 Technical Specification – May 2023
Release Dates	Pre-production: Tuesday 2 May 2023 Production: Monday 29 May 2023
Role Category	A new element introduced by SAPS to record the category of a FRMP
TBC	To be confirmed

Deleted: ¶  
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## 8 References

**API Reference:** provides details about using AEMO's e-Hub as an interface to communicate information with AEMO. It assists wholesale electricity and gas participants developing their own APIs.

**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 participants' 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.

**Guidelines for Development of A Standard for Energy Transactions in XML (aseXML):** Provides guidance to users and developers of the aseXML schema.

**MSATS Procedures:** Current and previous electricity retail 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.

**Access to the [Markets Portal Help](#) requires a MarketNet connection. Please speak with your company's Participant Administrator if you require access.**

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## A1. aseXML r43 Draft Files and Changes

### Draft schema files

- [aseXML\\_r43](#)
- [aseXML\\_r43 samples](#)

### aseXml\_r43.xsd

```
<xsd:schema xmlns="urn:aseXML: " xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
targetNamespace="urn:aseXML: " version=" " xsi:schemaLocation="urn:aseXML: "
">
<xsd:include schemaLocation="CATSTableReplication_ .xsd">
<xsd:include schemaLocation="Common_ .xsd">
<xsd:include schemaLocation="Electricity_ .xsd">
<xsd:include schemaLocation="ElectricityMasterStandingData_ .xsd"/>
<xsd:include schemaLocation="Events_ .xsd">
<xsd:include schemaLocation="MDMTReports_ .xsd">
<xsd:include schemaLocation="OneWayNotification_ .xsd">
<xsd:include schemaLocation="Transactions_ .xsd">
```

## CATSTableReplication\_r43.xsd

```

<!-- MSATS_CODE_GROUPS Row -->
  <xsd:complexType name="MSATSCodeGroupsRow">
    <xsd:annotation>
      <xsd:documentation>
        Purpose - Row of the MSATSCodeGroups table
        MSATS Data Model Table - MSATS_CODE_GROUPS
        Replication Table Name - MSATSCodeGroups
      </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
      <xsd:extension base="ReplicationBaseRow">
        <xsd:sequence>
          <xsd:element name="CodeGroup" type="MSATSCodeGroup"/>
          <xsd:element name="Description" type="MSATSCodeValueDescription"/>
          <xsd:element name="CodeTable" type="MSATSCodeTableType"/>
          <xsd:element name="CodeGroupLastChanged" type="xsd:dateTime" minOccurs="0"/>
        </xsd:sequence>
        <xsd:attribute name="version" type="r43" use="optional" default="r43"/>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
<!-- MSATS_CODES_DATED Row -->
  <xsd:complexType name="MSATSCodesDatedRow">
    <xsd:annotation>
      <xsd:documentation>
        Purpose - Row of the MSATSCodesDated table
        MSATS Data Model Table - MSATS_CODES_DATED
        Replication Table Name - MSATSCodesDated
      </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
      <xsd:extension base="ReplicationDateRangeRow">
        <xsd:sequence>
          <xsd:element name="CodeGroup" type="MSATSCodeGroup"/>
          <xsd:element name="Code" type="MSATSCode"/>
          <xsd:element name="Value" type="MSATSCodeValue" minOccurs="0"/>
          <xsd:element name="Description" type="MSATSCodeValueDescription" minOccurs="0"/>
        </xsd:sequence>
        <xsd:attribute name="version" type="r43" use="optional" default="r43"/>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>

```



```

        </xsd:complexContent>
    </xsd:complexType>
    <!-- MSATS_CODE_COMBOS Row -->
    <xsd:complexType name="[REDACTED]">
        <xsd:annotation>
            <xsd:documentation>
                Purpose - Row of the MSATSCodesDated table
                MSATS Data Model Table - MSATS_CODE_COMBOS
                Replication Table Name - MSATSCodeCombo
            </xsd:documentation>
        </xsd:annotation>
        <xsd:complexContent>
            <xsd:extension base="ReplicationDateRangeRow">
                <xsd:sequence>
                    <xsd:element name="[REDACTED]" type="MSATSCodeGroup"/>
                    <xsd:element name="[REDACTED]" type="MSATSCode"/>
                    <xsd:element name="Code2" type="MSATSCode"
nillable="true" minOccurs="0"/>
                    <xsd:element name="Code3" type="MSATSCode"
nillable="true" minOccurs="0"/>
                    <xsd:element name="Code4" type="MSATSCode"
nillable="true" minOccurs="0"/>
                    <xsd:element name="Code5" type="MSATSCode"
nillable="true" minOccurs="0"/>
                    <xsd:element name="[REDACTED]" type="MSATSCodeValue"
minOccurs="0"/>
                    <xsd:element name="[REDACTED]"
type="MSATSCodeValueDescription" minOccurs="0"/>
                </xsd:sequence>
                <xsd:attribute name="version" type="[REDACTED]" use="optional"
default="r43"/>
            </xsd:extension>
        </xsd:complexContent>
    </xsd:complexType>
    <!-- MSATS_CODES Row -->
    <xsd:complexType name="MSATSCodesRow">
        <xsd:annotation>
            <xsd:documentation>
                Purpose - Row of the MSATSCodes table
                MSATS Data Model Table - MSATS_CODES
                Replication Table Name - MSATSCodes
            </xsd:documentation>
        </xsd:annotation>
        <xsd:complexContent>
            <xsd:extension base="ReplicationBaseRow">
                <xsd:sequence>
                    <xsd:element name="CodeGroup" type="MSATSCodeGroup"/>
                    <xsd:element name="Code" type="MSATSCode"/>

```

```

                <xsd:element name="Value" type="MSATSCodeValue"
minOccurs="0"/>
                <xsd:element name="Description"
type="MSATSCodeValueDescription" minOccurs="0"/>
            </xsd:sequence>
            <xsd:attribute name="version" type="r43" use="optional"
default="r43"/>
        </xsd:extension>
    </xsd:complexType>
<!-- NODE_HIERARCHY Row -->
<xsd:complexType name="NodeHierarchyRow">
    <xsd:annotation>
        <xsd:documentation>
Purpose - Row of the NodeHierarchy table
MSATS Data Model Table - NODE_HIERARCHY
Replication Table Name - NodeHierarchy
        </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
        <xsd:extension base="ReplicationDateRangeRow">
            <xsd:sequence>
                <xsd:element name="NodeName" type="xsd:string"
nillable="true" minOccurs="0"/>
                <xsd:element name="NodeType" type="xsd:string"/>
                <xsd:element name="ParentNodeName" type="xsd:string"
minOccurs="0"/>
                <xsd:element name="ParentNodeType" type="xsd:string"
minOccurs="0"/>
                <xsd:element name="SettlementIndicator"
type="xsd:string" minOccurs="0"/>
            </xsd:sequence>
            <xsd:attribute name="version" type="r43" use="optional"
default="r43"/>
        </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
<xsd:simpleType name="CodeGroup">
    <xsd:annotation>
        <xsd:documentation>
MSATS Data Model Column - CodeGroup
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string">
        <xsd:maxLength value="50"/>
        <xsd:minLength value="1"/>
        <xsd:whiteSpace value="collapse"/>
    </xsd:restriction>
</xsd:simpleType>

```

```

        <xsd:annotation>
            <xsd:documentation>
MSATS Data Model Column - MSATSCode
            </xsd:documentation>
        </xsd:annotation>
        <xsd:restriction base="xsd:string">
            <xsd:maxLength value="50"/>
            <xsd:minLength value="1"/>
            <xsd:whiteSpace value="collapse"/>
        </xsd:restriction>
    </xsd:simpleType>
</xsd:simpleType>
<xsd:simpleType name="MSATSCodeValue">
    <xsd:annotation>
        <xsd:documentation>
MSATS Data Model Column - CodeTable
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string">
        <xsd:maxLength value="15"/>
        <xsd:minLength value="1"/>
        <xsd:whiteSpace value="collapse"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="MSATSCodeValue">
    <xsd:annotation>
        <xsd:documentation>
MSATS Data Model Column - CodeValue
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string">
        <xsd:maxLength value="15"/>
        <xsd:minLength value="1"/>
        <xsd:whiteSpace value="collapse"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="ParticipantRolesRow">
    <xsd:annotation>
        <xsd:documentation>
Purpose - Row of the Participant Roles table
MSATS Data Model Table - CATS_Participant_Roles
Replication Table Name - ParticipantRoles
        </xsd:documentation>
    </xsd:annotation>
    <xsd:complexContent>
        <xsd:extension base="ParticipantRolesRow" type="PartyIdentifier"/>
        <xsd:sequence>
            <xsd:element name="ParticipantID"
type="PartyIdentifier"/>

```

```

        <xsd:element name="Role" type="RoleIdentifier"/>
        <xsd:element name=" " type=" " />
    minOccurs="0"/>
    </xsd:sequence>
    </xsd:extension>
    </xsd:complexContent>
</xsd:complexType>
<!-- Electricity NMI Standing Data Replication Row Types -->
    <xsd:complexType name="ElectricityNMIMasterRow">
        <xsd:annotation>
            <xsd:documentation>
                Purpose - Row of the Electricity NMI Master Standing Data table
                MSATS Data Model Table - CATS_NMI_Data
                Replication Table Name - ElectricityNMIMaster
            </xsd:documentation>
        </xsd:annotation>
        <xsd:complexContent>
            <xsd:extension base="ReplicationDateRangeRow">
                <xsd:sequence>
                    <xsd:element name="NMI" type="NMIBase"/>
                    <xsd:group ref="ElectricityNMIMasterGroup"/>
                </xsd:sequence>
                <xsd:attribute name="version" type="r43" use="optional"
                    default="r43"/>
            </xsd:extension>
        </xsd:complexContent>
    </xsd:complexType>
<!-- BDT Row Types -->
    <xsd:complexType name="ElectricityNMIMasterRowBDT">
        <xsd:annotation>
            <xsd:documentation>
                Purpose - Row of the Electricity NMI Master Standing Data table extended by
                BDTStatus and Event for Bulk Data Tool
                MSATS Data Model Table - CATS_NMI_Data
                Replication Table Name - ElectricityNMIMaster
            </xsd:documentation>
        </xsd:annotation>
        <xsd:complexContent>
            <xsd:extension base="ReplicationDateRangeRow">
                <xsd:sequence>
                    <xsd:group ref="ElectricityNMIMasterGroup"/>
                    <xsd:element name="BDTStatus" type="BDTStatus"
                        minOccurs="0"/>
                    <xsd:element name="Event" type="Event" minOccurs="0"
                        maxOccurs="unbounded"/>
                </xsd:sequence>
                <xsd:attribute name="version" type="r43" use="optional"
                    default="r43"/>
            </xsd:extension>
        </xsd:complexContent>
    </xsd:complexType>

```

```

        </xsd:complexContent>
    </xsd:complexType>
    <xsd:complexType name="ElectricityCATSChangeRequestNMIMasterRow">
        <xsd:annotation>
            <xsd:documentation>
                Purpose - Row of the Electricity CATS Change Request NMI Master Standing Data
                table
                MSATS Data Model Table - CATS_Inbound_NMI_Data
                Replication Table Name - ElectricityCATSChangeRequestNMIMaster
            </xsd:documentation>
        </xsd:annotation>
        <xsd:complexContent>
            <xsd:extension base="ReplicationBaseRow">
                <xsd:sequence>
                    <xsd:element name="RequestID"
type="CATSRequestIdentifier"/>
                    <xsd:group ref="ElectricityNMIMasterGroup"/>
                </xsd:sequence>
                <xsd:attribute name="version" type="r43" use="optional"
default="r43"/>
            </xsd:extension>
        </xsd:complexContent>
    </xsd:complexType>

```

## Common\_r43.xsd

```

<xsd:simpleType name="RoleCategory">
    <xsd:annotation>
        <xsd:documentation>
            Purpose - Identify the role category.
            MSATS Data Model Column - Role_Category
        </xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="xsd:string">
        <xsd:maxLength value="15"/>
    </xsd:restriction>
</xsd:simpleType>

```

## Electricity\_43.xsd

```

<xsd:complexType name="ElectricityMasterStandingData">
  <xsd:annotation>
    <xsd:documentation>
      Purpose - Standing data associated with an electricity NMI.
      Detail - The structure supports multiple data streams, meters and role
      assignments. Note that because this type is derived from the NMISTandingData type,
      it begins with the elements defined for that type, notably the NMI.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="NMISTandingData">
      <xsd:sequence>
        <xsd:element name="MasterData"
          type="ElectricityMasterStandingData" minOccurs="0"/>
        <xsd:element name="RoleAssignments"
          type="RoleAssignments" minOccurs="0"/>
        <xsd:element name="DataStreams"
          type="ElectricityDataStreams" minOccurs="0"/>
        <xsd:element name="MeterRegister"
          type="ElectricityMeters" minOccurs="0"/>
      </xsd:sequence>
      <xsd:attribute name="version" type="string" use="optional"
        default="1.0"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

```

## ElectricityMasterStandingData\_r43.xsd

```

<xsd:group name="ElectricityMasterStandingData" >
  <xsd:annotation>
    <xsd:documentation>
      Purpose - Common NMI Master elements across Standing Data and Change Requests
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element name="JurisdictionCode" type="JurisdictionCode"
      nillable="true" minOccurs="0"/>
    <xsd:element name="NMIClassificationCode"
      type="NMIClassificationCode" nillable="true" minOccurs="0"/>
    <xsd:element name="TransmissionNodeIdentifier"
      type="TransmissionNodeIdentifier" nillable="true" minOccurs="0"/>
    <xsd:element name="DistributionLossFactorCode"
      type="DistributionLossFactorCode" nillable="true" minOccurs="0"/>
    <xsd:element name="ParentEmbeddedNetworkIdentifier"
      type="EmbeddedNetworkIdentifier" nillable="true" minOccurs="0"/>
    <xsd:element name="ChildEmbeddedNetworkIdentifier"
      type="EmbeddedNetworkIdentifier" nillable="true" minOccurs="0"/>
    <xsd:element name="Address" type="AustralianPartialAddress"
      nillable="true" minOccurs="0"/>
    <xsd:element name="Aggregate" type="YesNo" nillable="true"
      minOccurs="0"/>
    <xsd:element name="Status" type="NMIStatusCode" nillable="true"
      minOccurs="0"/>
    <xsd:element name="FlatOrUnitType"
      type="AustralianFlatOrUnitType" nillable="true" minOccurs="0"/>
    <xsd:element name="FlatOrUnitNumber"
      type="AustralianFlatOrUnitNumber" nillable="true" minOccurs="0"/>
    <xsd:element name="FloorOrLevelType"
      type="AustralianFloorOrLevelType" nillable="true" minOccurs="0"/>
    <xsd:element name="FloorOrLevelNumber"
      type="AustralianFloorOrLevelNumber" nillable="true" minOccurs="0"/>
    <xsd:element name="BuildingOrPropertyName"
      type="AustralianBuildingOrPropertyName" nillable="true" minOccurs="0"/>
    <xsd:element name="BuildingOrPropertyName2"
      type="AustralianBuildingOrPropertyName" nillable="true" minOccurs="0"/>
    <xsd:element name="LocationDescriptor"
      type="AustralianLocationDescriptor" nillable="true" minOccurs="0"/>
    <xsd:element name="HouseNumber" type="AustralianHouseNumber"
      nillable="true" minOccurs="0"/>
    <xsd:element name="HouseNumberSuffix"
      type="AustralianHouseNumberSuffix" nillable="true" minOccurs="0"/>
    <xsd:element name="HouseNumberTo" type="AustralianHouseNumber"
      nillable="true" minOccurs="0"/>
    <xsd:element name="HouseNumberToSuffix"
      type="AustralianHouseNumberSuffix" nillable="true" minOccurs="0"/>
  </xsd:sequence>
</xsd:group>

```

```

        <xsd:element name="HouseNumber2" type="AustralianHouseNumber"
nillable="true" minOccurs="0"/>
        <xsd:element name="HouseNumber2Suffix"
type="AustralianHouseNumberSuffix" nillable="true" minOccurs="0"/>
        <xsd:element name="LotNumber" type="AustralianLotNumber"
nillable="true" minOccurs="0"/>
        <xsd:element name="SectionNumber" type="SectionNumber"
nillable="true" minOccurs="0"/>
        <xsd:element name="DPNumber" type="DepositedPlanNumber"
nillable="true" minOccurs="0"/>
        <xsd:element name="StreetName" type="AustralianStreetName"
nillable="true" minOccurs="0"/>
        <xsd:element name="StreetType" type="AustralianStreetType"
nillable="true" minOccurs="0"/>
        <xsd:element name="StreetSuffix" type="AustralianStreetSuffix"
nillable="true" minOccurs="0"/>
        <xsd:element name="AddressLine1" type="AustralianAddressLine"
nillable="true" minOccurs="0"/>
        <xsd:element name="AddressLine2" type="AustralianAddressLine"
nillable="true" minOccurs="0"/>
        <xsd:element name="AddressLine3" type="AustralianAddressLine"
nillable="true" minOccurs="0"/>
        <xsd:element name="SuburbOrPlaceOrLocality"
type="AustralianSuburbOrPlaceOrLocality" nillable="true" minOccurs="0"/>
        <xsd:element name="StateOrTerritory"
type="AustralianStateOrTerritory" nillable="true" minOccurs="0"/>
        <xsd:element name="PostCode" type="AustralianPostCode"
nillable="true" minOccurs="0"/>
        <xsd:element name="DeliveryPointIdentifier"
type="AustralianDeliveryPointIdentifier" nillable="true" minOccurs="0"/>
        <xsd:element name="GNAFPID"
type="GeocodedNationalAddressFilePersistentIdentifier" nillable="true"
minOccurs="0"/>
        <xsd:element name="DistanceFromSubstation"
type="DistanceFromSubstation" nillable="true" minOccurs="0"/>
        <xsd:element name="VoltageType" type="VoltageType"
nillable="true" minOccurs="0"/>
        <xsd:element name="PoleNumber" type="PoleNumber" nillable="true"
minOccurs="0"/>
        <xsd:element name="AccessDetails" type="AccessDetail"
nillable="true" minOccurs="0"/>
        <xsd:element name="FeederClass" type="FeederClass"
nillable="true" minOccurs="0"/>
        <xsd:element name="CustomerClassificationCode"
type="EMSDCustomerClassificationCode" nillable="true" minOccurs="0"/>
        <xsd:element name="CustomerThresholdCode"
type="EMSDCustomerThresholdCode" nillable="true" minOccurs="0"/>
        <xsd:element name="TransmissionNodeIdentifier2"
type="TransmissionNodeIdentifier" nillable="true" minOccurs="0"/>

```



```

        <xsd:element name="SharedIsolationPointFlag"
type="SharedIsolationPointFlag" nillable="true" minOccurs="0"/>
        <xsd:element name="MeterMalfunctionExemptionNumber"
type="MeterMalfunctionExemptionNumber" nillable="true" minOccurs="0"/>
        <xsd:element name="MeterMalfunctionExemptionExpiryDate"
type="xsd:date" minOccurs="0"/>
        <xsd:element name="ConnectionConfiguration"
type="ConnectionConfiguration" nillable="true" minOccurs="0"/>
        <xsd:element name=" " type=" "
nillable=" " minOccurs="0"/>
        <!-- can be skipped and have the nil value-->
    </xsd:sequence>
</xsd:group>
<xsd:complexType name=" ">
    <xsd:annotation>
        <xsd:documentation>
Purpose - container for non-repeating standing data associated with an electricity
NMI
        </xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
        <xsd:element name="JurisdictionCode" type="JurisdictionCode"
nillable="true" minOccurs="0"/>
        <xsd:element name="NMIClassificationCode"
type="NMIClassificationCode" nillable="true" minOccurs="0"/>
        <xsd:element name="TransmissionNodeIdentifier"
type="TransmissionNodeIdentifier" nillable="true" minOccurs="0"/>
        <xsd:element name="DistributionLossFactorCode"
type="DistributionLossFactorCode" nillable="true" minOccurs="0"/>
        <xsd:element name="ParentEmbeddedNetworkIdentifier"
type="EmbeddedNetworkIdentifier" nillable="true" minOccurs="0"/>
        <xsd:element name="ChildEmbeddedNetworkIdentifier"
type="EmbeddedNetworkIdentifier" nillable="true" minOccurs="0"/>
        <xsd:element name="Address" type="AustralianPartialAddress"
nillable="true" minOccurs="0"/>
        <xsd:element name="Aggregate" type="YesNo" nillable="true"
minOccurs="0"/>
        <xsd:element name="Status" type="NMISTatusCode" nillable="true"
minOccurs="0"/>
        <xsd:element name="DistanceFromSubstation"
type="DistanceFromSubstation" nillable="true" minOccurs="0"/>
        <xsd:element name="VoltageType" type="VoltageType"
nillable="true" minOccurs="0"/>
        <xsd:element name="PoleNumber" type="PoleNumber" nillable="true"
minOccurs="0"/>
        <xsd:element name="AccessDetails" type="AccessDetail"
nillable="true" minOccurs="0"/>
        <xsd:element name="FeederClass" type="FeederClass"
nillable="true" minOccurs="0"/>

```

```

        <xsd:element name="CustomerClassificationCode"
type="EMSDCustomerClassificationCode" nillable="true" minOccurs="0"/>
        <xsd:element name="CustomerThresholdCode"
type="EMSDCustomerThresholdCode" nillable="true" minOccurs="0"/>
        <xsd:element name="ControlEquipments" type="ControlEquipments"
nillable="true" minOccurs="0"/>
        <xsd:element name="NetworkDevices" type="NetworkDevices"
nillable="true" minOccurs="0"/>
        <xsd:element name="EnergisationStatus" type="EnergisationStatus"
nillable="true" minOccurs="0"/>
        <xsd:element name="PrimaryVoltage" type="PrimaryVoltage"
nillable="true" minOccurs="0"/>
        <xsd:element name="FromDate" type="xsd:date" minOccurs="0"/>
        <xsd:element name="ToDate" type="xsd:date" minOccurs="0"/>
        <xsd:element name="TransmissionNodeIdentifier2"
type="TransmissionNodeIdentifier" nillable="true" minOccurs="0"/>
        <xsd:element name="SharedIsolationPointFlag"
type="SharedIsolationPointFlag" nillable="true" minOccurs="0"/>
        <xsd:element name="MeterMalfunctionExemptionNumber"
type="MeterMalfunctionExemptionNumber" nillable="true" minOccurs="0"/>
        <xsd:element name="MeterMalfunctionExemptionExpiryDate"
type="xsd:date" nillable="true" minOccurs="0"/>
        <xsd:element name="ConnectionConfiguration"
type="ConnectionConfiguration" nillable="true" minOccurs="0"/>
        <xsd:element name="LastCustomerChangeDate" type="xsd:date"
nillable="true" minOccurs="0"/>
        <!--confirm element name-->
    </xsd:sequence>
</xsd:complexType>

```

## Events **r43**.xsd

```

<xsd:simpleType name="r43">
    <xsd:annotation>
        <xsd:documentation>Purpose - Release r43
identifier.</xsd:documentation>
    </xsd:annotation>
    <xsd:restriction base="ReleaseIdentifier">
        <xsd:enumeration value="r43"/>
    </xsd:restriction>
</xsd:simpleType>

```

**MDMTReports\_r43.xsd**

```

<xsd:complexType name="[REDACTED]">
  <xsd:annotation>
    <xsd:documentation>
      Purpose - Parameter definition for SAPS Reconciliation
      Report Name - RegulatedSAPSGenerationReconciliation
      MSATS Reports - RM51
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexContent>
    <xsd:extension base="BaseReportParameters">
      <xsd:sequence>
        <xsd:element name="[REDACTED]"
type="MDMSettlementCaseIdentifier"/>
        <xsd:element name="[REDACTED]"
type="ProfileDescription" minOccurs="0"/>
        <xsd:element name="[REDACTED]"
type="TransmissionNodeIdentifier" minOccurs="0"/>
        <xsd:element name="[REDACTED]" type="NMIBase"
minOccurs="0"/>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

```

**OneWayNotification\_r43.xsd**

```

<xsd:complexType name="[REDACTED]">
  <xsd:sequence>
    <xsd:element name="[REDACTED]" type="NMI" />
    <xsd:element name="[REDACTED]" type="xsd:date"/>
    <xsd:element name="[REDACTED]"
type="SharedIsolationPointFlag"/>
  </xsd:sequence>
  <xsd:attribute name="version" type="r43" use="optional" default="r43"/>
</xsd:complexType>

```

## Transactions\_r43.xsd

```

<xsd:complexType name="Transaction">
  <xsd:annotation>
    <xsd:documentation>
      Purpose - Common container for all transactions
      Detail - All transactions within aseXML are carried within this container. The
      transactionID and transactionDate are provided for all transactions. The
      initiatingTransactionID is only provided on response transactions and represents
      the transactionID of the initiating transaction.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element name="ReplicationRequest"
type="ReplicationRequest"/>
    ...
    <xsd:element name="OneWayNotification"
type="OneWayNotification"/>
    <xsd:element name="SharedFuseNotification"
type="SharedFuseNotification"/>
    <xsd:element name="LifeSupportNotification"
type="LifeSupportNotification"/>
    <xsd:element name="LifeSupportRequest"
type="LifeSupportRequest"/>
  </xsd:choice>
  <xsd:attribute name="transactionID" type="TransactionIdentifier"
use="required"/>
  <xsd:attribute name="transactionDate" type="xsd:dateTime"
use="required"/>
  <xsd:attribute name="initiatingTransactionID"
type="TransactionIdentifier" use="optional"/>
</xsd:complexType>

```

## A2. Updated C1 report example

```
<?xml version="1.0" ?>
<ase:aseXML xmlns:ase="urn:aseXML:r43"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r43
http://www.nemmco.com.au/aseXML/schemas/r43/aseXML_r43.xsd">
  <Header>
    <From description="Australian Energy Market Operator Limited">NEMMCO</From>
    <To description="Australian Energy Market Operator Limited">NEMMCO</To>
    <MessageID>NEMMCO-MSG-1129710068</MessageID>
    <MessageDate>2023-02-15T14:13:43+10:00</MessageDate>
    <TransactionGroup>CATS</TransactionGroup>
    <Priority>Medium</Priority>
    <SecurityContext>NEMMCOBATCH</SecurityContext>
    <Market>NEM</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="CATS-1129710068" transactionDate="2023-02-
15T14:13:43+10:00" initiatingTransactionID="154921695">
      <ReplicationNotification version="r10">
        <ReplicationParameters>
          <TableName>METER_USE</TableName>
          <CreationFromDate>2022-10-19T00:00:00+10:00</CreationFromDate>
          <CreationToDate>2022-10-19T23:59:59+10:00</CreationToDate>
          <LastSequenceNumber>0</LastSequenceNumber>
          <MaximumRows>200</MaximumRows>
        </ReplicationParameters>
      <ReplicationBlock tableName="MSATSCodesDated">
        <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
          <SequenceNumber>531</SequenceNumber>
          <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
          <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
          <RowStatus>A</RowStatus>
          <CodeGroup>METER_USE</CodeGroup>
          <Code>AVERAGE</Code>
          <Description>AVERAGE</Description>
          <FromDate>2022-04-02T00:00:00+10:00</FromDate>
          <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        </Row>
        <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
          <SequenceNumber>532</SequenceNumber>
          <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
          <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
          <RowStatus>A</RowStatus>
          <CodeGroup>METER_USE</CodeGroup>
```

```

    <Code>CHECK</Code>
    <Description>CHECK</Description>
    <FromDate>2022-04-02T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
    <SequenceNumber>533</SequenceNumber>
    <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <CodeGroup>METER_USE</CodeGroup>
    <Code>INFORM</Code>
    <Description>INFORM</Description>
    <FromDate>2022-04-02T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
    <SequenceNumber>534</SequenceNumber>
    <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <CodeGroup>METER_USE</CodeGroup>
    <Code>LOGICAL</Code>
    <Description>LOGICAL</Description>
    <FromDate>2022-04-02T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
    <SequenceNumber>535</SequenceNumber>
    <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <CodeGroup>METER_USE</CodeGroup>
    <Code>PREPAID</Code>
    <Description>PREPAID</Description>
    <FromDate>2022-04-02T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
    <SequenceNumber>536</SequenceNumber>
    <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <CodeGroup>METER_USE</CodeGroup>
    <Code>REVENUE</Code>

```

```

    <Description>REVENUE</Description>
    <FromDate>2022-04-02T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
    <SequenceNumber>537</SequenceNumber>
    <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <CodeGroup>METER_USE</CodeGroup>
    <Code>SAMPLE</Code>
    <Description>SAMPLE</Description>
    <FromDate>2022-04-02T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
    <SequenceNumber>538</SequenceNumber>
    <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <CodeGroup>METER_USE</CodeGroup>
    <Code>STATIS</Code>
    <Description>STATIS</Description>
    <FromDate>2022-04-02T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
    <SequenceNumber>539</SequenceNumber>
    <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <CodeGroup>METER_USE</CodeGroup>
    <Code>TUOS</Code>
    <Description>TUOS</Description>
    <FromDate>2022-04-02T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:MSATSCodesDatedRow">
    <SequenceNumber>540</SequenceNumber>
    <CreationDate>2022-10-19T12:07:52+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <CodeGroup>METER_USE</CodeGroup>
    <Code>UNKNOWN</Code>
    <Description>UNKNOWN</Description>

```

Updated C1 report example

```
<FromDate>2022-04-02T00:00:00+10:00</FromDate>
<ToDate>9999-12-31T00:00:00+10:00</ToDate>
</Row>
</ReplicationBlock>
  <Event severity="Information">
    <Code>0</Code>
    <Explanation>Success</Explanation>
  </Event>
  </ReplicationNotification>
</Transaction>
</Transactions>
</ase:aseXML>
```



# A3. Version History

## 9.1 V1.00

- Removed references to the MCPI project (Metering Exemptions) as it is released in the MSATS 49.1 Release (TBC).
- Clarification of no change to the PersonNameTitle and PersonGivenName for this Release.

PersonNameTitle	No change	Mandatory
PersonGivenName		

- More details about the ERCF enhancements.
- More details about SAPS.
- More details about the RM51 Regulated SAPS Generation Reconciliation report.
- Addition of MSATS generic field names.

Moved (insertion) [1]

## 9.2 V0.01

No version history, this was the initial draft release.