1.

MSATS 47.10 Technical Specification – May 2022

v3.00 January 2022

Pre-production: Monday 28 March 2022

Production: Sunday 01 May 2022

Important Notice

PURPOSE & AUDIENCE

This document describes the technical changes required to participant's systems for the MSATS 47.10 Technical Specification – May 2022 (Release). The Australian Energy Market Operator (AEMO) provides this information as a service targeting business analysts and IT staff in participant organisations. It provides guidance about the changes to their market systems under the National Electricity Rules (Rules), as at the date of publication.

HOW TO USE THIS DOCUMENT

- If you have questions about the business aspects of these changes, please see Consultations on **AEMO's website**.
- The references listed throughout this document are primary resources and take precedence over this document.
- Unless otherwise stated, you can find resources mentioned in this guide on AEMO's website.
- **Text in this format** is a link to related information.
- **Text in this format**, indicates a reference to a document on **AEMO's website**.
- **Text in this format** is an action to perform in the MSATS Web Portal.
- This document is written in plain language for easy reading. Where there is a discrepancy between the Rules and information or a term in this document, the Rules take precedence.
- Rules and Glossary Terms are capitalised and have the meanings listed against them in **the National Electricity Rules (NER)** and **Guide to MSATS and B2B Terms**.

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DOCUMENT IDENTIFICATION

Prepared by: AEMO Technology

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VERSION HISTORY

3.00 See **Changes in this version** and **Appendix 1 - Version History**.

DOCUMENTS MADE OBSOLETE

The release of this document changes only the version of MSATS 47.10 Technical Specification – May 2022.

CONTACT US

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

Contents

1 Introduction

1.1 Audience

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

1.2 Objective

The MSATS 47.10 Technical Specification – May 2022 (Release) describes the projects and enhancements planned by AEMO from a participant perspective and includes the related changes to participants' IT systems.

1.3 Status

Version	Status
3.00	Further detail about the Metering Coordinator Planned Interruptions (MCPI), MSATS Standing Data Review (MSDR), and B2M Electricity aseXML Schema r42 – Phase 1 and Phase 2 designs. **The designs are 90% complete. Expect some additional information for error codes and clarification of some FAQs but not many more changes** There are **no** changes for the Global Settlement project Please provide feedback, proposed agenda items, or questions to **gsmsdr@aemo.com.au**
2.00	Includes the Metering Coordinator Planned Interruptions (MCPI) and MSATS Standing Data Review (MSDR) designs. **This is an early heads up. The designs are evolving and expected to change. We will provide more detail in the coming weeks** There are **no** changes for Global Settlement and ~~B2B Transactions~~ projects Please provide feedback in AEMO's website **contact us** form
1.00	Presents the MSATS 47.10 Global Settlement and ~~B2B Transactions~~ design at the time of publication

1.4 Shared isolation point flag release dates

Scheduled for implementation in:

- Pre-production: Monday 28 March 2022

- Production: Sunday 01 May 2022

1.5 Version numbers

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 technical specification.

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

1.6 Changes in this version

1. Removal of B2M aseXML schema change r39_p1 and Customer Switching details. Details are in **MSATS 46.99 Technical Specification.**

2. Additional details about the **Shared Isolation Point Flag** and Change Requests.

3. Additional **B2M aseXML Schema r42 − Phase 1** information.

4. Additional **B2M aseXML Schema r42 − Phase 2** information

5. Interface examples for changes to the **MSATS Web Portal** for the Shared Isolation Point Flag.

6. Examples of updated **MSATS Reports**: C1, C4, and C7.

7. Additional information in the **proposed timeline**.

8. **FAQs** from the first MSDR Focus Group meeting.

1.7 Rule and procedure changes

Details	Effective
11.103 Rules consequential on the making of the National Electricity Amendment (Five Minute Settlement) Rule 2017 and the National Electricity Amendment (Delayed implementation of five minute and global settlement) Rule 2020	1 October 2021
5MS/GS Standing Data Changes	1 October 2021
7.16.2 National Electricity Rules	1 October 2021
AEMC's Five-Minute Settlement rule change	1 July 2021
Exemption Procedure – Metering Installation Malfunctions v1.2	1 May 2022
Global settlement and market reconciliation Amending rules chapters: 2,3,6,7,10,11	1 May 2022
Introduction of metering coordinator planned interruptions (MCPI)	Schedule 3 28 May 2020 Schedule 2 1 July 2021 Schedule 1 21 July 2020
Metrology Procedure: Part A v7.3	1 May 2022
MSATS Procedures: CATS Procedure Principles And Obligations v4.93	1 October 2021
MSATS Procedures: Procedure for the Management of WIGS NMIs v4.93	1 October 2021
MSATS Standing data review phase 1	14 March 2022
Retail Electricity Market Procedures – Glossary And Framework v3.5	1 May 2022
Standing Data for MSATS v4.6	1 May 2022
<mark>MSDR and MCPI Effective Date Change Process</mark>	7 November 2022

1.8 Related technical specifications

Title	Description
MSATS 46.98 Technical Specification	5MS, Customer Switching schema, B2M aseXML schema r39_p1
MSATS 46.99 Technical Specification	5MS and Customer Switching releases
MSATS 47.0 Technical Specification	B2B aseXML schema r41
MSATS 47.1 Technical Specification	This technical specification GS functionalities, Shared Isolation Point Flag, B2M aseXML schema r42 for Shared Isolation Point Flag
MSATS 47.2 (TBC) Technical Specification	Bind Update Tool (BUT) details Initial publication early February 2022
MSATS 48.0 Technical Specification	Initial publication around May 2020

1.9 Related resources

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

Title	Description	Status
Guide to CSV Data Format Standard	Updated with new fields	V2.00 Published **PDF** **Online** (requires a MarketNet connection)
Guide to MSATS reports	Updated with changes to in line with this technical specification	In progress
Guide to MSATS Web Portal	Updated with changes to in line with this technical specification	In progress

Title	Description	Status
Technical Guide to MSATS	Updated with changes in line with this technical specification	In progress

1.10   Approval to change

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

AEMO sought approval in:

- **AEMC's Five-Minute Settlement rule change**

- **MSDR and MCPI Effective Date Change Process**

1.11   May 2022 readiness working group (RWG)

The **May 2022 Readiness Working Group (RWG)** coordinates readiness activities for Global Settlement (GS), MSATS Standing Data Review (MSDR) and Metering Coordinator Planned Interruption (MCPI) Program releases. For details about the RWG contact **gsmsdr@aemo.com.au**.

1.12   MSDR focus group

1.12.1 **Purpose**

Provides a forum for Industry and AEMO to consider key milestones, transitions, and mechanisms associated with the successful implementation of MCPI and MSDR. The focus is on areas directly impacted by these projects.

1.12.2 **Membership**

Open to all participants.

1.12.3 **Prerequisites**

Familiarity with MCPI and MSDR concepts and requirements.

1.12.4 **Meeting frequency**

As required (probably monthly)

1.12.5 **Communication**

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

1.13 **MSUG meetings**

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

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

1.14 Projects and enhancements

1.14.1 5MS retail

The 5MS retail project has 3 separate MSATS releases:

1. MSATS 46.98 Technical Specification: covers the go-live of the MDM platform ahead of 5MS market start.

2. MSATS 46.99 Technical Specification: covers the 5MS market start where AEMO settles the market at 5-minute intervals using settlements by difference and begins reporting on UFE. Also includes Customer Switching.

3. MSATS 47.1 Technical Specification: (this document) covers the Global Settlement go-live rule change.

5MS Milestones

| 46.98 Production Go Live | 5/15 Min Metering Data accepted | 46.99 5MS Market Go-Live | | 47.1 GS Market Go-Live |

| **MSATS 46.98** | **MSATS 46.99** | **MSATS 47.1** |

Production Go Live
- AEMO settles at 30min
- aseXML r39_p1 release
- New API API-Push and API-Pull protocol support
- MSATS Browser support for new meeting data obligations and new settlement screens
- Support for new CRs, TNI2, Q&Q and new NMI Classification codes.
- MDMT Meter Data Report-Request RM37, RM38, RM39
- Support for MDMT Interval, Profile and Consumption at 30min
- Support for MTRD NEM12 at 30min
- Support for MTRD NEM13
- Acceptance of CNDS defined at Net or Register suffix

5/15 Min Metering Data accepted
- Support for MTRD NEM12 at 5/15min rolled up to 30min

5MS Market Go-Live
- AEMO settles at 5-min
- MSATS Browser supports TNI2 and Multi Use NMI details
- New CR rejection logic for CNDS Suffix and Type
- MDMT UFE Report-Request RM43, RM46
- MDMT for Interval and Profile meters rejected

Customer Switching Go-Live
- Retired change reason codes
- Ability to reverse previous CR
- Update to CR validation rules
- Modified process for RDAT issuing
- Support for Previous read date and quality flags

GS Go-Live
- Configuration of "GLOPOOL" Participant IDs.
- New CR rejection logic for Participant IDs.

MSATS Standing Data Review Phase 1
- CATS NMI Standing Data: Shared Isolation Point Flag to support MCPI
- aseXML r42 release

MSATS Releases

| 46.99 Customer Switching Go-Live | 47.0 B2B Changes Go-Live | 47.1 MSATS Standing Data Review Go-Live |

1.14.2 **GS functionalities**

The 5MS MSATS 47.1 functionalities included in this Release are:

Settlements	AEMO settles the market at 5-minutes by Global Settlements
Standing Data and CRs	The introduction of new Change Request (CR) rejection logic to support participants adherence to procedural obligations The GLOPOOL Participant ID is made effective
Reports	AEMO's obligation to publish Unaccounted For Energy (UFE) is formalised

1.14.3 **MSATS Standing Data Review (MSDR)**

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

For details, see MSATS Standing data review.

Phase 1 - 1 May 2022	Phase 2 - 7 November 2022	Phase 3 TBC
MSATS release MSATS Release 47.1 (this Release) CATS NMI Standing Data: Shared Isolation Point Flag	MSATS release 48.0 CATS Standing Data: New, Amended, Retired, MSDR Fields	MSATS release 49.0 (TBC) Meter Exemptions
	MSATS release 47.2 (TBC) Blind Update Tool: Current NMI Standing Data updates	
aseXML B2M schema r42 Phase 1: Shared Isolation Point Flag field **only** released for use	**aseXML B2M schema r42** Phase 2: Other fields in use	
	Data Transitions and Scripted changes	

1.14.3.1   Standing data update approach

AEMO update suggestions:

- Where possible, use the existing CR2000 and CR5000 series Change Request process to populate the MSDR data.

- When available and relevant, use the Blind Update Tool (BUT) to populate the MSDR data. For details, see **MSATS 47.2 (TBC) Technical Specification** (initial publication early February 2022). Principles of using the BUT tool:

  - The field is new.

  - Only the current active row is updated.

  - No notifications are issued.

For proposed methods for field updates, see:

- Shared Isolation Point Flag **Proposed method for field update**.

- **Proposed Method for Field Updates – Phase 2**.

1.14.3.2   Unstructured addresses

AEMO intends to work with LNSPs to assist in the transition from unstructured to structured addresses. Post-7 November unstructured addresses:

- Cannot be populated.

- Remain visible in NMI Discovery and MSATS until replaced.

1.14.3.3   Current and future projects impacting MSDR

Current and future projects impacting MSDR, but not limited to, include:

- Consumer Data Right

- Embedded Networks

- Stand-alone Power Systems

- Wholesale Demand Response (WDR) (complete 24 October 2021)

- **Blind Update Tool** for blind update submissions and responses (delivered in a later MSATS release: **MSATS 47.2 (TBC) Technical Specification**).

- **Metering Coordinator Planned Interruptions (MCPI)** rule change

- Meter Exemptions

1.14.4 Metering Coordinator Planned Interruptions (MCPI)

Metering Coordinator Planned Interruptions (MCPI) is the implementing of CATS Standing Data changes to support the rule requirement delivered as part of the MSATS Standing Data Review (MSDR) project.

> **For details, see MSDR and MCPI Effective Date Change Process.**

Related changes for the MCPI rule include:

1. **Shared Isolation Point Flag**

2. **B2M aseXML schema r42- Shared Isolation Point Flag**

1. **MSATS Web Portal**

2. **MSATS Reports**

2 Proposed Timeline

Milestone	Date	Description
Approval required	n/a	No approval required
B2M aseXML schema r42 submissions	10 December 2021	**B2M aseXML draft schema r42** submissions closed
MSDR focus group	Wednesday 23 February 2022	This date is an indication only. Meeting requests and agendas take precedence Participants can send proposed agenda items, questions or comments to **gsmsdr@aemo.com.au**.
Revised Technical Specification	March 2022	Further details of the changes to assist IT staff with their own technical implementation
Pre-production refresh	March 2022	Refresh of the pre-production system with data refreshed from the production system. An outage of up to five days can occur to the pre-production environment during this period. Participant access is not restricted, however, AEMO does 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 may be intermittently affected Last refresh: Thu 1/07/21 - Tue 20/07/21 The pre-production environment was refreshed with production data, up to 4 July 2021 06:00 PM (AEST)
MSUG pre-release review	Wednesday 16 March 2022	Market Systems User Group Meeting (MSUG) to review the technical specification and ask AEMO technical SMEs questions This date is tentative. The project manager will provide an invitation one week prior to the meeting
Pre-production – transition to B2M aseXML schema to r42	Monday 21 March 2022	If you are transitioning to r42, ensure your receiving schema version is correctly set in the pre-production MSATS Web Portal at least one week before the Release Dates. For help, see **Participant Impact**
Pre-production implementation	Sunday 20 March 2022 – Monday 28 March 2022	AEMO implements components of the Release to pre-production for participant testing AEMO has full access to the system during this period Participant access is not restricted; however, the data content or system availability is not guaranteed

Milestone	Date	Description
GS pre-production available	For details, see the **Global Settlement**	Global Settlement pre-production release
Shared Isolation Point Flag available in pre-production	Monday 28 March 2022	Testing period begins for the MSDR project
Related resources release	Monday 28 March 2022	Release of guides and resources mentioned in **Related resources**
Blind update tool pre-production available	April 22	TBC **MSATS 47.2 (TBC) Technical Specification**
MSUG pre-production review	Wednesday 13 April 2022	Market Systems User Group Meeting (MSUG) to review the implementation of this pre-production release and ask AEMO technical SMEs questions This date is tentative. The project manager will provide an invitation one week prior to the meeting
Production – transition to B2M aseXML schema to r42	Sunday 24 April 2022	If you are transitioning to r42, ensure your receiving schema version is correctly set in the production MSATS Web Portal at least one week before the Release Dates. For help, see **Participant Impact**
Blind update tool production available	May 22	TBC **MSATS 47.2 (TBC) Technical Specification**
MCPI rule commencement	Sunday 1 May 2022	Shared Isolation Point Flag
Production implementation	Friday 22 April 2022 – Sunday 01 May 2022	AEMO implements the release to production
GS production systems available	For details, see **Global Settlement**	Global Settlement production release
Shared Isolation Point Flag and aseXML schema r42 available in production systems	Sunday 01 May 2022	Production systems available to participants

Milestone	Date	Description
MSUG: post-implementation review	Wednesday 11 May 2022	MSUG to review the implementation of this production release and ask AEMO technical SMEs questions This date is tentative. The project manager will provide an invitation one week prior to the meeting
MSATS procedures v4.93 effective	Midnight Sunday 6 November 2022	For details, see **Rule and procedure changes**
MSDR commencement	Monday 7 November 2022	For details, see **MSATS Standing Data Review (MSDR)**
<mark>MCPI compliance holiday finishes</mark>	Monday 1 May 2023	
<mark>MSDR compliance holiday finishes (exc. GPS)</mark>	Tuesday 7 November 2023	
<mark>GPS compliance holiday finishes</mark>	Friday 7 November 2025	

3 Participant Impact

3.1 Global settlement

Understand the Change Request updates for the **Global Settlement (GS)** project.

3.2 UFE calculation

Understand what affects you for the **UFE** changes.

3.3 Shared isolation point flag

Understand how the new **Shared Isolation Point Flag** affects your systems and your **update approach**.

3.4 B2M electricity aseXML schema r42

For this Release only the new **Shared Isolation Point Flag** becomes available for use.

The other MSDR related fields are present in r42, but not implemented until the November 2022 release. For details, see Appendix 2 - B2M Electricity aseXML Schema r42 – Phase 2 on page 86.

For more details about the B2M aseXML schema r42 changes for this Release, see B2M Electricity aseXML Schema r42 – Phase 1 on page 22

If you set and maintain or want to view the new Shared Isolation Point Flag against a NMI, you must transition to B2M aseXML schema r42 by this Release Date. Otherwise, you can wait for the November 2022 release.

When the B2M aseXML schema change r42 becomes effective, it is the LATEST version for CATS, NMID, and MDMT transactions types.

If you are on B2M aseXML schema SUPERSEDED r35 it is no longer supported by AEMO.

> **For more details, see B2M aseXML Schema r42 – Phase 1**

3.4.1 Do I need to upgrade to B2M aseXML schema r42?

Yes, if you set and maintain or want to view the new Shared Isolation Point Flag against a NMI. Otherwise, you can wait for the November 2022 release to upgrade to B2M aseXML schema r42.

For participants on the SUPERSEDED (r39_p1, r35, or lower) B2M CATS schema version, MSATS removes the Shared Isolation Point Flag element.

3.4.2 Schema versions

AEMO supports the Latest and Superseded aseXML schema versions only. For this Release, the following B2M electricity aseXML schema versions apply for all Transactions.

Prior to release dates	On release dates	AEMO action	The Participant ID can receive	Required participant action
LATEST r39_p1	LATEST r42	Moves you to r42 Sends messages in r42	Both LATEST r42 and CURRENT r39_p1	Support receiving of r42
CURRENT r39_p1	CURRENT r42	Moves you to Superseded r39_p1 Sends messages in r39_p1	The SUPERSEDED r39_p1 version only	Choose when to transition to r42
SUPERSEDED r35	SUPERSEDED r39_p1 AEMO no longer supports r35 and lower	Moves you to Superseded r39_p1 Sends messages in r39_p1	The SUPERSEDED r39_p1 version only	Support receiving of r39_p1 Transition to r42 before the next aseXML version release

3.4.3 **Transition for shared isolation point flag**

Ensure your receiving schema version is correctly set in the MSATS Web Portal at least one week before the Release Dates.

For help, changing your schema version in the MSATS Web Portal, see **Guide to MSATS Web Portal** > **Participants** > **Participant Schema**.

For help with schema transitions, see **Guide to Transition of aseXML**.

To obtain schemas, guidelines, whitepapers etc, see **aseXML Standards**.

Participant aseXML Schema

B2M transaction group	Receiving schema version	Change to version	Receiving protocol	Change to protocol
CATS	CURRENT	Current ▼	FTP	ftp ▼
NMID	LATEST	Latest ▼	FTP	ftp ▼
MDMT	LATEST	Latest ▼	FTP	ftp ▼

Outbox Status: EMPTY   0 zip files in outbox

4 B2M Electricity aseXML Schema r42 – Phase 1

4.1 Important information

For this Release, the only new field in the B2M schema r42 to come into use is the Shared Isolation Point Flag. Other changes in the B2M aseXML schema r42 release become effective in MSDR Phase 2, effective in November 2022. For details, see Appendix 2 - B2M aseXML Schema r42 – Phase 2**.**

The aseXML schema release r42 affects the B2M electricity aseXML schema only.

There are no changes to the B2B electricity aseXML schema for this Release. The current B2B aseXML schema is r41 for MTRD, SORD, MRSR, CUST, SITE, OWNP, OWNX, NPNX, and PTPE B2B transactions.

4.2 Shared isolation point flag

This Release for MSDR Phase 1, implements the Shared Isolation Point Flag, complying with the MCPI rule change.

While there are other B2M Schema r42 elements implemented in this Release, the supporting MSATS application changes are not implemented until the MSDR Phase 2 release in November 2022 (TBC).

4.3 **B2M messages**

For B2M messages, the NMI Standing Data SharedIsolationPointFlag is linked to the following new element in the B2M aseXML schema r42, **ElectricityMasterStandingData_r42.xsd**:

> **For more information about B2M Schema r42, see** aseXML r42 draft schema **and Appendix 2 - B2M Electricity aseXML Schema r42 – Phase 2**

Field	aseXML path	aseXML data type
SharedIsolationPointFlag	ElectricityStandingData/MasterData/SharedIsolationPointFlag	xsd:string maxLen = 1

4.4 **Message exchange**

AEMO accepts inbound B2M Messages and Transactions from the Initiator in the B2M aseXML schema r42 for the following B2M MDMT and MTRD Transaction types:

- Meter Data Notifications

- Meter Date Response

- Report Request

- Report Response

Where AEMO cannot determine the schema version of an inbound B2M message, AEMO sends a synchronous negative Acknowledgement in a default aseXML r42.

When an inbound B2M Business Document such as a CATS Change Request is exchanged between participants and AEMO, AEMO creates the following synchronous Business Documents and Business Signals and sends them to the Initiator in the same aseXML version:

1. A positive or negative message acknowledgement.

2. A response Transaction acknowledgement bundled with the message acknowledgement.
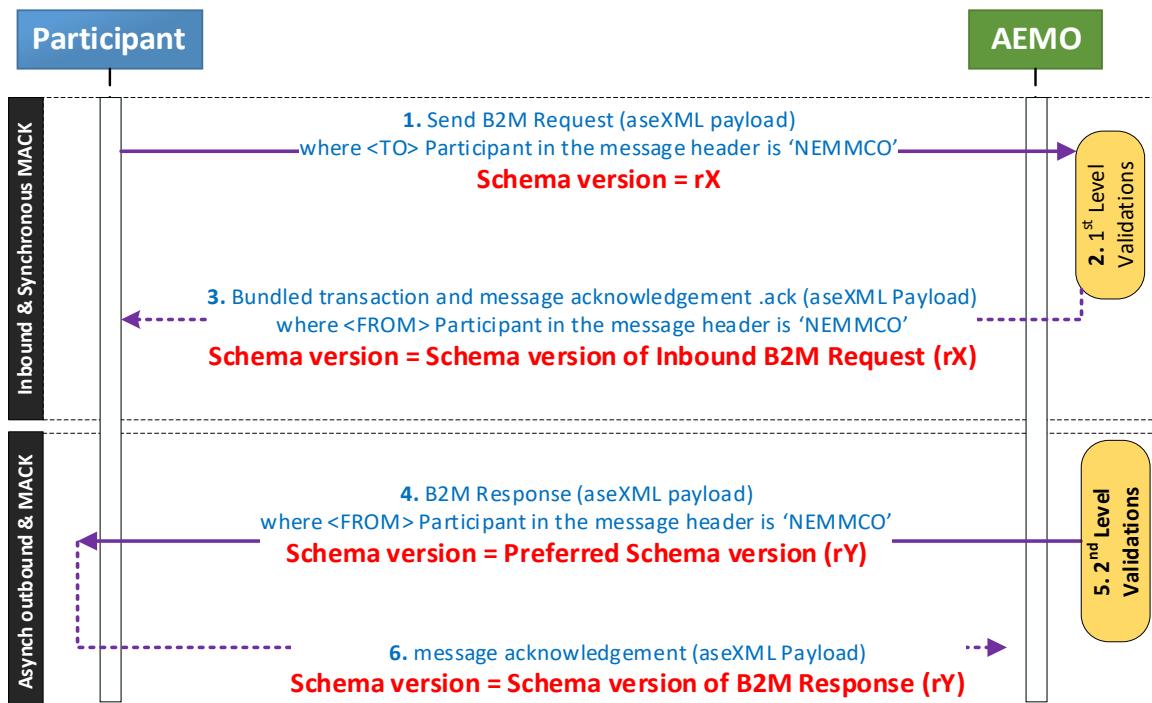
4.5 Transition of B2M schema r42 elements

Apart from the Shared Isolation Point Flag element, other B2M Schema r42 elements are ignored if submitted in a CATS Change Request and absent from CATS Notifications, NMI discoverable data, and CATS Reports generated by AEMO.

For details about phase 2 B2M Schema r42 changes, see Appendix 2 - B2M Electricity aseXML Schema r42 – Phase 2 on page 86.

4.6 Hazard, location, and Location Descriptor

The maximum length of the Hazard, Location, and LocationDescriptor aseXML elements r42 are increased for this Release but the supporting MSATS application changes are not implemented until the November 2022 release.

AEMO previously advised they will trim these fields if participants submit the longer field before 7 November 2022. Trimming or rejection is to be confirmed.

For this Release, CATS Notifications, NMI discoverable data, and CATS Reports generated by AEMO, the B2M aseXML values have a maximum length of 12, 50, and 30 characters respectively.

Field	Table	Change
Hazard	CATS_METER_REGISTER	VARCHAR2(12)
Location	CATS_METER_REGISTER	VARCHAR2(50)
LocationDescriptor	CATS_NMI_DATA	VARCHAR2(30)

4.7 Test result accuracy not transformed

This element is existing and renamed from TestResult to TestResultAccuracy so is not transformed.

When AEMO does not transform fields, a comment is added at the message level indicating the field was not transformed.

Where the field's data type changes in r42, AEMO does not transform from LATEST r42 to SUPERSEDED r39_p1.

The following field is not transformed:

Field	Table	Change
TestResultAccuracy	CATS_METER_REGISTER	Data Type

5   Global Settlement (GS)

5.1   Change requests

Change request	Change	Action
1000	New Rejection Logic for GLOPOOL participant ID on FRMP role	Add
1020	New Rejection Logic for GLOPOOL participant ID on FRMP role	Add
2000	Changes to Status Notification Rules	Update
2000	New Rejection Logic for GLOPOOL participant ID on FRMP role	Add
2000	New Rejection Logic for GLOPOOL participant ID on LR role	Add
2001	Changes to Status Notification Rules	Update
2001	New Rejection Logic for GLOPOOL participant ID on FRMP role	Add
2001	New Rejection Logic for GLOPOOL participant ID on LR role	Add
2500	Changes to Status Notification Rules	Update
2500	New Rejection Logic for GLOPOOL participant ID on FRMP role	Add
2500	New Rejection Logic for GLOPOOL participant ID on LR role	Add

Change request	Change	Action
2501	Remove Status Notification Rules for Participant Type	Remove
2501	New Rejection Logic for GLOPOOL participant ID on FRMP Role	Add
2501	New Rejection Logic for GLOPOOL participant ID on LR role	Add
5001	New Rejection Logic for GLOPOOL participant ID on FRMP role	Add
5001	New Rejection Logic for GLOPOOL participant ID on LR role	Add
5050	Change to Status Notification Rules	Update
5051	Change to Status Notification Rules	Remove
5080	Change to Status Notification Rules	Remove
5081	Change to Status Notification Rules	Remove
6400	Inactivate Change Request Type	Remove
6401	Inactivate Change Request Type	Remove
6700	Change to Status Notification Rules	Update
6701	Change to Objection Rules	Update

5.1.1 CATS CR objection rules

The ability for Local Retailers to object to a CATS CR is removed.

Details of affected CRs are documented in the CATS and WIGS Procedures.

5.1.2 GLOPOOL participant

Logic introduced to reject transfer CRs to reject transfers where the FRMP Participant ID equals GLOPOOL.

5.1.3 Change LR

CRs CR6400 and CR6401 are removed.

5.1.4 CATS CR notifications

Notifications for CR Status changes to Local Retailers is removed.

6 UFE Calculation Prior to Global Settlements Go Live

Unaccounted for Energy (UFE) is the remainder of Energy flowing in or out of a Local Area after calculating the sum of all recorded load, generation, and Distribution Loss Factors (DLFs).

Currently, UFE is included with Tier 1 consumption and assigned to Local Retailers (LRs). For 5-Minutes Settlements, AEMO calculates and reports the UFE proportioned for each FRMP.

6.1 UFE calculation example

Import (generation) 1000 kWh – { Export (load) 900 kWh + Loss Factor (DLF 1%) 9 kWh } = UFE 91 kWh

A =Sys Load Data
-
B = All 5 min Interval Data
-
C = CLP Load Data
-
D = Profiled Int Data*
-
2nd Tier Accumulation Data*
-
1st Tier Accumulation Data*
=
Unaccounted for Energy (UFE)

* Includes 5min data for Non-Contestable Unmetered Loads
* 30min & 15min interval data will be profiled to 5min data
* Excludes any Controlled Load Accumulation Data included in the CLP Load Data
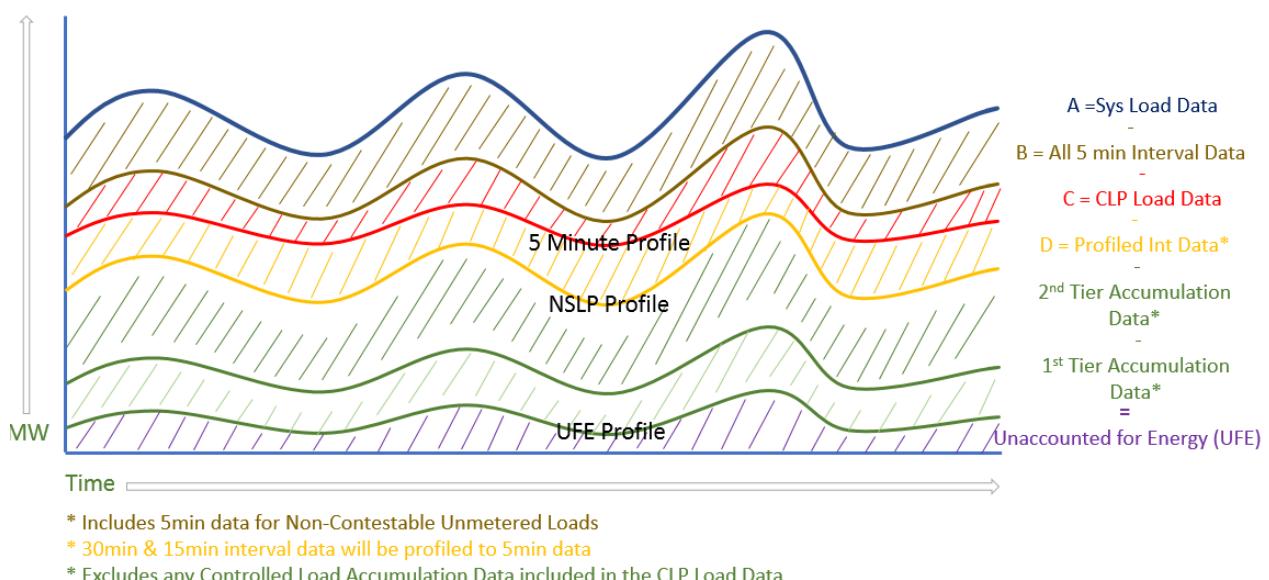
When 5-Minute Settlement goes live, AEMO continues to bundle UFE with the Tier 1 basic data and the Non-Contestable Unmetered Loads with the Local Retailer (LR) Settlement.

6.2   AEMO calculation of UFE values

AEMO must calculate UFE values and show how it is applied to each Retailer (FRMP) in a Global Settlements (GS) environment.

To provide an accurate UFE calculation all loads are set up in MSATS and Metering Data provided.

Market Participants are required to do the following in MSATS:

1. Create or update all Tier 1 NMIs having an active NMI Datastream and provide MDP Metering Data.

2. Register Non-Contestable Unmetered Loads and provide MDP Metering Data.

6.3   Calculation of UFE for market participants

UFE is calculated separately for each Local Area and applied to each Retailer (FRMP) by the proportion of Energy used in the Local Area.

For example, Retailer 1 uses 404 kWh, Retailer 2 uses 202 kWh, and Retailer 3 uses 303 kWh. Continuing from the UFE calculation example on page 30.

1. UFE Retailer 1 = Energy Used 404 / Total Energy used 910 x Total UFE 91 = 40.44

2. UFE Retailer 2 = Energy Used 202 / Total Energy used 910 x Total UFE 91 = 20.22

3. UFE Retailer 3 = Energy Used 303 / Total Energy used 910 x Total UFE 91 = 30.33

6.4 Changes to NMI standing data

To aid the Settlements process new NMI Classification Codes are created. Below are examples of the application of the new NMI Classification Codes.

6.4.1 Transmission network connection point examples

Transmission Network

Generator

Spot Market Customer

Generation & Load

NMI = TG
NMI Class = GENERATR
FRMP = GenPartId%
LR = POOL%
LNSP = TNSP
NSP2 =
TNI = TNI%
Aggregate = N

NMI = TC
NMI Class = WHOLESAL
FRMP = CustId%
LR = POOL%
LNSP = TNSP
NSP2 =
TNI = TNI%
Aggregate = Y

NMI = TB (1)
NMI Class = GENERATR
FRMP = GenPartId%
NMI = TB (2)
NMI Class = WHOLESAL
FRMP = CustId%
LR = POOL%
LNSP = TNSP
NSP2 =
TNI = TNI%
Aggregate = N

Trans to Dist

NMI = TD
NMI Class = BULK
FRMP = GLOPOOL%
LR = POOL%
LNSP = TNSP
NSP2 = DNSP
TNI = TNI% (WXYZ)
Aggregate = Y

Distribution Network

6.4.2 Changes for transmission network connection points:

Transmission Network to Distribution Network Connection Points change to BULK to differentiate them from WHOLESAL customer connections.

6.4.2.1 Participant changes for Global Settlements

Transmission Network to Distribution Network Connection Points have the Financial Responsible Market Participant (FRMP) Participant ID changed to GLOPOOL.

6.4.3 Distribution network connection point examples

Local Retailers no longer receive boundary Metering Data.

Distribution Network

| Street Lighting | Generator | Non-Registered Embedded Generator | Spot Market Customer | Retail Customer | Generation & Load | Non Contestable Unmetered Load |

```
NMI = TD
NMI Class = BULK
FRMP = GLOPOOL
LR = POOL%
LNSP = TNSP
NSP2 = DNSP
TNI = TNI% (WXYZ)
Aggregate = Y
```

```
NMI = DL
NMI Class = LARGE/SMALL
FRMP = Retailer%
LR = GLOPOOL
LNSP = DNSP (1)
NSP2 =
TNI = TNI% (WXYZ)
Aggregate = Y
```

```
NMI = DG
NMI Class = GENERATR
FRMP = GenPartId%
LR = GLOPOOL
LNSP = DNSP (1)
NSP2 =
TNI = TNI% (WXYZ)
Aggregate = N
```

```
NMI = DS
NMI Class = NREG
FRMP = PartId%SGA
LR = GLOPOOL
LNSP = DNSP (1)
NSP2 =
TNI = TNI% (WXYZ)
Aggregate = Y
```

```
NMI = DM
NMI Class = DWHOLSAL
FRMP = CustId%
LR = GLOPOOL
LNSP = DNSP (1)
NSP2 =
TNI = TNI% (WXYZ)
Aggregate = Y
```

```
NMI = DC
NMI Class = LARGE/SMALL
FRMP = Retailer%
LR = GLOPOOL
LNSP = DNSP (1)
NSP2 =
TNI = TNI% (WXYZ)
Aggregate = Y
```

```
NMI = DB (1)
NMI Class = GENERATR
FRMP = GenPartId%
NMI = DB (2)
NMI Class = DWHOLSAL
FRMP = CustId%
LR = GLOPOOL
LNSP = DNSP (1)
NSP2 =
TNI = TNI% (WXYZ)
Aggregate = N
```

```
NMI = DU
NMI Class = NCONUML
FRMP = Former LR (1)
LR = GLOPOOL
LNSP = DNSP (1)
NSP2 =
TNI = TNI% (WXYZ)
Aggregate = Y
```

Cross Boundary   Cross Boundary

6.4.4 Changes for distribution network connected points

A new Non-registered Embedded Generator code of NREG is included to separate registered and non-registered Generators.

A new Distribution Network wholesale code of DWHOLSAL is introduced to distinguish Distribution Network Connection Points purchasing from the Spot Market from the Transmission Network Connection Points.

A new Non-Contestable Unmetered Load code of NCONUML is introduced.

6.4.4.1 Participant changes for Global Settlements

All Distribution Network Connection Points have the Local Retailer (LR) Participant ID changed to GLOPOOL where the Connection Point is not an Embedded Network Child.

6.4.5 Metered distribution network to adjoining distribution network connection point examples

NMI = DD
NMI Class = XBOUNDRY
FRMP = GLOPOOL
LR = GLOPOOL

LNSP = DNSP 1
NSP2 = DNSP 3
TNI = TNI% (WXYZ)
TNI2 = TNI% (WABC)
Aggregate = Y

**High Voltage
Distribution to Distribution Network
Metered**

Street Lighting	Generator	Non-Registered Embedded Generator	Customer	Generation & Load	Non Contestable Unmetered Load
NMI = DL NMI Class = LARGE/SMALL FRMP = Retailer% LR = GLOPOOL LNSP = DNSP (3) NSP2 = TNI = TNI% (WABC) Aggregate = Y	NMI = DG NMI Class = GENERATR FRMP = GenPartId% LR = GLOPOOL LNSP = DNSP (3) NSP2 = TNI = TNI% (WABC) Aggregate = N	NMI = DS NMI Class = NREG FRMP = PartId%SGA LR = GLOPOOL LNSP = DNSP (3) NSP2 = TNI = TNI% (WABC) Aggregate = Y	NMI = DC NMI Class = LARGE/SMALL FRMP = Retailer% LR = GLOPOOL LNSP = DNSP (3) NSP2 = TNI = TNI% (WABC) Aggregate = Y	NMI = DB (1) NMI Class = GENERATR FRMP = GenPartId% NMI = DB (2) NMI Class = DWHOLSAL FRMP = CustId% LR = GLOPOOL LNSP = DNSP (3) NSP2 = TNI = TNI% (WABC) Aggregate = N	NMI = DU NMI Class = NCONUML FRMP = Former LR (3) LR = GLOPOOL LNSP = DNSP (3) NSP2 = TNI = TNI% (WABC) Aggregate = Y

6.4.6 Changes for metered cross-boundary connection points:

Distribution Network to adjacent Distribution Network Metered Connection Points

A new cross-boundary code of XBOUNDRY is introduced to differentiate them from WHOLESAL customer connections.

A second TNI code is assigned to record the receipt Distribution Network TNI code.

Participants must supply the cross-boundary Connection Point for LV connections, where the receiving Distribution Network load can be altered (for example new Connection Points) without the supplying Distribution Network knowledge.

6.4.6.1 Participant changes for global Settlements

The Local Retailer (LR) and Financial Responsible Market Participant (FRMP) are changed to GLOPOOL for all cross-boundary Connection Points.

All Distribution Network Connection Points have the Local Retailer (LR) Participant ID changed to GLOPOOL where the Connection Point is not an Embedded Network Child.

6.4.7 Unmetered distribution network to adjoining distribution network connection point examples.
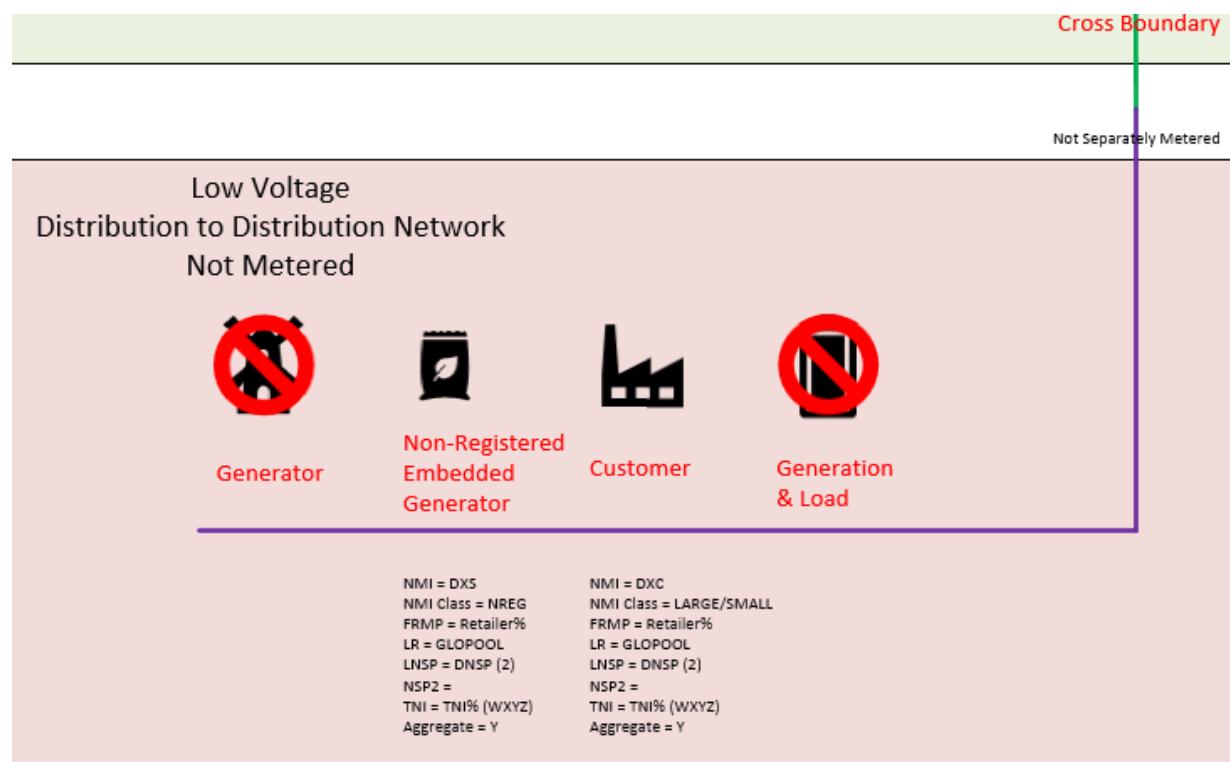
6.4.8 Changes for unmetered cross-boundary connected points

TNI codes for each of the end-use Connection Points in the receiving Local Area **must** have the Transmission Network supplying TNI code.

Generator and battery connections are not accepted without boundary Metering.

6.4.8.1 Participant changes for Global Settlements

All Distribution Network Connection Points have the Local Retailer (LR) Participant ID changed to GLOPOOL where the Connection Point is not an Embedded Network Child.

6.5 Summary of changes for UFE

6.5.1 Prior to 5-minute settlements

1. All Tier 1 NMIs must have an active NMI Datastream in MSATS.

2. Metering Data is provided to AEMO for all Tier 1 NMIs.

3. All Non-Contestable Unmetered Loads are registered in MSATS.

4. Metering Data is provided to AEMO for all Non-Contestable Unmetered Loads.

5. NMI Classifications are updated for existing Connection Points.

6. Distribution Network to Distribution Network cross-boundary supplies are Metered.

6.5.2 Global Settlements go-live

1. The FRMP is updated on Transmission Network to Distribution Network and Distribution Network to Distribution Network Connection Points.

2. The Local Retailer is updated on all Distribution Network connected points, excluding Embedded Network Child Connection Points.

3. Local Retailers no longer receive Local Area Metering Data.

7   Shared Isolation Point Flag

7.1   CATS_NMI_DATA

So LNSPs can populate the presence of shared isolation points, a new field is available as a NMI level NMI Standing Data attribute in the **CATS_NMI_DATA** table.

NMI Standing Data is a subset of CATS Standing Data.

7.2   Data format

Data type	String
Maximum length	1
Default value	Null

7.3   Proposed method for field update

Field	type	Requirement	Updater	Method	Effective	Due
Shared Isolation Point Flag	New	Mandatory	LNSP	Blind Update Tool	1 May 2022	1 May 2023

For phase 2 proposed field update methods, see **Proposed Method for Field Updates – Phase 2** on page 139.

7.4 Enumeration values

Value	Indicates
I	The metering installation is Isolated independently but still part of a shared fuse arrangement
N	No shared fuse arrangement is present
U	The presence of a shared fuse arrangement is unknown
Y	A shared fuse arrangement is present

7.5 Reports

Participants can view the Shared Isolation Point Flag using the following existing services:

1. NMI Discovery

2. CATS Reports (C1, C4, C7)

3. MSATS Snapshot Report

7.6 CATS change requests

To create and maintain the Shared Isolation Point Flag, participants can use the existing CR2000 and CR5000 series Change Requests.

The existing CATS Change Request process is unchanged. For details about the Change Request process, see Technical Guide to MSATS > Change Requests

The following roles can set and maintain the Shared Isolation Point Flag by Change Reason Code:

Event	Change Reason Code	Initiating Role	Trigger	Description
Create NMI	2000	New LNSP	Market Participant process for establishing the initial set of information for a connection point	Create NMI
	2001	New LNSP		
	2520	New ENM		Create NMI, MDM Datastream & Metering Installation Details – Child NMI
	2521	New ENM		
	2020	New ENM		Create NMI Details – Child
	2021	New ENM		
	2500	New LNSP		Create NMI, NMI Datastream & metering installation details
	2501	New LNSP		
Maintain NMI	5050	Current LNSP	Market Participant and AEMO process to change the information for a connection point	Change NMI Details
	5051	Current LNSP		
	5001	Current LNSP		Backdate NMI Start Date
	5021	Current ENM		
	5060	Current ENM		Change NMI Details – Child
	5061	Current ENM		
	5100	AEMO		

Event	Change Reason Code	Initiating Role	Trigger	Description
	5101	AEMO		Change NMI Details (AEMO only)

7.7 Change request (5000 series) example

```
<?xml version="1.0"?>
<ase:aseXML xmlns:ase="urn:aseXML:r35"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r35
http://www.nemmco.com.au/aseXML/schemas/r35/aseXML_r35.xsd">
  <Header>
    <From description="PARTICIPANTID PTY LTD">PARTICIPANTID</From>
    <To description="AEMO">NEMMCO</To>
    <MessageID>PARTICIPANTID-MSG-202111191519</MessageID>
    <MessageDate>2021-11-18T18:28:52.143+10:00</MessageDate>
    <TransactionGroup>CATS</TransactionGroup>
    <Priority>Medium</Priority>
    <SecurityContext>PARTICIPANTID</SecurityContext>
    <Market>NEM</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="PARTICIPANTID-TNS-202111191519"
transactionDate="2021-11-18T18:28:52.143+10:00">
      <CATSChangeRequest version="r29">
        <ChangeReasonCode>5051</ChangeReasonCode>
        <ProposedDate>2021-11-17</ProposedDate>
        <NMIStandingData xsi:type="ase:ElectricityStandingData"
version="r35">
          <NMI checksum="2">4001001774</NMI>
          <MasterData>
            <SharedIsolationPointFlag>Y</SharedIsolationPointFlag>
          </MasterData>
        </NMIStandingData>
      </CATSChangeRequest>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

7.8 CR validation

For inbound CRs, the Shared Isolation Point Flag is mandatory for the following Change Reason Codes.

For Inbound CRs with Change Reason Codes not requiring the mandatory Shared Isolation Point Flag the value can be null.

Event	Change Reason Code	Description
Create NMI	2000	Create NMI
	2001	
	2520	Create NMI, MDM Datastream & Metering Installation Details – Child NMI
	2521	
	2020	Create NMI Details – Child
	2021	
	2500	Create NMI, NMI Datastream & metering installation details
	2501	

7.9 CR validation errors

For Inbound CRs with Change Reason Codes requiring the mandatory Shared Isolation Point Flag and it is not supplied, the CATS Change Response has the following details:

Event Severity	Code	RequestId	NMI
Error	(TBC	Corresponding CATSChangeResponse request ID	Corresponding NMI for the raised CATSChangeRequest

For inbound CRs where the value provided for SharedIsolationPointFlag does not match the allowable enumerations (See values in Enumeration on page 39), the CATS Change Response has the following details:

Event Severity	Code	RequestId	NMI
Error	TBC	Corresponding CATSChangeResponse request ID	Corresponding NMI for which the CATSChangeRequest

For these **validation errors**, the CR status moves from Pending Validation (PVAL) to Rejected (REJ) according to existing MSATS CR processing logic. For details about CR status, see **Technical Guide to MSATS** > **Change request lifecycle**.

7.10 CR completion

Before completing a Pending CR, the mandatory Shared Isolation Point Flag is validated for the following Change Reason Codes. As the CR moves from Pending to Completed status, where a mandatory value is not supplied or is not previously populated in the **NMI_DETAILS** table, the CR moves from Pending (PEND) to Rejected (REJ) status according to existing MSATS CR processing logic. For details about CR status, see **Technical Guide to MSATS** > **Change request lifecycle**.

For a Completed (COM) CR2000 and CR5000, the supplied Shared Isolation Point Flag value is stored in the **CATS_NMI_DATA** table.

For Change Reason Codes not requiring the mandatory Shared Isolation Point Flag the value can be null.

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

Event	Change Reason Code	Description
	5100	Change NMI Details (AEMO only)

7.11 CR Status Notification Rules

For the following Change Reason Codes, the existing Change Request Status Notification Rules are applied for the Shared Isolation Point Flag.

Event	Change Reason Code	CR Status 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**

Event	Change Reason Code	CR Status Notification Rule
	5101	**Procedure for Management of WIGS NMIS 9.1.7**

7.12 CR notifications

During the CR Life Cycle when a Change Request Notification is issued with the Shared Isolation Point Flag, it is included under the following aseXML element:

- Parent Element Name: MasterData

- Element Name: SharedIsolationPointFlag

7.13 CATS notification example

```
<?xml version="1.0" ?>
<ase:aseXML xmlns:ase="urn:aseXML:r42"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r42
http://www.nemmco.com.au/aseXML/schemas/r39_p1/aseXML_r42.xsd">
  <Header>
    <From description="Australian Energy Market Operator
Limited">NEMMCO</From>
    <To description="Essential Energy">CNRGYP</To>
    <MessageID>NEMMCO-MSG-1010552645</MessageID>
    <MessageDate>2021-11-19T15:27:08+10:00</MessageDate>
    <TransactionGroup>CATS</TransactionGroup>
    <Priority>Medium</Priority>
    <SecurityContext>NEMMCOBATCH</SecurityContext>
    <Market>NEM</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="NOTF-2183790220" transactionDate="2021-11-
19T15:22:54+10:00" initiatingTransactionID="CNRGYP-TNS-202111191519">
    <CATSNotification version="r29">
        <Role>LNSP</Role>
        <RoleStatus>C</RoleStatus>
<ChangeRequest>
  <Participant>PARTICIPANTID</Participant>
  <RequestID>1232238417</RequestID>
  <ChangeStatusCode>REJ</ChangeStatusCode>
```

```
    <ChangeData>
        <ChangeReasonCode>5051</ChangeReasonCode>
        <ActualChangeDate>2021-11-17</ActualChangeDate>
        <NMIStandingData xsi:type="ase:ElectricityStandingData" version="r36">
            <NMI checksum="2">1234567890</NMI>
            <MasterData>
                <SharedIsolationPointFlag>Y</SharedIsolationPointFlag>
            </MasterData>
        </NMIStandingData>
    </ChangeData>
</ChangeRequest>
<JurisdictionCode>NSW</JurisdictionCode>
<NMIClassificationCode>SMALL</NMIClassificationCode>
</CATSNotification>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

7.14 CATS standing data access rules

The Shared Isolation Point Flag in the NMI Standing Data tables is accessible to the following Roles having a NMI relationship or nominated for a Role for the NMI in a CR in REQ, PEND, or OBJ status.

For details about access rules, see **Technical Guide to MSATS** > **Standing Data Access Rules**.

Jurisdiction	FRMP	LR	LNSP	MDP	MPB	MPC	RP	RoLR	NEMM	NSP2 DRSP
All	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes

7.15 NMI discovery search roles

The Shared Isolation Point Flag in a NMI Discovery Search 2 is accessible by the following roles:

Jurisdiction	FRMP	LR	LNSP	MDP	MPB	MPC	RP	RoLR	NEMM	NSP2 DRSP
All	Yes	No	Yes	No	No	No	Yes	No	Yes	No

7.16 NMI discovery search 2 - obtain standing data

To request NMI Standing Data that includes the Shared Isolation Point Flag element and value, **both** of the following must exist:

1. The role must have a relationship to the NMI according to the Standing Data Access Rules.

2. The Role's Participant ID must have the B2M aseXML CATS schema in the MSATS Web Portal > Participant Schema set to LATEST or CURRENT (aseXML r42).

7.17 **Obtain standing data response**

Where a NMI **has** the Shared Isolation Point Flag value, it is included in the Obtain Standing Data Response under the following aseXML element:

- Parent Element Name: MasterData

- Element Name: SharedIsolationPointFlag

Where a NMI **does not have** a Shared Isolation Point Flag value, the B2M aseXML element is not included.

For participants on the SUPERSEDED (r39_p1, r35, or lower) B2M CATS schema version, MSATS removes the Shared Isolation Point Flag element and adds a comment flagging the removal.

8   MSATS Web Portal

8.1   Shared isolation point flag

For help using the portal, see Guide to MSATS Web Portal.

Participants can use the MSATS Web Portal to submit Change Requests (CRs) to create or update NMI Standing Data with the Shared Isolation Point Flag.

Where NMI Standing Data is displayed on the MSATS Web Portal interface, there are minor updates to include or amend NMI Standing Data attributes.

To see the Shared Isolation Point Flag, participants must have **CATS Standing Data Access rights** for the NMI they are querying.

8.2   NMI discovery search

The screenshots below are early designs and may change for the final release.

The NMI Information menu has the interfaces to identify a specific Connection Point for Settlements, auditing, and NMI Discovery Search.

The existing NMI Discovery interface flow remains unchanged.
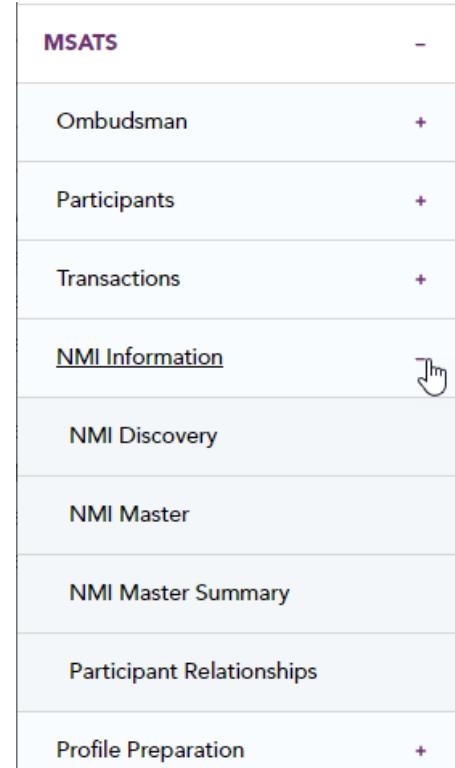
8.2.1 **Obtain standing data – results**

The **Obtain Standing Data - Results** interface is updated to include the Shared Isolation Point Flag under the **General Information** section.

Obtain Standing Data - Results			Participant ID:	**NEMMCO**
			Participant Name:	**Australian Energy Market Operator Limited**

Go to: View Data Streams   View Participant Relationships   View Meter Registers

General Information:

NMI:	6001287470	Jurisdiction:	VIC
Classification Code:	XBOUNDRY	Aggregate Flag:	Y
Embedded Network ID (Parent):		TNI Code:	VKT2
		TNI2 Code:	
Embedded Network ID (Child):		DLF Code:	CLES
Start Date:	7-Jul-2020	End Date:	31-Dec-9999
NMI Status Code:	A	Updated On:	31-Dec-9999
Shared Isolation Point Flag:	N		

Address Information:

Building/Property Name:		Location Descriptor:
Lot Number:		

8.2.2 **Obtain standing data interface flow**
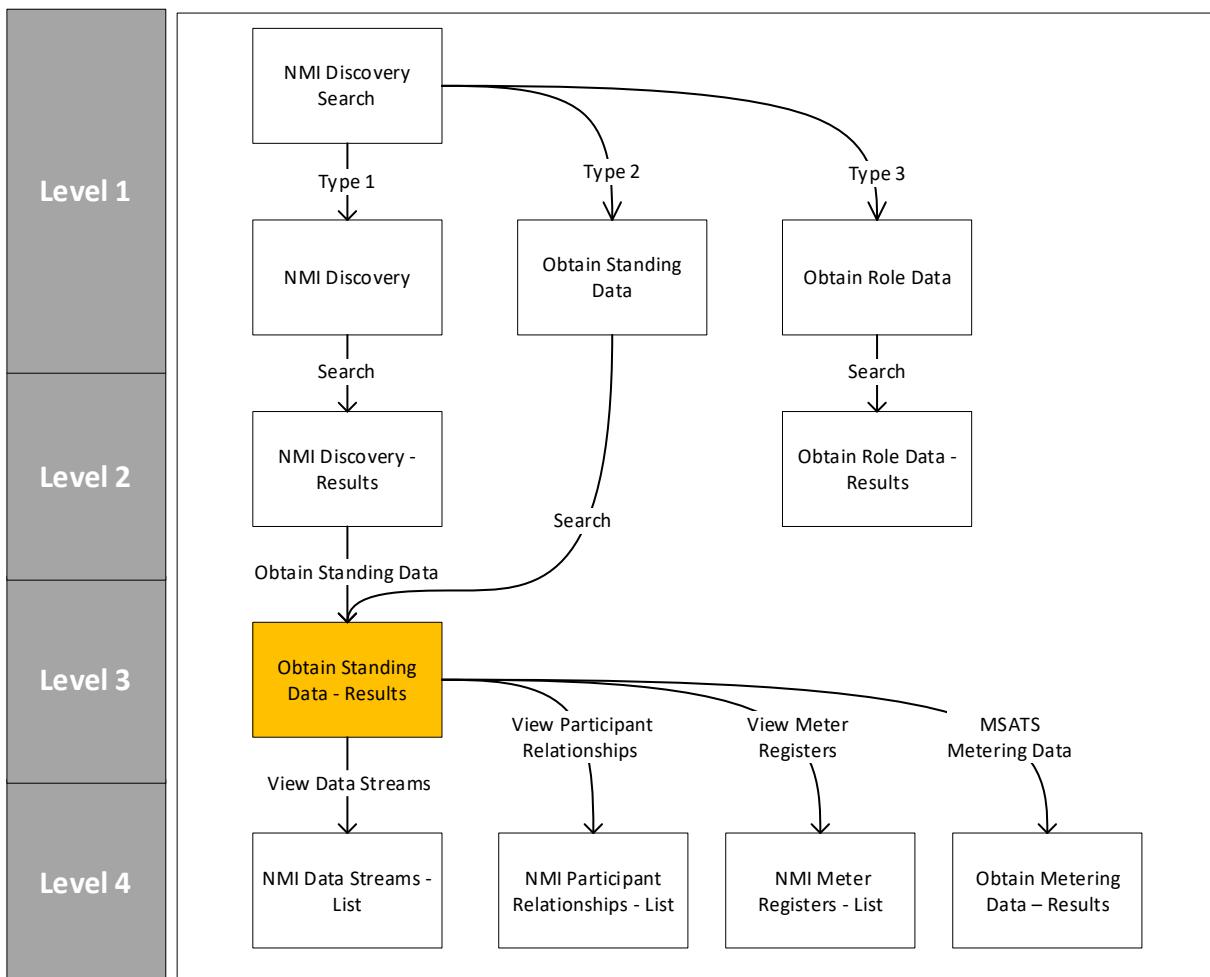
8.2.3 **NMI master - view**

The **NMI Master – View** interface is updated to include the Shared Isolation Point Flag under the **General Information** section.

8.2.4 NMI master – view interface flow
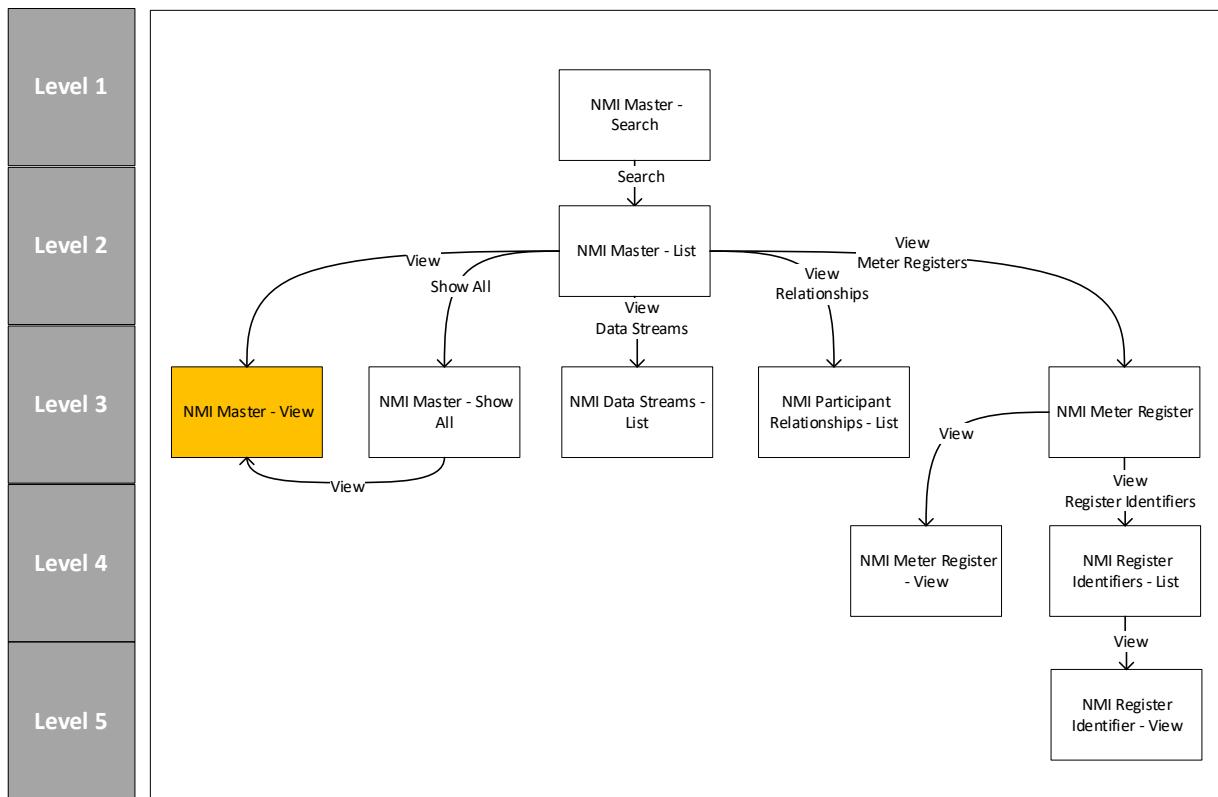
8.2.5 Point in time NMI master summary

The **Point In Time NMI Master Summary** interface is updated to include the Shared Isolation Point Flag under the **General Information** section.

8.2.6 Point in time NMI master summary interface flow
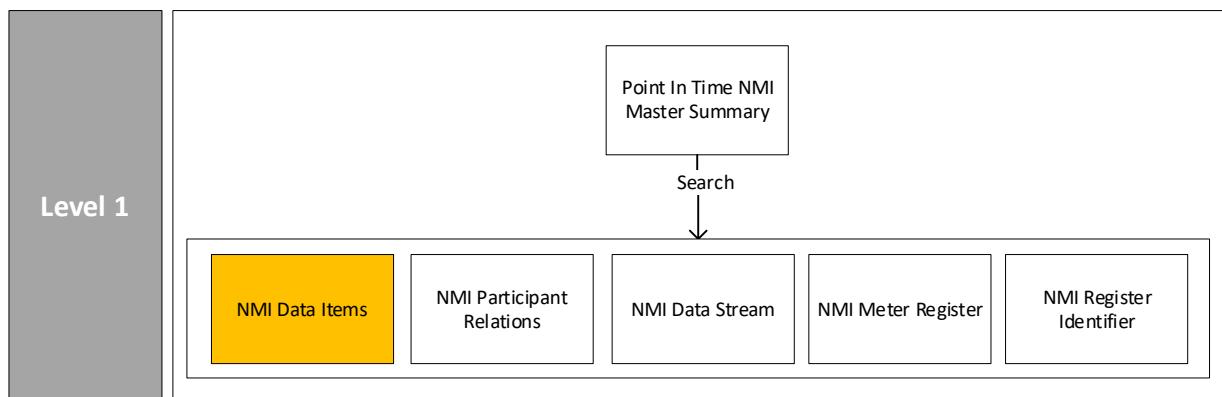
8.3 Transactions – change requests

The Transactions > Change Requests menu has the interface to search, view, and create CRs for the 5 categories of Standing Data, depending on the Change Reason Code:

- Participant Role Relationships

- NMI Standing Data

- NMI Datastream

- NMI Meter Register

- NMI Register Identifier

The existing Transactions > Change Requests interface flow remains unchanged.
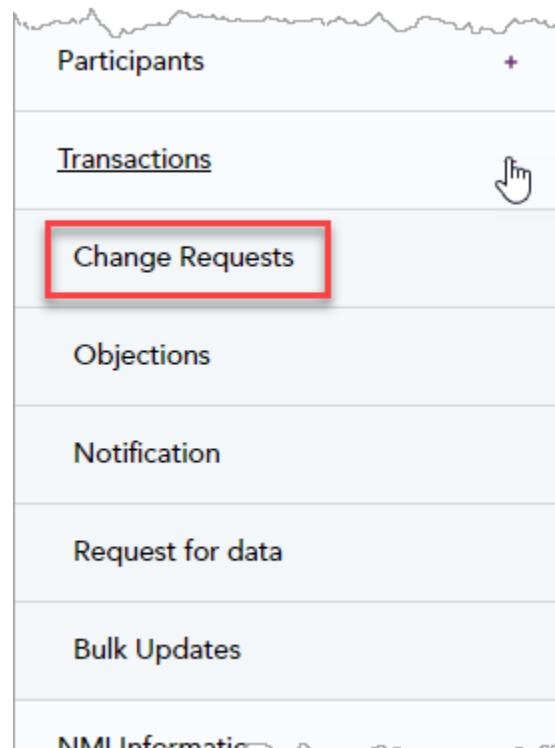
8.3.1 Change requests - summary

The **Change Requests – Summary** interface is updated to include the Shared Isolation Point Flag in the **NMI Standing Data** section.

Change Requests - Summary			Participant ID:	NEMMCO
			Participant Name:	Australian Energy Market Operator Limited

General Information:

Change Request ID:		Change Reason Code:	5100
Change Request Status:		Participant Transaction ID	New009
NMI:	6001287470	Checksum:	8
Proposed Start Date:	9-Jul-2020	Original Transaction Date:	
Actual Change Date:		Actual End Date:	
Related Request ID:			
Read Type Code:		Trans Type Code:	

Participant Role Relationships:

NMI Standing Data:

Jurisdiction Code:		Aggregate Flag:	
DLF Code:		TNI Code:	
		TNI2 Code:	ATLP
NMI Classification Code:		NMI Status Code:	
Embedded Network Parent:		Shared Isolation Point Flag:	N
		Embedded Network Child:	

Address

Building/Proper

8.3.2 Change request interface flow
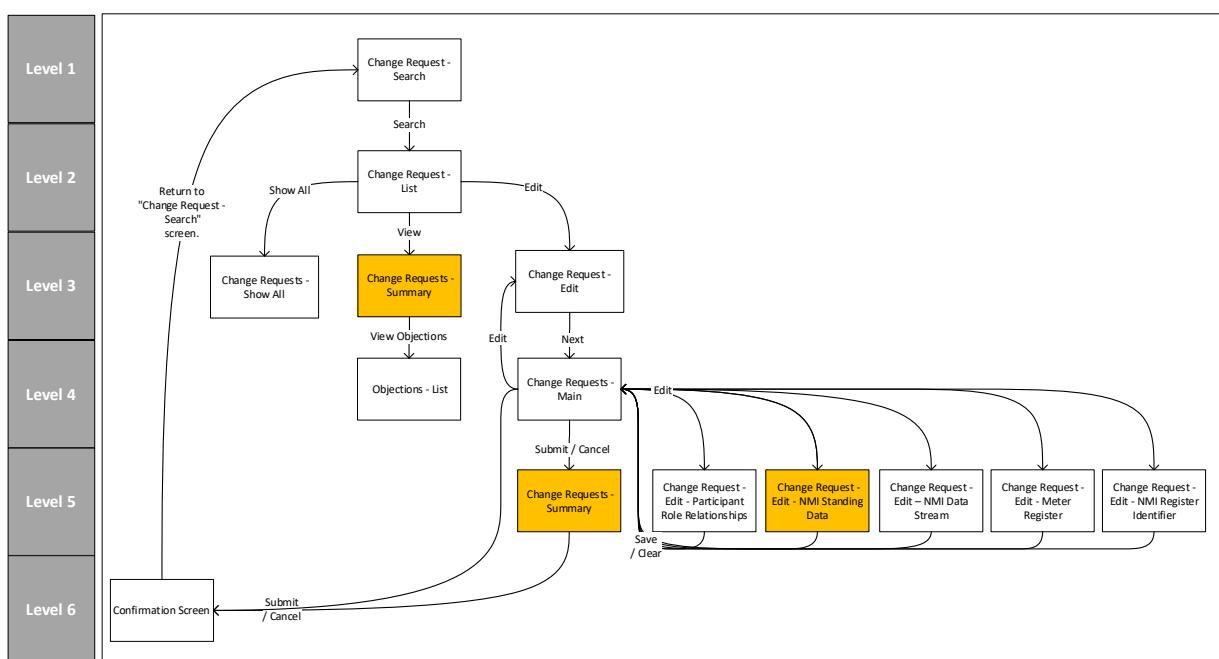
8.3.3 Change Request – new/edit – NMI standing data

The **Change Request – New/Edit – NMI Standing Data** interface is updated to include the Shared Isolation Point Flag and its enumerated list. See values in Enumeration on page 39.

8.3.4 Change Request – new/edit interface flow

9   MSATS Reports

The following reports are updated with the Shared Isolation Point Flag.

To see the Shared Isolation Point Flag, participants must have **CATS Standing Data Access rights** for the NMI they are querying.

9.1   Report response

Where a NMI **has** the Shared Isolation Point Flag value, it is included in the report response under the following aseXML element:

- Parent Element Name: MasterData

- Element Name: SharedIsolationPointFlag

Where a NMI **does not have** a Shared Isolation Point Flag value, the B2M aseXML element is not included.

For participants on the SUPERSEDED (r39_p1, r35, or lower) B2M CATS schema version, MSATS removes the Shared Isolation Point Flag element and adds a comment flagging the removal.

9.2   C1 - Data Replication Resynchronisation Report

Where a NMI has the Shared Isolation Point Flag value, the C1 report displays the value in the following aseXML element for that block:

- Table name: CATS_NMI_DATA

- Replication block: ElectricityNMIMaster

- Row xsi type: ElecticityNMIMasterRow

- Element name: SharedIsolationPointFlag

```
<?xml version="1.0" ?>
```

```
<ase:aseXML xmlns:ase="urn:aseXML:r42"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r42
http://www.nemmco.com.au/aseXML/schemas/r42/aseXML_r42.xsd">
  <Header>
    <From description="Australian Energy Market Operator
Limited">NEMMCO</From>
    <To description="PARTICIPANT Pty Ltd">PARTICIPANTID</To>
    <MessageID>NEMMCO-MSG-879817585</MessageID>
    <MessageDate>2020-08-13T14:53:12+10:00</MessageDate>
    <TransactionGroup>CATS</TransactionGroup>
    <Priority>Medium</Priority>
    <SecurityContext>NEMMCOBATCH</SecurityContext>
    <Market>NEM</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="CATS-879817585" transactionDate="2020-08-
13T14:53:12+10:00" initiatingTransactionID="81979727">
      <ReplicationNotification version="r10">
        <ReplicationParameters>
          <TableName>CATS_NMI_DATA</TableName>
          <CreationFromDate>2020-07-14T00:00:00+10:00</CreationFromDate>
          <CreationToDate>2020-08-13T23:59:59+10:00</CreationToDate>
          <LastSequenceNumber>0</LastSequenceNumber>
          <MaximumRows>200</MaximumRows>
        </ReplicationParameters>
<ReplicationBlock tableName="ElectricityNMIMaster">
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMasterRow">
    <SequenceNumber>104741178</SequenceNumber>
    <CreationDate>2019-10-19T00:29:19+10:00</CreationDate>
    <MaintenanceDate>2020-07-15T16:49:39+10:00</MaintenanceDate>
    <RowStatus>I</RowStatus>
    <FromDate>2019-10-18T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
    <NMI>1234567890</NMI>
    <JurisdictionCode>VIC</JurisdictionCode>
    <NMIClassificationCode>SMALL</NMIClassificationCode>
    <TransmissionNodeIdentifier>TNI</TransmissionNodeIdentifier>
    <DistributionLossFactorCode>DLF</DistributionLossFactorCode>
    <Aggregate>Yes</Aggregate>
    <Status>A</Status>
    <HouseNumber>10</HouseNumber>
    <LotNumber>45</LotNumber>
    <StreetName>PARTICIPANT</StreetName>
    <StreetType>DR</StreetType>
    <SuburbOrPlaceOrLocality>MELBOURNE</SuburbOrPlaceOrLocality>
    <StateOrTerritory>VIC</StateOrTerritory>
    <PostCode>3000</PostCode>
    <DeliveryPointIdentifier>53593300</DeliveryPointIdentifier>
```

```xml
      <CustomerClassificationCode>RESIDENTIAL</CustomerClassificationCode>
      <CustomerThresholdCode>LOW</CustomerThresholdCode>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMasterRow">
      <SequenceNumber>107208619</SequenceNumber>
      <CreationDate>2020-07-15T16:49:39+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2019-10-18T00:00:00+10:00</FromDate>
      <ToDate>2020-06-21T00:00:00+10:00</ToDate>
      <NMI>1234567890</NMI>
      <JurisdictionCode>VIC</JurisdictionCode>
      <NMIClassificationCode>SMALL</NMIClassificationCode>
      <TransmissionNodeIdentifier>TNI</TransmissionNodeIdentifier>
      <DistributionLossFactorCode>DLF</DistributionLossFactorCode>
      <Aggregate>Yes</Aggregate>
      <Status>A</Status>
      <HouseNumber>111</HouseNumber>
      <LotNumber>75</LotNumber>
      <StreetName>PARTICIPANT</StreetName>
      <StreetType>DR</StreetType>
      <SuburbOrPlaceOrLocality>MELBOURNE</SuburbOrPlaceOrLocality>
      <StateOrTerritory>VIC</StateOrTerritory>
      <PostCode>3000</PostCode>
      <DeliveryPointIdentifier>53593322</DeliveryPointIdentifier>
      <CustomerClassificationCode>RESIDENTIAL</CustomerClassificationCode>
      <CustomerThresholdCode>LOW</CustomerThresholdCode>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMasterRow">
      <SequenceNumber>107208620</SequenceNumber>
      <CreationDate>2020-07-15T16:49:39+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2020-06-22T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>1234567890</NMI>
      <JurisdictionCode>VIC</JurisdictionCode>
      <NMIClassificationCode>SMALL</NMIClassificationCode>
      <TransmissionNodeIdentifier>TNI</TransmissionNodeIdentifier>
      <DistributionLossFactorCode>DLF</DistributionLossFactorCode>
      <Aggregate>Yes</Aggregate>
      <Status>A</Status>
      <HouseNumber>1</HouseNumber>
      <LotNumber>6</LotNumber>
      <StreetName>PARTICIPANT</StreetName>
      <StreetType>DR</StreetType>
      <SuburbOrPlaceOrLocality>MELBOURNE</SuburbOrPlaceOrLocality>
      <StateOrTerritory>VIC</StateOrTerritory>
```

```
    <PostCode>3000</PostCode>
    <DeliveryPointIdentifier>53593399</DeliveryPointIdentifier>
    <CustomerClassificationCode>RESIDENTIAL</CustomerClassificationCode>
    <CustomerThresholdCode>LOW</CustomerThresholdCode>
    <TransmissionNodeIdentifier2>NALX</TransmissionNodeIdentifier2>
    <SharedIsolationPointFlag>Y</SharedIsolationPointFlag>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMasterRow">
    <SequenceNumber>107208640</SequenceNumber>
    <CreationDate>2020-08-13T00:11:38+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <FromDate>2020-07-01T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
    <NMI>1234567890</NMI>
    <JurisdictionCode>VIC</JurisdictionCode>
    <NMIClassificationCode>SMALL</NMIClassificationCode>
    <TransmissionNodeIdentifier>TNI</TransmissionNodeIdentifier>
    <DistributionLossFactorCode>DLF</DistributionLossFactorCode>
    <Aggregate>Yes</Aggregate>
    <Status>A</Status>
    <HouseNumber>25</HouseNumber>
    <StreetName>PARTICIPANT</StreetName>
    <StreetType>ST</StreetType>
    <SuburbOrPlaceOrLocality>ROSS</SuburbOrPlaceOrLocality>
    <StateOrTerritory>VIC</StateOrTerritory>
    <PostCode>3099</PostCode>
  </Row>
</ReplicationBlock>
        <Event severity="Information">
          <Code>0</Code>
          <Explanation>Success</Explanation>
        </Event>
      </ReplicationNotification>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

9.3 **C4 - NMI Master Report**

Where a NMI has the Shared Isolation Point Flag value, the C4 report displays the value and adds a comment in the following aseXML element for that block:

- Table name: CATS_NMI_DATA

- Replication block: ElectricityNMIMaster

- Row xsi type: ElecticityNMIMasterRow

- Element name: SharedIsolationPointFlag

```xml
<?xml version="1.0" ?>
<ase:aseXML xmlns:ase="urn:aseXML:r42"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r42
http://www.nemmco.com.au/aseXML/schemas/r42/aseXML_r42.xsd">
  <Header>
    <From description="Australian Energy Market Operator
Limited">NEMMCO</From>
    <To description="Participant">PARTID</To>
    <MessageID>NEMMCO-MSG-688448091</MessageID>
    <MessageDate>2017-10-22T03:47:26+10:00</MessageDate>
    <TransactionGroup>CATS</TransactionGroup>
    <Priority>Medium</Priority>
    <SecurityContext>NEMMCOBATCH</SecurityContext>
    <Market>NEM</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="NOTF-1546833448" transactionDate="2017-10-
22T01:42:25+10:00" initiatingTransactionID="EN6668589-00010">
    <CATSNotification version="r29">
        <Role>FRMP</Role>
        <RoleStatus>N</RoleStatus>
<ChangeRequest>
  <Participant>PARTID</Participant>
  <RequestID>966891424</RequestID>
  <ChangeStatusCode>COM</ChangeStatusCode>
  <ChangeData>
    <ChangeReasonCode>1000</ChangeReasonCode>
    <ActualChangeDate>2017-10-20</ActualChangeDate>
    <MeterReadTypeCode>RR</MeterReadTypeCode>
    <NMIStandingData xsi:type="ase:ElectricityStandingData" version="r42">
        <NMI checksum="3">9999999999</NMI>
        <RoleAssignments>
          <RoleAssignment
              <Party>PARTID</Party>
```

```
                    <Role>FRMP</Role>
                </RoleAssignment>
                <RoleAssignment>
                    <Party>PARTID</Party>
                    <Role>RP</Role>
                </RoleAssignment>
            </RoleAssignments>
        </NMIStandingData>
    </ChangeData>
</ChangeRequest>
<JurisdictionCode>VIC</JurisdictionCode>
<NMIClassificationCode>SMALL</NMIClassificationCode>
<NMIStatus>A</NMIStatus>
<ObjectionEndDate>2017-10-20</ObjectionEndDate>
</CATSNotification>
    </Transaction>
    <Transaction transactionID="NOTF-1546833448A" transactionDate="2017-10-
22T03:47:26+10:00" initiatingTransactionID="EN6668589-00010">
        <ReportResponse version="r10">
          <ReportParameters xsi:type="ase:CATSMasterReportParameters">
            <ReportName>Master</ReportName>
            <FromDate>0001-01-01</FromDate>
            <ToDate>9999-12-31</ToDate>
            <AsAtDate>2017-10-23</AsAtDate>
            <LastSequenceNumber>0</LastSequenceNumber>
            <NMI>9999999999</NMI>
            <Participant>PARTID</Participant>
            <Role>FRMP</Role>
            <ReportType>Detailed</ReportType>
          </ReportParameters>
          <ReportResults xsi:type="ase:ReplicationReportFormat">
<ReplicationBlock tableName="ElectricityNMIMaster">
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMasterRow">
      <SequenceNumber>87035771</SequenceNumber>
      <CreationDate>2016-11-16T02:19:14+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2016-11-15T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <JurisdictionCode>VIC</JurisdictionCode>
      <NMIClassificationCode>SMALL</NMIClassificationCode>
      <TransmissionNodeIdentifier>VKTS</TransmissionNodeIdentifier>
      <DistributionLossFactorCode>KES</DistributionLossFactorCode>
      <Address>
         <StructuredAddress>
            <FlatOrUnit>
                <FlatOrUnitType>F</FlatOrUnitType>
                <FlatOrUnitNumber>12</FlatOrUnitNumber>
```

```
            </FlatOrUnit>
            <House>
                <HouseNumber>125</HouseNumber>
            </House>
            <Street>
                <StreetName>ANDERSON</StreetName>
                <StreetType>RD</StreetType>
            </Street>
        </StructuredAddress>
        <SuburbOrPlaceOrLocality>ALBION</SuburbOrPlaceOrLocality>
        <StateOrTerritory>VIC</StateOrTerritory>
        <PostCode>3020</PostCode>
        <DeliveryPointIdentifier>51314384</DeliveryPointIdentifier>
    </Address>
    <Aggregate>Yes</Aggregate>
    <Status>A</Status>
    <CustomerClassificationCode>RESIDENTIAL</CustomerClassificationCode>
    <CustomerThresholdCode>LOW</CustomerThresholdCode>
        <TransmissionNodeIdentifier2>VSV2</TransmissionNodeIdentifier2>
        <SharedIsolationPointFlag>Y</SharedIsolationPointFlag>
</Row>
</ReplicationBlock>
<ReplicationBlock tableName="ElectricityNMIRoles">
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
        <SequenceNumber>222390876</SequenceNumber>
        <CreationDate>2017-06-10T02:37:27+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2017-03-11T00:00:00+10:00</FromDate>
        <ToDate>2017-06-08T00:00:00+10:00</ToDate>
        <NMI>9999999999</NMI>
        <Party>PARTID</Party>
        <Role>FRMP</Role>
    </Row>
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
        <SequenceNumber>226707251</SequenceNumber>
        <CreationDate>2017-10-22T01:42:25+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2017-10-20T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>9999999999</NMI>
        <Party>PARTID</Party>
        <Role>FRMP</Role>
    </Row>
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
        <SequenceNumber>7408150</SequenceNumber>
```

```
      <CreationDate>2002-01-09T03:09:07+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>1998-06-05T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Party>PARTID</Party>
      <Role>LNSP</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>12609206</SequenceNumber>
      <CreationDate>2002-01-09T03:20:21+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>1998-06-05T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Party>PARTID</Party>
      <Role>LR</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>208204161</SequenceNumber>
      <CreationDate>2016-04-12T00:36:25+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2016-03-24T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Party>PARTID</Party>
      <Role>MDP</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>208204163</SequenceNumber>
      <CreationDate>2016-04-12T00:36:25+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2016-03-24T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Party>PARTID</Party>
      <Role>MPB</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>208204165</SequenceNumber>
      <CreationDate>2016-04-12T00:36:25+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
```

```
      <RowStatus>A</RowStatus>
      <FromDate>2016-03-24T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Party>PARTID</Party>
      <Role>MPC</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>3318906</SequenceNumber>
      <CreationDate>2002-01-09T02:57:25+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>1998-06-05T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Party>PARTID</Party>
      <Role>ROLR</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>222390878</SequenceNumber>
      <CreationDate>2017-06-10T02:37:27+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2017-03-11T00:00:00+10:00</FromDate>
      <ToDate>2017-06-08T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Party>PARTID</Party>
      <Role>RP</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>226707253</SequenceNumber>
      <CreationDate>2017-10-22T01:42:25+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2017-10-20T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Party>PARTID</Party>
      <Role>RP</Role>
   </Row>
</ReplicationBlock>
<ReplicationBlock tableName="ElectricityNMIDataStreams">
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIDataStreamRow">
      <SequenceNumber>180802016</SequenceNumber>
      <CreationDate>2016-04-12T00:36:25+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
```

```xml
      <RowStatus>A</RowStatus>
      <FromDate>2016-03-24T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Suffix>11</Suffix>
      <ProfileName>NSLP</ProfileName>
      <AveragedDailyLoad>11</AveragedDailyLoad>
      <DataStreamType>Consumption</DataStreamType>
      <Status>I</Status>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIDataStreamRow">
      <SequenceNumber>191969603</SequenceNumber>
      <CreationDate>2016-11-17T01:00:56+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2016-11-15T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <Suffix>N1</Suffix>
      <ProfileName>NOPROF</ProfileName>
      <AveragedDailyLoad>11</AveragedDailyLoad>
      <DataStreamType>Interval</DataStreamType>
      <Status>A</Status>
   </Row>
</ReplicationBlock>
<ReplicationBlock tableName="ElectricityNMIMeters">
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMeterRow">
      <SequenceNumber>75977871</SequenceNumber>
      <CreationDate>2016-04-12T00:36:25+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2016-03-24T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>9999999999</NMI>
      <SerialNumber>839655</SerialNumber>
      <NextScheduledReadDate>2016-05-19</NextScheduledReadDate>
      <Location>Porch</Location>
      <InstallationTypeCode>BASIC</InstallationTypeCode>
      <Route>57601</Route>
      <Manufacturer>Warburton Frank</Manufacturer>
      <Model>019/5D1R</Model>
      <Constant>1</Constant>
      <MeasurementType>KWH</MeasurementType>
      <Status>R</Status>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMeterRow">
      <SequenceNumber>75988172</SequenceNumber>
```

```
    <CreationDate>2016-04-13T01:46:42+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <FromDate>2016-03-24T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
    <NMI>9999999999</NMI>
    <SerialNumber>A9871829</SerialNumber>
    <NextScheduledReadDate>2017-11-14</NextScheduledReadDate>
    <InstallationTypeCode>MRIM</InstallationTypeCode>
    <Route>AMI57</Route>
    <Manufacturer>Landis and Gyr</Manufacturer>
    <Model>10ML3/011</Model>
    <Constant>.001</Constant>
    <ReadTypeCode>RWD</ReadTypeCode>
    <Status>C</Status>
  </Row>
</ReplicationBlock>
<ReplicationBlock tableName="ElectricityNMIRegisterConfiguration">
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMeterRegisterRow">
    <SequenceNumber>97312134</SequenceNumber>
    <CreationDate>2016-04-12T00:36:25+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <FromDate>2016-03-24T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
    <NMI>9999999999</NMI>
    <SerialNumber>839655</SerialNumber>
    <RegisterID>1</RegisterID>
    <NetworkTariffCode>D1</NetworkTariffCode>
    <UnitOfMeasure>KWH</UnitOfMeasure>
    <TimeOfDay>ENGY</TimeOfDay>
    <Multiplier>1</Multiplier>
    <DialFormat>5</DialFormat>
    <Suffix>11</Suffix>
    <ControlledLoad>N</ControlledLoad>
    <ConsumptionType>Cumulative</ConsumptionType>
    <Status>R</Status>
  </Row>
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMeterRegisterRow">
    <SequenceNumber>97329563</SequenceNumber>
    <CreationDate>2016-04-13T01:46:42+10:00</CreationDate>
    <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
    <RowStatus>A</RowStatus>
    <FromDate>2016-03-24T00:00:00+10:00</FromDate>
    <ToDate>9999-12-31T00:00:00+10:00</ToDate>
    <NMI>9999999999</NMI>
    <SerialNumber>A9871829</SerialNumber>
    <RegisterID>E1</RegisterID>
```

```
        <NetworkTariffCode>D1</NetworkTariffCode>
        <UnitOfMeasure>KWH</UnitOfMeasure>
        <TimeOfDay>INTERVAL</TimeOfDay>
        <Multiplier>1</Multiplier>
        <DialFormat>6.3</DialFormat>
        <Suffix>E1</Suffix>
        <ControlledLoad>N</ControlledLoad>
        <ConsumptionType>Actual</ConsumptionType>
      <Status>C</Status>
    </Row>
</ReplicationBlock>
        </ReportResults>
        <Event severity="Information">
          <Code>0</Code>
          <Explanation>Success</Explanation>
        </Event>
      </ReportResponse>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

9.4   C7 - New Participant Data Access Report

```
<?xml version="1.0" ?>
<ase:aseXML xmlns:ase="urn:aseXML:r42"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r42
http://www.nemmco.com.au/aseXML/schemas/r42/aseXML_r42.xsd">
  <Header>
    <From description="Australian Energy Market Operator
Limited">NEMMCO</From>
    <To description="Participant Pty Ltd">PARTICIPANTID</To>
    <MessageID>NEMMCO-MSG-879817665</MessageID>
    <MessageDate>2020-08-13T17:29:54+10:00</MessageDate>
    <TransactionGroup>CATS</TransactionGroup>
    <Priority>Medium</Priority>
    <SecurityContext>NEMMCOBATCH</SecurityContext>
    <Market>NEM</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="CATS-879817665" transactionDate="2020-08-
13T17:29:54+10:00" initiatingTransactionID="81979735">
      <ReportResponse version="r42">
```

```xml
        <ReportParameters
xsi:type="ase:CATSNewParticipantAccessReportParameters">
          <ReportName>NewParticipantAccess</ReportName>
          <RequestID>1139649798</RequestID>
        </ReportParameters>
        <ReportResults xsi:type="ase:CATSNewParticipantAccessReportFormat">
<NMIStandingData xsi:type = "ase:ElectricityStandingData"  version="r36">
<NMI>1234567890</NMI>

<MasterData>
  <JurisdictionCode>VIC</JurisdictionCode>
  <TransmissionNodeIdentifier>TNI</TransmissionNodeIdentifier>
  <DistributionLossFactorCode>DLF</DistributionLossFactorCode>
  <Address>
    <StructuredAddress>
      <FlatOrUnit>
        <FlatOrUnitType>U</FlatOrUnitType>
        <FlatOrUnitNumber>4</FlatOrUnitNumber>
      </FlatOrUnit>
      <House>
        <HouseNumber>1</HouseNumber>
      </House>
      <Street>
        <StreetName>PARTICIPANT</StreetName>
        <StreetType>ST</StreetType>
      </Street>
    </StructuredAddress>
    <SuburbOrPlaceOrLocality>MELBOURNE</SuburbOrPlaceOrLocality>
    <StateOrTerritory>VIC</StateOrTerritory>
    <PostCode>3100</PostCode>
  </Address>
  <Status>A</Status>
  <CustomerClassificationCode>RESIDENTIAL</CustomerClassificationCode>
  <TransmissionNodeIdentifier2>VSV2</TransmissionNodeIdentifier2>
  <SharedIsolationPointFlag>Y</SharedIsolationPointFlag>
</MasterData>
<RoleAssignments>
  <RoleAssignment>
    <Party>PARTY</Party>
    <Role>LNSP</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>PARTY</Party>
    <Role>FRMP</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>PARTY</Party>
    <Role>MDP</Role>
  </RoleAssignment>
  <RoleAssignment
```

```xml
    <Party>PARTY</Party>
    <Role>MPB</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>PARTY</Party>
    <Role>MPC</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>PARTY</Party>
    <Role>RP</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>PARTY</Party>
    <Role>LR</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>PARTY</Party>
    <Role>ROLR</Role>
  </RoleAssignment>
</RoleAssignments>
<DataStreams>
  <DataStream>
    <Suffix>11</Suffix>
    <AveragedDailyLoad>11</AveragedDailyLoad>
    <DataStreamType>Consumption</DataStreamType>
    <Status>I</Status>
  </DataStream>
  <DataStream>
    <Suffix>E1</Suffix>
    <AveragedDailyLoad>45</AveragedDailyLoad>
    <DataStreamType>Interval</DataStreamType>
    <Status>A</Status>
  </DataStream>
  <DataStream>
    <Suffix>N1</Suffix>
    <AveragedDailyLoad>8</AveragedDailyLoad>
    <DataStreamType>Interval</DataStreamType>
    <Status>A</Status>
  </DataStream>
</DataStreams>
<MeterRegister>
  <Meter>
    <SerialNumber>0769659</SerialNumber>
    <NextScheduledReadDate>2020-06-22</NextScheduledReadDate>
    <InstallationTypeCode>MRIM</InstallationTypeCode>
    <Manufacturer>PRI01</Manufacturer>
    <Model>E1E100-031</Model>
    <Status>C</Status>
  </Meter>
  <Meter>
```

```
    <SerialNumber>0769659</SerialNumber>
    <RegisterConfiguration>
      <Register>
        <RegisterID>E1</RegisterID>
        <NetworkTariffCode>LVS1R</NetworkTariffCode>
        <UnitOfMeasure>KWH</UnitOfMeasure>
        <TimeOfDay>INTERVAL</TimeOfDay>
        <Multiplier>1</Multiplier>
        <Status>C</Status>
      </Register>
    </RegisterConfiguration>
  </Meter>
</MeterRegister>
</NMIStandingData>
        </ReportResults>
        <Event severity="Information">
          <Code>0</Code>
          <Explanation>Success</Explanation>
        </Event>
      </ReportResponse>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

10 FAQs

10.1 Availability

10.1.1 When is GS capability available?

Global Settlement changes (this technical specification **MSATS Release 47.1)** are available in:

- Pre-production: Monday 28 March 2022.

- Production: Sunday 01 May 2022

For details, see **GS functionalities** on page 13.

10.1.2 When are MSDR changes available?

- **MSDR phase 1**: **1 May 2022**: Shared Isolation Point Flag for MCPI (this technical specification **MSATS Release 47.1**).

- **MSDR phase 2**: **7 Nov 2022**: Implementation of new, amended, and removed fields. We will detail these changes around May 2020 in **MSATS 48.0 Technical Specification**.

10.1.3 What time do the procedures become effective?

Procedures become effective at midnight the day before production. For details, see **Proposed timeline Error! Bookmark not defined.**.

10.1.4 Where can I find technical specifications?

AEMO's website > **IT change and release management** > Release schedules.

10.2   Shared isolation point flag

10.2.1 What will the shared isolation point flag data be used for?

The Shared Isolation Point Flag supports the implementation of the MCPI final rule. This Rule provides certainty of installation time frames for customers with shared fusing.

10.2.2 Can we have a time frame of when each LNSP will update the shared isolation point flag?

To help support the planning of associated transitional activities, AEMO has proposed monitoring the planning template to track the completion of the SIPF Standing Data updates by LNSPs. See the attached template in the **Updated MSDR FG slide pack and proposed SIPF tracking template** email sent Monday 24 January 2022 15:22.

10.2.3 Can we populate the shared isolation point flag for existing NMIs after 1 May 2022?

It is worked through as part of the transition, but you can populate it when you raise a CR5xxx after go live or using the Blind Update Tool when it becomes available.

10.2.4 Are there new error codes?

There is a new error code (TBC) for CR validation for the Shared Isolation Point Flag. For details, see **CR validation errors**

10.2.5 What is in a C4 report post-1 May 2022 for the shared isolation point flag?

The C4 reflects data in MSATS based on the role a participant holds against a NMI that is configured for publication.

10.2.6 Can AEMO update the shared isolation point flag for existing NMIs using a script?

The next focus group will go into detail about the Shared Isolation Point Flag and the options for updating.

10.3 aseXML r42 schema

10.3.1 What does latest, current, and superseded mean?

For details, see **Schema versions** on page 20.

10.3.2 How do I upgrade my aseXML schema?

For help, see **Transition for shared isolation point flag** on page 21 and **Guide To Transition of aseXML**.

10.3.3 Can I set, maintain, or view the shared isolation point flag if I haven't upgraded to r42?

You cannot set or maintain the Shared Isolation Point Flag, but you can view it in the MSATS Web Portal.

10.3.4 What happens if I submit a hazard, location, or locationdescriptor field that is too long before November?

AEMO previously advised they will trim these fields. Trimming is to be confirmed or if AEMO will reject the longer field.

For details, see **Hazard, location, and Location Descriptor** on page 25.

10.3.5 If rejected, do participants need to resubmit?

Yes

10.3.6 What happens if enumerated values are required but not available in r42?

Some fields are required for procedures but not required for the aseXML schema. These fields are validated on the MSATS side.

If required AEMO can include new enumerations through the ERCF process.

10.3.7 From 7 November 2022, is validation moving to the schema as well as MSATS?

- aseXML validates the data type and data size.

- MSATS validates enumeration values.

10.3.8 What happens if I include fields that are removed from the procedures?

You can include fields removed from the procedures (but not from the schema) and your submission is still valid, although these fields are not saved in the MSATS database.

10.3.9 Does the removal of the unstructured Address impact B2B transactions?

The address fields are not physically removed from the schema so you can still use them for B2B until the B2BWG/IEC decide to remove them (if they haven't already).

The B2B Procedures v3.7 effective 7 November 2022, restricts the use of unstructured addresses to only postal addresses.

10.4   Change requests

10.4.1 Why is the Connection Configuration field required in a CR2xxx but optional in a CR5xxx?

On initiation (CR 2000 series), the Connection Configuration field is required because the NMI must have a value.

On a change (CR 5000 series), the field is optional because the NMI may already have a value.

10.4.2 Which CR's are affected by the change?

The CR 2000 series is affected because you need to add the mandatory fields.

10.5   Reports

10.5.1 Will annual C1 request limits change?

There are no limits for C1 Report requests but if there are a lot of requests because everybody is running them at the same time delays will occur.

10.6 CT and VT ratio

10.6.1 Do we enter what the CT and VT ratio is inputting to the meter and not all assets on site?

Yes

10.6.2 Why are the new CT and VT fields not included in the bulk update tool?

The volumes are too low so it's better to do them by Change Request. AEMO can consider including them if participants request it.

10.6.3 What are the complexities around CT and VT data entry?

Each meter has its own CT or VT. Data is at the Meter level so this should reduce any complexities.

10.6.4 If there are various CT and VT accuracy levels, which one do we use?

The basic NER data.

10.7   Blind update tool

10.7.1 Why is there a compliance delay?

The compliance date was pushed out along with the date change. If participants are interested, AEMO can discuss shortening the compliance date.

10.7.2 When is the blind update tool available?

To be confirmed in **MSATS 47.2 (TBC) Technical Specification** for initial publication early February 2022.

10.7.3 When do we get blind update details?

In the **MSATS 47.2 (TBC) Technical Specification** for initial publication early February 2022.

10.7.4 Will the blind update tool be available in pre-production?

Yes

10.7.5 Is there a validation matrix?

AEMO will provide a matrix for the validation occurring at each effective date, for each of the new or amended fields (TBC).

10.7.6 Can I use the blind update tool to update existing fields?

No, you use Change Requests to update existing fields.

10.7.7 How do we know when a blind update is made?

For the party submitting the BUT Payload, they can download the submission response with the status of the update.

For other parties having a relationship with the NMI, they can see the modified fields in a C1 report, C4 report, or NMI Discovery search (API, file, or web interface).

There won't be specific indication the data was altered by BUT.

10.7.8 Do I receive a notification if AEMO make an update?

AEMO can make updates using a script or BUT. In either case participants are not notified of the change.

Participants having a relationship with the NMI can see the modified fields in a C1 report, C4 report, or NMI Discovery search (API, file, or web interface).

10.7.9 Can I use the blind update tool for NMIs identified prior to 1 May 2022?

Yes

10.7.10 Is U the default shared Isolation point flag value?

To be confirmed.

10.7.11 How many bulk updates can I request annually before costs are incurred?

There is no limit to using the Blind Update Tool but the annual Snapshot report limit of 2 reports per year applies before costs are incurred.

10.7.12 Is new data from a blind update available in a C1 report?

Yes. Best to order the following day to ensure the overnight processing is complete. There is no indication in the C1 report that data is updated by BUT. No timestamps on records are changed during BUT processing.

10.7.13 Can each LNSP set their own update options?

The owner of the Blind Update Submission has control over the data in the file, for example: Unknown, No, etc.

11 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.

11.1 Key consideration

The key is transitioning your B2M electricity aseXML schema to r42 to receive the new Shared Isolation Point Flag details.

11.2 Upgrade options

11.2.1 Option 1

Update local processes and technical interfaces to suit the changes.

11.2.2 Option 2

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

11.3 Risks

If you are on B2M electricity aseXML schema r35 it is no longer supported by AEMO.

11.4   What happens if I do not upgrade?

If you are on B2M electricity aseXML schema r39_p1 or lower you cannot update, view, or receive the Shared Isolation Point Flag details.

12 Terms

12.1 Rules and procedure terms

You can find the following terms defined in the **National Electricity Rules (NER)** and the **Retail Electricity Market Procedures – Glossary and Framework**.

Term	Term	Term
AEMO	Datastream	Participant ID
AER	End-use Customers	Pending
Acknowledgement	Field Validation Rules	Pending Validation
Business Day	Initiator	PVAL
Business Document	Market Participant	Registered Participants
Business Signal	Message	REJ
CATS	Meter	Rejected
CATS Standing Data	Meter Register	Retailer
Change Reason Code	Metering Data	Settlements
Change Request	Metering Installation	Transaction
Change Request Status Notification Rules	NEM	Transaction Type Code
Change Request Notification	NMI	Metering Data Provider (MPB)
COM	NMI Discovery	Local Network Service Provider (LNSP)
Completed	NMI Standing Data	
Connection Point	OBJ	
	Objected	

12.2 **Glossary**

You can find a full list of AEMO glossary terms in **Industry Terminology** on AEMO's website.

Abbreviation/Term	Explanation
r42	B2M electricity aseXML schema r42
B2B	Business-to-Business (B2B Browser)
B2M	Business-to-Market (MSATS)
B2M schema	B2M electricity aseXML schema
COAG	Council of Australian Governments
CR	Change Request
CURRENT	The Participant ID can receive the CURRENT aseXML version only
GS	Global Settlement
LATEST	The Participant ID can receive both Current and next future versions so they are always compliant
MCPI	Metering Coordinator Planned Interruptions
MDMT	B2M Meter Data Management Transaction Group
MSDR	MSATS Standing Data Review
MTRD	B2B Meter Data Transaction Group
NMID	NMI Discovery Request Transaction type codes
Release	MSATS 47.10 Technical Specification – May 2022
Release Dates	Pre-production: Monday 28 March 2022 Production: Sunday 01 May 2022
SIPF	Shared Isolation Point Flag
TBC	To be confirmed

13 References

aseXML standards: The standard developed by Australian energy industries to facilitate the exchange of information between energy industry participants using XML.

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

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

Guide To Transition of aseXML: Provides information and guidance for participants transitioning to another B2M or B2B asexml schema.

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

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

Retail Electricity Market Glossary and Framework: assist participants to understand the overall retail electricity framework. Contains terms used in the Retail Electricity Market Procedures and a list of NEM procedures, guidelines, and documents.

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

14 Appendix 1 - Version History

14.1 **v2.00**

- **Metering Coordinator Planned Interruptions (MCPI)** evolving design.

- **MSATS Standing Data Review (MSDR)** evolving design.

- **Shared Isolation Point Flag** evolving design.

- **B2M aseXML schema r42** draft design.

14.2 **V1.00**

Initial publication.

15 Appendix 2 - B2M Electricity aseXML Schema r42 – Phase 2

This schema release r42 affects B2M only.

There are no changes to the B2B aseXML schema for this Release. The current B2B aseXML schema is r41 for MTRD, SORD, MRSR, CUST, SITE, OWNP, OWNX, NPNX and PTPE Transactions.

For help with schema transitions, see **Guide to Transition of aseXML**.

To obtain schemas, guidelines, whitepapers etc, see **aseXML Standards**.

> **We will provide a more detailed description of the B2M schema change as the design progresses. For details about the draft schema, see aseXML r42 draft schema.**

15.1 Schema change details

The B2M aseXML r42 schema change accommodates the **MSATS Standing Data Review (MSDR) project**. The new fields provide an opportunity to ensure MSATS Standing Data reflects the needs of the market by standardising the data and ensuring it is complete, accurate and useful.

15.1.1 Existing aseXML fields and enumerations

Many of the MSDR changes are enforced by the **MSATS Procedures** so only a subset requires changes to the B2M aseXML r42 schema. While some corresponding CATS Standing Data fields are mandatory and have enumerations under the **Standing Data for MSATS Procedure v4.93**, many of these attributes are not defined against the B2M aseXML r42 schema elements. Where there are new enumerations introduced to an existing B2M aseXML schema field, the enforcement of required or mandatory fields is done through the Field Validation Rules, not through the B2M aseXML schema.

15.1.2 **Mandatory and optional fields**

The B2M aseXML r42 schema elements are mandatory or optional. An aseXML file is schema **invalid** for the following reasons:

- If an element is mandatory, and the field is not populated.

- If an element has set enumerations and the populated value does not exactly match the enumeration.

15.2 **Schema change summary**

File name	Change
aseXML_r42	Rename file version to r42
CATSTableReplication_r42	Meter Register table: - **15 new fields** - **New TestResult field**
ClientInformation_r42	New address related fields Update LocationDescriptor length from 30 to 200
Electricity_r42	New simple types Modified existing element data length: MeterHazard, MeterLocation 15 new fields New TestResult field for the Meter Register table to ElectricityMeter
ElectricityMasterStandingData_r42	12 new fields
Events_r42	Registration of r42 release

15.3 Schema impact summary

Below are the potentially impacted files, transactions, and versioned types for r42. To see the changes highlighted in the files, see Schema file changes on page 90.

Table legend

- Modified types: All changed types.

- Derived types: Any types derived from a modified type, therefore modified by default.

- Versioned types affected: All versioned types needing the version attribute updated.

- Transactions potentially affected: All transactions containing a modified type, either directly or via a type substitution.

- Schema files affected: Schema files changed.

Schema file	Modified types	Derived types	Versioned types	Affected transactions
aseXML_r42.xsd	r42			
CATSTableReplication_r42.xsd	ElectricityNMIMeterGroup		ElectricityNMIMasterRow ElectricityNMIMeterRow ElectricityNMIMasterRowBDT ElectricityNMIMeterRowBDT ElectricityCATSChangeRequestNMIMasterRow ElectricityCATSChangeRequestNMIMeterRow	ReplicationNotification CATSBulkDataResponse
ClientInformation_r42.xsd	AustralianPartialAddress AustralianStructuredAddressPartialComponents AustralianAddress AustralianStructuredAddressComponents			
Electricity_r42.xsd	ElectricityMeter			
ElectricityMasterStandingData_r42.xsd	ElectricityNMIMasterGroup ElectricityMasterStandingData	ElectricityCATSChangeRequestNMIMasterRow ElectricityNMIMasterRowBDT ElectricityNMIMasterRow	ElectricityStandingData	NMIStandingDataResponse ReportResponse CATSChangeRequest

Schema file	Modified types	Derived types	Versioned types	Affected transactions
Events_r42.xsd	r42			

15.4 Schema file changes

For more details about required fields and data examples, see **Standing Data for MSATS**.

15.4.1 **aseXML_r42.xsd**

15.4.1.1 Updated file versions

File
ClientInformation_r42.xsd
CATSTableReplication_r42.xsd
Electricity_r42.xsd
ElectricityMasterStandingData_r42

File
Events_r42

15.4.1.2 aseXML

```
<xsd:schema xmlns="urn:aseXML:r42" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" targetNamespace="urn:aseXML:r42" version="r42"
xsi:schemaLocation="urn:aseXML:r42 aseXML_r42.xsd">
<xsd:include schemaLocation="ClientInformation_r42.xsd">
<xsd:include schemaLocation="CATSTableReplication_r42.xsd"/>
<xsd:include schemaLocation="Electricity_r42.xsd"/>
<xsd:include schemaLocation="ElectricityMasterStandingData_r42.xsd"/>
<xsd:include schemaLocation="Events_r42.xsd">
```

15.4.2 CATSTableReplication_r42.xsd

15.4.2.1 Updated version numbers

Field	Path	version
ElectricityNMIMasterRow	ElectricityNMIMeterGroup/	r42

Field	Path	version
ElectricityNMIMeterRow	ElectricityNMIMeterGroup/	r42
ElectricityNMIMasterRowBDT	ElectricityNMIMeterGroup/	r42
ElectricityNMIMeterRowBDT	ElectricityNMIMeterGroup/	r42
ElectricityCATSChangeRequestNMIMasterRow	ElectricityNMIMeterGroup/	r42
ElectricityCATSChangeRequestNMIMeterRow	ElectricityNMIMeterGroup/	r42

15.4.2.2 ElectricityNMIMasterRow version

Updated version attribute for ElectricityNMIMasterRow, ElectricityNMIMeterRow, ElectricityNMIMasterRowBDT, ElectricityNMIMeterRowBDT, ElectricityCATSChangeRequestNMIMasterRow, and ElectricityCATSChangeRequestNMIMeterRow.

```
<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>
```

```xml
                        <xsd:element name="NMI" type="NMIBase"/>
                        <xsd:group ref="ElectricityNMIMasterGroup"/>
                    </xsd:sequence>
                    <xsd:attribute name="version" type="r42" use="optional" default="r42"/>
                </xsd:extension>
            </xsd:complexContent>
    </xsd:complexType>
<xsd:complexType name="ElectricityNMIMeterRow">
            <xsd:annotation>
                <xsd:documentation>
Purpose - Row of the Electricity NMI Meter Register table
MSATS Data Model Table - CATS_Meter_Register
Replication Table Name - ElectricityNMIMeters
                </xsd:documentation>
            </xsd:annotation>
            <xsd:complexContent>
                    <xsd:extension base="ReplicationDateRangeRow">
                        <xsd:sequence>
                                <xsd:element name="NMI" type="NMIBase"/>
                                <xsd:group ref="ElectricityNMIMeterGroup"/>
                        </xsd:sequence>
                        <xsd:attribute name="version" type="r42" use="optional" default="r42"/>
                    </xsd:extension>
            </xsd:complexContent>
    </xsd:complexType>
<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="r42" use="optional" default="r42"/>
                    </xsd:extension>
            </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="ElectricityNMIMeterRowBDT">
            <xsd:annotation>
                    <xsd:documentation>
Purpose - Row of the Electricity NMI Meter Standing Data table extended by BDTStatus and Event for Bulk Data
Tool
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:complexContent>
                    <xsd:extension base="ReplicationDateRangeRow">
                            <xsd:sequence>
                                    <xsd:group ref="ElectricityNMIMeterGroup"/>
                                    <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="r42" use="optional" default="r42"/>
                    </xsd:extension>
            </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>
```

```xml
            </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="r42" use="optional" default="r42"/>
                </xsd:extension>
            </xsd:complexContent>
      </xsd:complexType>
<xsd:complexType name="ElectricityCATSChangeRequestNMIMeterRow">
            <xsd:annotation>
                <xsd:documentation>
Purpose - Row of the Electricity CATS Change Request NMI Meter Register table
MSATS Data Model Table - CATS_Inbound_Meter_Register
Replication Table Name - ElectricityCATSChangeRequestNMIMeters
                </xsd:documentation>
            </xsd:annotation>
            <xsd:complexContent>
                <xsd:extension base="ReplicationBaseRow">
                    <xsd:sequence>
                        <xsd:element name="RequestID" type="CATSRequestIdentifier"/>
                        <xsd:group ref="ElectricityNMIMeterGroup"/>
                    </xsd:sequence>
                    <xsd:attribute name="version" type="r42" use="optional" default="r42"/>
                </xsd:extension>
            </xsd:complexContent>
      </xsd:complexType>
```

15.4.2.3   Meter register data new fields

Field	Path	Data type	Required	Provider
CurrentTransformerAccuracyClass	ElectricityNMIMeterGroup/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
CurrentTransformerLocation	ElectricityNMIMeterGroup/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
CurrentTransformerRatioAvailable	ElectricityNMIMeterGroup/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
CurrentTransformerRatioConnected	ElectricityNMIMeterGroup/	xsd:string maxLen = 20 VARCHAR(20)	Yes	MPB
CurrentTransformerTest	ElectricityNMIMeterGroup/	xsd:string maxLen = 20 VARCHAR(20)	Yes	MPB
CurrentTransformerTestDate	ElectricityNMIMeterGroup/	xsd:date dd-mm-yyyy	Yes	MPB
CurrentTransformerType	ElectricityNMIMeterGroup/	xsd:string maxLen = 20 20 VARCHAR(20)	Yes	MPB
GPSCoordinates	ElectricityNMIMeterGroup/	xsd:decimal minIncl = 0 maxIncl = 999.9999999 totdig = 3 fracdig = 7 NUMERIC (s3.7)	Yes	MPB
TestResult	ElectricityNMIMeterGroup/	xsd:string maxLen = 4 VARCHAR2(4)	Yes	MPB
VoltageTransformerAccuracyClass	ElectricityNMIMeterGroup/	xsd:string maxLen = 20 VARCHAR(20)	Yes	MPB
VoltageTransformerLocation	ElectricityNMIMeterGroup/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
VoltageTransformerRatio	ElectricityNMIMeterGroup/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
VoltageTransformerTest	ElectricityNMIMeterGroup/	xsd:string maxLen = 20 VARCHAR2(20)	Yes	MPB
VoltageTransformerTestDate	ElectricityNMIMeterGroup/	xsd:date dd-mmm-yyyy	Yes	MPB

Field	Path	Data type	Required	Provider
VoltageTransformerType	ElectricityNMIMeterGroup/	xsd:string maxLen = 50 50 VARCHAR(50)	Yes	MPB

15.4.2.4 ElectricityNMIMeterGroup
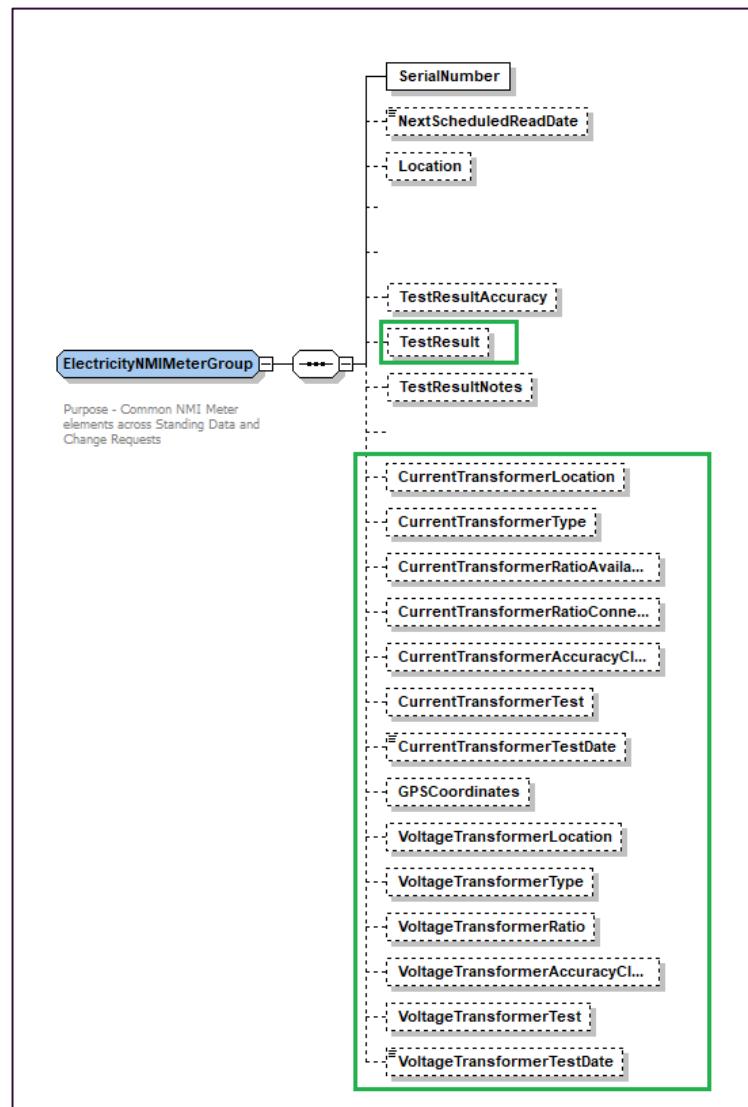
Fifteen new fields for the Meter Register Table to the ElectricityNMIMeterGroup and addition of new TestResult element.

```xml
<xsd:group name="ElectricityNMIMeterGroup">
            <xsd:annotation>
                    <xsd:documentation>
Purpose - Common NMI Meter elements across Standing Data and Change Requests
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:sequence>
                    <xsd:element name="SerialNumber" type="MeterSerialNumber"/>
                    <xsd:element name="NextScheduledReadDate" type="xsd:date" nillable="true" minOccurs="0"/>
                    <xsd:element name="Location" type="MeterLocation" nillable="true" minOccurs="0"/>
                    <xsd:element name="Hazard" type="MeterHazard" nillable="true" minOccurs="0"/>
                    <xsd:element name="InstallationTypeCode" type="MeterInstallationTypeCode" nillable="true"
minOccurs="0"/>
                    <xsd:element name="Route" type="MeterRoute" nillable="true" minOccurs="0"/>
                    <xsd:element name="Use" type="MeterUse" nillable="true" minOccurs="0"/>
                    <xsd:element name="Point" type="MeterPoint" nillable="true" minOccurs="0"/>
                    <xsd:element name="Manufacturer" type="MeterManufacturer" nillable="true" minOccurs="0"/>
                    <xsd:element name="Model" type="MeterModel" nillable="true" minOccurs="0"/>
                    <xsd:element name="TransformerLocation" type="MeterTransformerLocation" nillable="true"
minOccurs="0"/>
                    <xsd:element name="TransformerType" type="MeterTransformerType" nillable="true"
minOccurs="0"/>
                    <xsd:element name="TransformerRatio" type="MeterTransformerRatio" nillable="true"
minOccurs="0"/>
                    <xsd:element name="Constant" type="MeterConstant" nillable="true" minOccurs="0"/>
                    <xsd:element name="LastTestDate" type="xsd:date" nillable="true" minOccurs="0"/>
                    <xsd:element name="NextTestDate" type="xsd:date" nillable="true" minOccurs="0"/>
                    <xsd:element name="TestResultAccuracy" type="MeterTestResultAccuracy" nillable="true"
minOccurs="0"/>
<xsd:element name="TestResult" type="MeterTestResult" nillable="true" minOccurs="0"/>
                    <xsd:element name="TestResultNotes" type="MeterTestResultNotes" nillable="true"
minOccurs="0"/>
```

```xml
                <xsd:element name="TestPerformedBy" type="MeterTestPerformedBy" nillable="true" minOccurs="0"/>
                <xsd:element name="MeasurementType" type="MeterMeasurementType" nillable="true" minOccurs="0"/>
                <xsd:element name="ReadTypeCode" type="MeterReadTypeCode" nillable="true" minOccurs="0"/>
                <xsd:element name="RemotePhoneNumber" type="MeterRemotePhoneNumber" nillable="true" minOccurs="0"/>
                <xsd:element name="CommunicationsEquipmentType" type="MeterCommunicationsEquipmentType" nillable="true" minOccurs="0"/>
                <xsd:element name="CommunicationsProtocol" type="MeterCommunicationsProtocol" nillable="true" minOccurs="0"/>
                <xsd:element name="DataConversion" type="MeterDataConversion" nillable="true" minOccurs="0"/>
                <xsd:element name="DataValidations" type="MeterDataValidations" nillable="true" minOccurs="0"/>
                <xsd:element name="Status" type="NMIStatusCode" nillable="true" minOccurs="0"/>
                <xsd:element name="Program" type="MeterProgram" nillable="true" minOccurs="0"/>
                <xsd:element name="AdditionalSiteInformation" type="MeterAdditionalSiteInformation" nillable="true" minOccurs="0"/>
                <xsd:element name="EstimationInstructions" type="MeterEstimationInstructions" nillable="true" minOccurs="0"/>
                <xsd:element name="AssetManagementPlan" type="MeterAssetManagementPlan" nillable="true" minOccurs="0"/>
                <xsd:element name="CalibrationTables" type="MeterCalibrationTables" nillable="true" minOccurs="0"/>
                <xsd:element name="UserAccessRights" type="MeterUserAccessRights" nillable="true" minOccurs="0"/>
                <xsd:element name="Password" type="MeterPassword" nillable="true" minOccurs="0"/>
                <xsd:element name="TestCalibrationProgram" type="MeterTestCalibrationProgram" nillable="true" minOccurs="0"/>
                <xsd:element name="KeyCode" type="KeyCode" nillable="true" minOccurs="0"/>
                <xsd:element name="CustomerFundedMeter" type="CustomerFundedMeter" nillable="true" minOccurs="0"/>
                <xsd:element name="CurrentTransformerLocation" type="CurrentTransformerLocation" nillable="true" minOccurs="0"/>
```

```xml
                    <xsd:element name="CurrentTransformerType" type="CurrentTransformerType" nillable="true"
minOccurs="0"/>
                    <xsd:element name="CurrentTransformerRatioAvailable"
type="CurrentTransformerRatioAvailable" nillable="true" minOccurs="0"/>
                    <xsd:element name="CurrentTransformerRatioConnected"
type="CurrentTransformerRatioConnected" nillable="true" minOccurs="0"/>
                    <xsd:element name="CurrentTransformerAccuracyClass" type="CurrentTransformerAccuracyClass"
nillable="true" minOccurs="0"/>
                    <xsd:element name="CurrentTransformerTest" type="TransformerTest" nillable="true"
minOccurs="0"/>
                    <xsd:element name="CurrentTransformerTestDate" type="xsd:date" nillable="true"
minOccurs="0"/>
                    <xsd:element name="GPSCoordinates" type="GeographicCoordinate" nillable="true"
minOccurs="0"/>
                    <xsd:element name="VoltageTransformerLocation" type="VoltageTransformerLocation"
nillable="true" minOccurs="0"/>
                    <xsd:element name="VoltageTransformerType" type="VoltageTransformerType" nillable="true"
minOccurs="0"/>
                    <xsd:element name="VoltageTransformerRatio" type="VoltageTransformerRatio" nillable="true"
minOccurs="0"/>
                    <xsd:element name="VoltageTransformerAccuracyClass" type="VoltageTransformerAccuracyClass"
nillable="true" minOccurs="0"/>
                    <xsd:element name="VoltageTransformerTest" type="TransformerTest" nillable="true"
minOccurs="0"/>
                    <xsd:element name="VoltageTransformerTestDate" type="xsd:date" nillable="true"
minOccurs="0"/>
            </xsd:sequence>
            </xsd:group>
```

15.4.3 ClientInformation_r42.xsd

15.4.3.1 NMI standing data changed fields

Field	Path	Data Type	Required	Provider
GNAFPID	AustralianPartialAddress/ AustralianAddress/ AustralianStructuredAddressPartialComponents/ AustralianStructuredAddressComponents/	xsd:string maxLen = 20 VARCHAR2(20)	Yes	LNSP/AEMO
SectionNumber	AustralianPartialAddress/ AustralianAddress/ AustralianStructuredAddressPartialComponents/ AustralianStructuredAddressComponents/	xsd:string maxLen = 20 VARCHAR2(20)	Yes, for NSW and ACT OPTIONAL for other jurisdictions	LNSP
DPNumber	AustralianPartialAddress/ AustralianAddress/ AustralianStructuredAddressPartialComponents/ AustralianStructuredAddressComponents/	xsd:string maxLen = 20 VARCHAR2(20)	Yes, for NSW and ACT OPTIONAL for other jurisdictions	LNSP
HouseNumberToSuffix	AustralianPartialAddress/ AustralianAddress/ AustralianStructuredAddressPartialComponents/ AustralianStructuredAddressComponents/	xsd:nonNegativeInteger maxIncl = 99999 NUMBER(5)	Yes	LNSP

Field	Path	Data Type	Required	Provider
HouseNumberTo	AustralianPartialAddress/ AustralianAddress/ AustralianStructuredAddressPartialComponents/ AustralianStructuredAddressComponents/	Xsd:nonNegativeInteger maxIncl = 99999 NUMBER(5)	Yes	LNSP
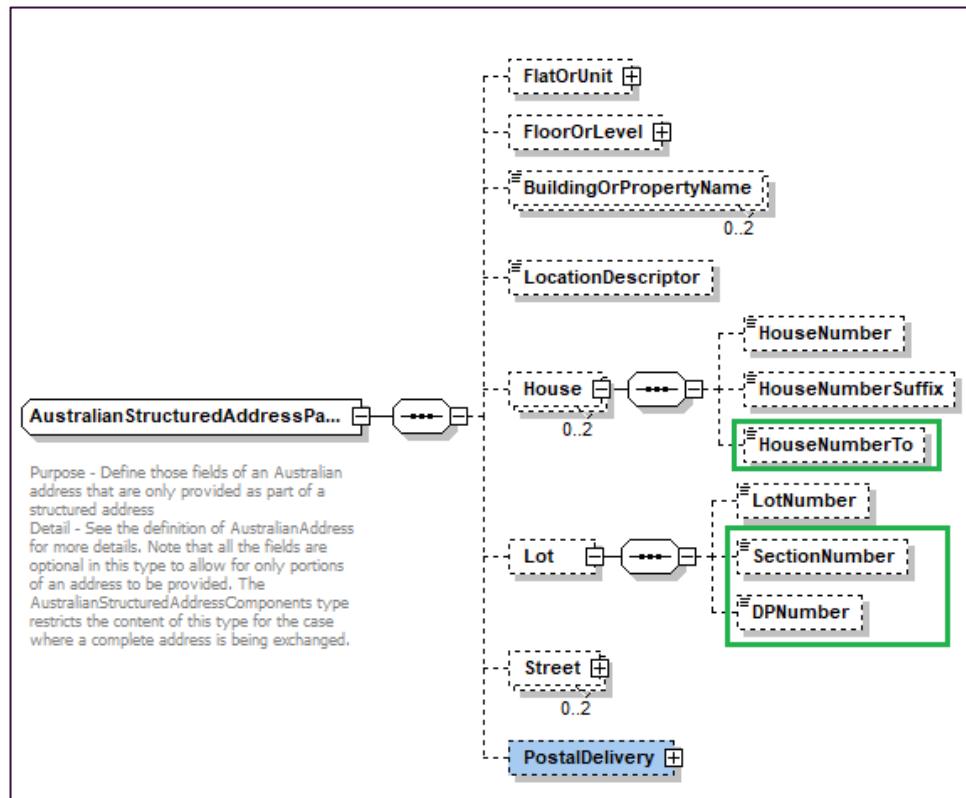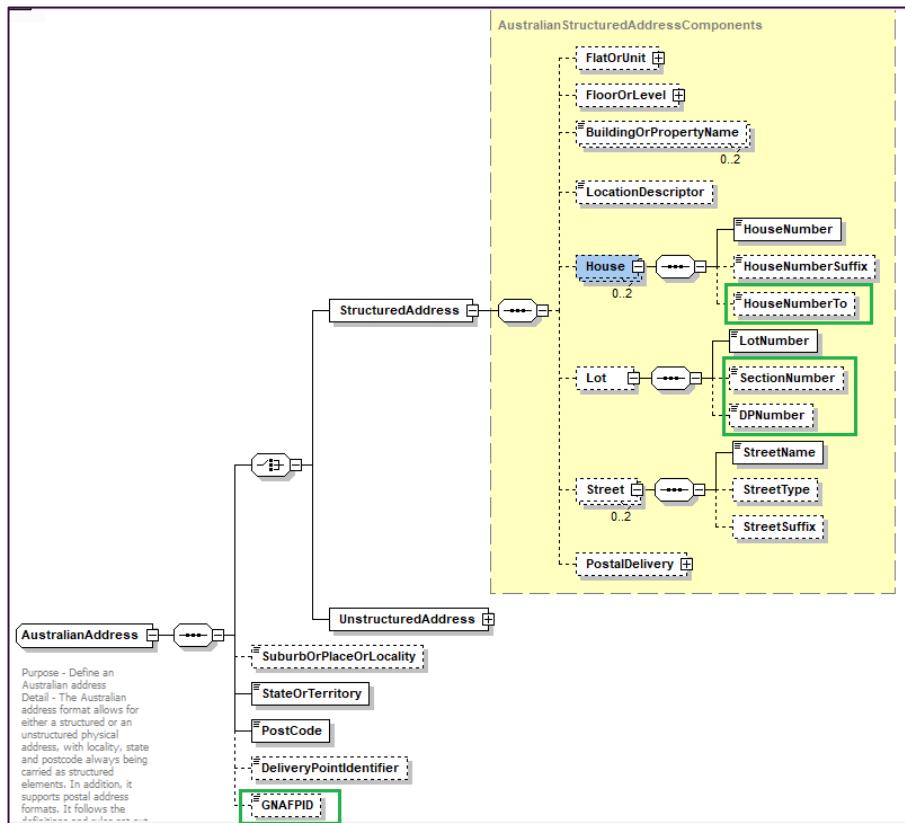
15.4.3.2 New address related fields

HouseNumberTo, HouseNumberToSuffix, SectionNumber, DPNumber, GNAFPID defined. added to existing AustralianAddress, AustralianPartialAddress, AustralianStructuredAddressPartialComponents, and AustralianStructuredAddressComponents.

```xml
<xsd:complexType name="AustralianPartialAddress">
        <xsd:annotation>
```

```
                    <xsd:documentation>
Purpose - Define an Australian address
Detail - This type allows the transfer of portions of an Australian address. where a complete address is to
be transferred, the AustralianAddress type should be used.
      </xsd:documentation>
            </xsd:annotation>
            <xsd:sequence>
                    <xsd:choice minOccurs="0">
                            <xsd:element name="StructuredAddress"
type="AustralianStructuredAddressPartialComponents"/>
                            <xsd:element name="UnstructuredAddress">
                                    <xsd:complexType>
                                            <xsd:sequence>
                                                    <xsd:element name="AddressLine" type="AustralianAddressLine"
nillable="true" maxOccurs="3"/>
                                            </xsd:sequence>
                                    </xsd:complexType>
                            </xsd:element>
                    </xsd:choice>
                    <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:sequence>
      </xsd:complexType>
<xsd:complexType name="AustralianStructuredAddressPartialComponents">
            <xsd:annotation>
                    <xsd:documentation>
Purpose - Define those fields of an Australian address that are only provided as part of a structured address
```

```
Detail - See the definition of AustralianAddress for more details. Note that all the fields are optional in
this type to allow for only portions of an address to be provided. The AustralianStructuredAddressComponents
type restricts the content of this type for the case where a complete address is being exchanged.
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:sequence>
                <xsd:element name="FlatOrUnit" minOccurs="0">
                    <xsd:complexType>
                        <xsd:sequence>
                            <xsd:element name="FlatOrUnitType" type="AustralianFlatOrUnitType"
nillable="true" minOccurs="0"/>
                            <xsd:element name="FlatOrUnitNumber" type="AustralianFlatOrUnitNumber"
nillable="true" minOccurs="0"/>
                        </xsd:sequence>
                    </xsd:complexType>
                </xsd:element>
                <xsd:element name="FloorOrLevel" minOccurs="0">
                    <xsd:complexType>
                        <xsd:sequence>
                <xsd:element name="FloorOrLevelType" type="AustralianFloorOrLevelType" nillable="true"
minOccurs="0"/>
                <xsd:element name="FloorOrLevelNumber" type="AustralianFloorOrLevelNumber" nillable="true"
minOccurs="0"/>
                        </xsd:sequence>
                    </xsd:complexType>
                </xsd:element>
            <xsd:element name="BuildingOrPropertyName" type="AustralianBuildingOrPropertyName"
nillable="true" minOccurs="0" maxOccurs="2"/>
                <xsd:element name="LocationDescriptor" type="AustralianLocationDescriptor" nillable="true"
minOccurs="0"/>
                <xsd:element name="House" minOccurs="0" maxOccurs="2">
                    <xsd:complexType>
                        <xsd:sequence>
                            <xsd:element name="HouseNumber" type="AustralianHouseNumber"
nillable="true" minOccurs="0"/>
```

```xml
                                        <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:complexType>
                            </xsd:element>
                            <xsd:element name="Lot" minOccurs="0">
                                <xsd:complexType>
                                    <xsd:sequence>
                                        <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:sequence>
                                </xsd:complexType>
                            </xsd:element>
                            <xsd:element name="Street" minOccurs="0" maxOccurs="2">
                                <xsd:complexType>
                                    <xsd:sequence>
                                        <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:sequence>
                                </xsd:complexType>
                            </xsd:element>
                            <xsd:element name="PostalDelivery" minOccurs="0">
                                <xsd:complexType>
                                    <xsd:sequence>
```

```xml
                                        <xsd:element name="PostalDeliveryType"
type="AustralianPostalDeliveryType" nillable="true" minOccurs="0"/>
                                        <xsd:element name="PostalDeliveryNumber" nillable="true" minOccurs="0">
                                            <xsd:complexType>
                                                <xsd:sequence>
                                        <xsd:element name="PostalDeliveryNumberPrefix"
type="AustralianPostalDeliveryNumberPrefix" minOccurs="0"/>
                                        <xsd:element name="PostalDeliveryNumberValue"
type="AustralianPostalDeliveryNumberValue" minOccurs="0"/>
                                        <xsd:element name="PostalDeliveryNumberSuffix"
type="AustralianPostalDeliveryNumberSuffix" minOccurs="0"/>
                                                </xsd:sequence>
                                            </xsd:complexType>
                                        </xsd:element>
                                    </xsd:sequence>
                                </xsd:complexType>
                            </xsd:element>
                    </xsd:sequence>
            </xsd:complexType>
<xsd:complexType name="AustralianAddress">
                <xsd:annotation>
                    <xsd:documentation>
Purpose - Define an Australian address
Detail - The Australian address format allows for either a structured or an unstructured physical address,
with locality, state and postcode always being carried as structured elements. In addition, it supports
postal address formats. It follows the definitions and rules set out in AS4590 for address exchange.
It is important to note the occurrence frequency of elements within the format, particularly
BuildingOrPropertyName, House and Street.
        </xsd:documentation>
                </xsd:annotation>
                <xsd:sequence>
                    <xsd:choice>
                            <xsd:element name="StructuredAddress" type="AustralianStructuredAddressComponents"/>
                            <xsd:element name="UnstructuredAddress">
                                <xsd:complexType>
```

```
                        <xsd:sequence>
                                <xsd:element name="AddressLine" type="AustralianAddressLine"
nillable="true" maxOccurs="3"/>
                        </xsd:sequence>
                    </xsd:complexType>
                </xsd:element>
            </xsd:choice>
            <xsd:element name="SuburbOrPlaceOrLocality" type="AustralianSuburbOrPlaceOrLocality"
nillable="true" minOccurs="0"/>
            <xsd:element name="StateOrTerritory" type="AustralianStateOrTerritory"/>
            <xsd:element name="PostCode" type="AustralianPostCode"/>
            <xsd:element name="DeliveryPointIdentifier" type="AustralianDeliveryPointIdentifier"
nillable="true" minOccurs="0"/>
            <xsd:element name="GNAFPID" type="GeocodedNationalAddressFilePersistentIdentifier"
nillable="true" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
```

15.4.3.3 Address related fields added to existing elements

New address related fields added to existing AustralianAddress, AustralianPartialAddress, AustralianStructuredAddressPartialComponents, and AustralianStructuredAddressComponents.

```
            <xsd:complexType name="AustralianStructuredAddressComponents">
            <xsd:annotation>
                <xsd:documentation>
Purpose - Define those fields of an Australian address that are only provided as part of a structured address
Detail - See the definition of AustralianAddress for more details. This type should be used where a complete
address is being provided. If only part of an address is being provided, use the
AustralianStructuredAddressPartialComponents type.
                </xsd:documentation>
```

```xml
                    </xsd:annotation>
                    <xsd:sequence>
                        <xsd:element name="FlatOrUnit" minOccurs="0">
                            <xsd:complexType>
                                <xsd:sequence>
                                    <xsd:element name="FlatOrUnitType" type="AustralianFlatOrUnitType"
nillable="true"/>
                                    <xsd:element name="FlatOrUnitNumber" type="AustralianFlatOrUnitNumber"
nillable="true"/>
                                </xsd:sequence>
                            </xsd:complexType>
                        </xsd:element>
                        <xsd:element name="FloorOrLevel" minOccurs="0">
                            <xsd:complexType>
                                <xsd:sequence>
                                    <xsd:element name="FloorOrLevelType" type="AustralianFloorOrLevelType"
nillable="true"/>
                                    <xsd:element name="FloorOrLevelNumber"
type="AustralianFloorOrLevelNumber" nillable="true" minOccurs="0"/>
                                </xsd:sequence>
                            </xsd:complexType>
                        </xsd:element>
                        <xsd:element name="BuildingOrPropertyName" type="AustralianBuildingOrPropertyName"
nillable="true" minOccurs="0" maxOccurs="2"/>
                        <xsd:element name="LocationDescriptor" type="AustralianLocationDescriptor" nillable="true"
minOccurs="0"/>
                        <xsd:element name="House" minOccurs="0" maxOccurs="2">
                            <xsd:complexType>
                                <xsd:sequence>
                                    <xsd:element name="HouseNumber" type="AustralianHouseNumber"
nillable="true"/>
                                    <xsd:element name="HouseNumberSuffix" type="AustralianHouseNumberSuffix"
nillable="true" minOccurs="0"/>
                                    <xsd:element name="HouseNumberTo" type="AustralianHouseNumber"
nillable="true" minOccurs="0"/>
```

```xsd
<xsd:element name="HouseNumberToSuffix" type="AustralianHouseNumberSuffix" nillable="true" minOccurs="0"/>
</xsd:sequence>
                        </xsd:complexType>
                </xsd:element>
                <xsd:element name="Lot" minOccurs="0">
                        <xsd:complexType>
                                <xsd:sequence>
                                        <xsd:element name="LotNumber" type="AustralianLotNumber"
nillable="true"/>
                                        <xsd:element name="SectionNumber" type="SectionNumber" nillable="true"
minOccurs="0"/>
                                        <xsd:element name="DPNumber" type="DepositedPlanNumber" nillable="true"
minOccurs="0"/>
                                </xsd:sequence>
                        </xsd:complexType>
                </xsd:element>
                <xsd:element name="Street" minOccurs="0" maxOccurs="2">
                        <xsd:complexType>
                                <xsd:sequence>
                                        <xsd:element name="StreetName" type="AustralianStreetName"
nillable="true"/>
                                        <xsd:element name="StreetType" type="AustralianStreetType"
nillable="true" minOccurs="0"/>
                                        <xsd:element name="StreetSuffix" type="AustralianStreetSuffix"
nillable="true" minOccurs="0"/>
                                </xsd:sequence>
                        </xsd:complexType>
                </xsd:element>
                <xsd:element name="PostalDelivery" minOccurs="0">
                        <xsd:complexType>
                                <xsd:sequence>
                                        <xsd:element name="PostalDeliveryType"
type="AustralianPostalDeliveryType" nillable="true"/>
                                        <xsd:element name="PostalDeliveryNumber" minOccurs="0">
                                                <xsd:complexType>
```

```xml
                                                <xsd:sequence>
                                    <xsd:element name="PostalDeliveryNumberPrefix"
type="AustralianPostalDeliveryNumberPrefix" nillable="true" minOccurs="0"/>
                                    <xsd:element name="PostalDeliveryNumberValue"
type="AustralianPostalDeliveryNumberValue" nillable="true" minOccurs="0"/>
                                    <xsd:element name="PostalDeliveryNumberSuffix"
type="AustralianPostalDeliveryNumberSuffix" nillable="true" minOccurs="0"/>
                                                </xsd:sequence>
                                            </xsd:complexType>
                                        </xsd:element>
                                    </xsd:sequence>
                                </xsd:complexType>
                            </xsd:element>
                    </xsd:sequence>
            </xsd:complexType>
<xsd:simpleType name="GeocodedNationalAddressFilePersistentIdentifier">
            <xsd:annotation>
                    <xsd:documentation>
Purpose - Define the Geocoded National Address File (G-NAF) Persistent Identifier (PID) for a given address
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:restriction base="xsd:string">
                    <xsd:maxLength value="20"/>
            </xsd:restriction>
    </xsd:simpleType>
    <xsd:simpleType name="SectionNumber">
            <xsd:annotation>
                    <xsd:documentation>
Purpose - Corresponds to a reference that contributes to defining the legal boundaries of a plot of land in
NSW and ACT.
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:restriction base="xsd:string">
                    <xsd:maxLength value="20"/>
            </xsd:restriction>
```

```
        </xsd:simpleType>
        <xsd:simpleType name="DepositedPlanNumber">
                <xsd:annotation>
                        <xsd:documentation>
Purpose - A deposited plan (DP) number corresponds to an image that defines the legal boundaries of a plot of
land in NSW and ACT
                        </xsd:documentation>
                </xsd:annotation>
                <xsd:restriction base="xsd:string">
                        <xsd:maxLength value="20"/>
                </xsd:restriction>
        </xsd:simpleType>
```

15.4.3.4 NMI standing data removed fields

Field	aseXML Path
AddressLine	ElectricityStandingData/MasterData/Address/AustralianAddress/UnstructuredAddress/Address/

15.4.4 **Electricity_r42.xsd**

15.4.4.1 **Updated version number**

Field	Path	version
NMIStandingData	ElectricityStandingData	r42

15.4.4.2 **ElectricityStandingData**

Updated version attribute.

```
<xsd:complexType name="ElectricityStandingData">
            <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="r42" use="optional" default="r42"/>
            </xsd:extension>
        </xsd:complexContent>
    </xsd:complexType>
```

15.4.4.3   Meter register data new fields

Field	Path	Data type	Required	Provider
CurrentTransformerAccuracyClass	ElectricityMeter/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
CurrentTransformerLocation	ElectricityMeter/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
CurrentTransformerRatioAvailable	ElectricityMeter/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
CurrentTransformerRatioConnected	ElectricityMeter/	xsd:string maxLen = 20 VARCHAR(20)	Yes	MPB
CurrentTransformerTest	ElectricityMeter/	xsd:string maxLen = 20 VARCHAR(20)	Yes	MPB
CurrentTransformerTestDate	ElectricityMeter/	xsd:date dd-mm-yyyy	Yes	MPB
CurrentTransformerType	ElectricityMeter/	xsd:string maxLen = 20 VARCHAR(20)	Yes	MPB
GPSCoordinates	ElectricityMeter/	xsd:decimal minIncl = 0 maxIncl = 999.9999999 totdig = 3 fracdig = 7 NUMERIC (s3.7)	Yes	MPB
TestResult	ElectricityMeter/	xsd:string maxLen = 4 VARCHAR2(4)	Yes	MPB
VoltageTransformerAccuracyClass	ElectricityMeter/	xsd:string maxLen = 20 VARCHAR(20)	Yes	MPB

Field	Path	Data type	Required	Provider
VoltageTransformerLocation	ElectricityMeter/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
VoltageTransformerRatio	ElectricityMeter/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB
VoltageTransformerTest	ElectricityMeter/	xsd:string maxLen = 20 VARCHAR2(20)	Yes	MPB
VoltageTransformerTestDate	ElectricityMeter/	xsd:date dd-mm-yyyy	Yes	MPB
VoltageTransformerType	ElectricityMeter/	xsd:string maxLen = 50 VARCHAR(50)	Yes	MPB

15.4.4.4   ElectricityMeter

```
<xsd:simpleType name="MeterTestResult">
      <xsd:annotation>
            <xsd:documentation>
MSATS Data Model Column - TestResult
Renamed from MeterTestResultAccuracy
                  </xsd:documentation>
            </xsd:annotation>
      <xsd:restriction base="xsd:string">
            <xsd:maxLength value="4"/>
      </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="CurrentTransformerLocation">
      <xsd:annotation>
            <xsd:documentation>
MSATS Data Model Column - CurrentTransformerLocation
            </xsd:documentation>
```

```xml
                </xsd:annotation>
                <xsd:restriction base="xsd:string">
                        <xsd:maxLength value="50"/>
                </xsd:restriction>
        </xsd:simpleType>
        <xsd:simpleType name="CurrentTransformerType">
                <xsd:annotation>
                        <xsd:documentation>
MSATS Data Model Column - CurrentTransformerType
                        </xsd:documentation>
                </xsd:annotation>
                <xsd:restriction base="xsd:string">
                        <xsd:maxLength value="20"/>
                </xsd:restriction>
        </xsd:simpleType>
<xsd:simpleType name="CurrentTransformerRatioAvailable">
                <xsd:annotation>
                        <xsd:documentation>
MSATS Data Model Column - CurrentTransformerRatioAvailable
                        </xsd:documentation>
                </xsd:annotation>
                <xsd:restriction base="xsd:string">
                        <xsd:maxLength value="50"/>
                </xsd:restriction>
        </xsd:simpleType>
        <xsd:simpleType name="CurrentTransformerRatioConnected">
                <xsd:annotation>
                        <xsd:documentation>
MSATS Data Model Column - CurrentTransformerRatioConnected
                        </xsd:documentation>
                </xsd:annotation>
                <xsd:restriction base="xsd:string">
                        <xsd:maxLength value="20"/>
                </xsd:restriction>
        </xsd:simpleType>
```

```xml
        <xsd:simpleType name="CurrentTransformerAccuracyClass">
                <xsd:annotation>
                        <xsd:documentation>
MSATS Data Model Column - CurrentTransformerAccuracyClass
                        </xsd:documentation>
                </xsd:annotation>
                <xsd:restriction base="xsd:string">
                        <xsd:maxLength value="50"/>
                </xsd:restriction>
        </xsd:simpleType>
        <xsd:simpleType name="VoltageTransformerLocation">
                <xsd:annotation>
                        <xsd:documentation>
MSATS Data Model Column - VoltageTransformerLocation
                        </xsd:documentation>
                </xsd:annotation>
                <xsd:restriction base="xsd:string">
                        <xsd:maxLength value="50"/>
                </xsd:restriction>
        </xsd:simpleType>
        <xsd:simpleType name="VoltageTransformerType">
                <xsd:annotation>
                        <xsd:documentation>
MSATS Data Model Column - VoltageTransformerType
                        </xsd:documentation>
                </xsd:annotation>
                <xsd:restriction base="xsd:string">
                        <xsd:maxLength value="50"/>
                </xsd:restriction>
        </xsd:simpleType>
<xsd:simpleType name="VoltageTransformerRatio">
                <xsd:annotation>
                        <xsd:documentation>
MSATS Data Model Column - VoltageTransformerRatio
                        </xsd:documentation>
```

```xml
            </xsd:annotation>
            <xsd:restriction base="xsd:string">
                    <xsd:maxLength value="50"/>
            </xsd:restriction>
      </xsd:simpleType>
      <xsd:simpleType name="VoltageTransformerAccuracyClass">
            <xsd:annotation>
                    <xsd:documentation>
MSATS Data Model Column - VoltageTransformerAccuracyClass
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:restriction base="xsd:string">
                    <xsd:maxLength value="20"/>
            </xsd:restriction>
      </xsd:simpleType>
      <xsd:simpleType name="TransformerTest">
            <xsd:annotation>
                    <xsd:documentation>
MSATS Data Model Column - Current and Voltage TransformerTest
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:restriction base="xsd:string">
                    <xsd:maxLength value="20"/>
            </xsd:restriction>
      </xsd:simpleType>
<xsd:simpleType name="SharedIsolationPointFlag">
            <xsd:annotation>
                    <xsd:documentation>
Purpose - Flag to indicate the Shared Fuse Arrangement for the metering installation -
SharedIsolationPointFlag
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:restriction base="xsd:string">
                    <xsd:length value="1"/>
            </xsd:restriction>
```

```xml
        </xsd:simpleType>
        <xsd:simpleType name="MeterMalfunctionExemptionNumber">
              <xsd:annotation>
                    <xsd:documentation>
Purpose - Identify the Meter Malfunction Exemption Number - MeterMalfunctionExemptionNumber
Details - The exemption number granted by AEMO when a meter malfunction exemption is granted
                    </xsd:documentation>
              </xsd:annotation>
              <xsd:restriction base="xsd:string">
                    <xsd:maxLength value="8"/>
              </xsd:restriction>
        </xsd:simpleType>
        <xsd:simpleType name="ConnectionConfiguration">
              <xsd:annotation>
                    <xsd:documentation>
Purpose - Information about the configuration of the connection point - ConnectionConfiguration
                    </xsd:documentation>
              </xsd:annotation>
              <xsd:restriction base="xsd:string">
                    <xsd:length value="2"/>
              </xsd:restriction>
        </xsd:simpleType>
```

15.4.4.5   Meter register data amendment

The CATS Meter Register Data field name TestResultAccuracy is changed to TestResult. For the B2M aseXML Schema r42 the TestResult field is treated as a new field with the following attributes:

Field	Path	Data type	Required	Provider
TestResult	ElectricityMeter/TestResult	xsd:string maxLen = 4 VARCHAR2(4)	Yes	MPB

15.4.4.6 MeterTestResult

Fifteen new fields for the Meter Register Table in ElectricityMeter and new TestResult field.

```
<xsd:complexType name="ElectricityMeter">
            <xsd:annotation>
                    <xsd:documentation>
Purpose - container for electricity meter information
        </xsd:documentation>
            </xsd:annotation>
            <xsd:sequence>
                    <xsd:element name="SerialNumber" type="MeterSerialNumber" nillable="true" minOccurs="0"/>
                    <xsd:element name="NextScheduledReadDate" type="xsd:date" nillable="true" minOccurs="0"/>
                    <xsd:element name="Location" type="MeterLocation" nillable="true" minOccurs="0"/>
                    <xsd:element name="Hazard" type="MeterHazard" nillable="true" minOccurs="0"/>
                    <xsd:element name="InstallationTypeCode" type="MeterInstallationTypeCode" nillable="true"
minOccurs="0"/>
                    <xsd:element name="Route" type="MeterRoute" nillable="true" minOccurs="0"/>
                    <xsd:element name="Use" type="MeterUse" nillable="true" minOccurs="0"/>
                    <xsd:element name="Point" type="MeterPoint" nillable="true" minOccurs="0"/>
                    <xsd:element name="Manufacturer" type="MeterManufacturer" nillable="true" minOccurs="0"/>
                    <xsd:element name="Model" type="MeterModel" nillable="true" minOccurs="0"/>
                    <xsd:element name="TransformerLocation" type="MeterTransformerLocation" nillable="true"
minOccurs="0"/>
                    <xsd:element name="TransformerType" type="MeterTransformerType" nillable="true"
minOccurs="0"/>
                    <xsd:element name="TransformerRatio" type="MeterTransformerRatio" nillable="true"
minOccurs="0"/>
                    <xsd:element name="Constant" type="MeterConstant" nillable="true" minOccurs="0"/>
                    <xsd:element name="LastTestDate" type="xsd:date" nillable="true" minOccurs="0"/>
                    <xsd:element name="NextTestDate" type="xsd:date" nillable="true" minOccurs="0"/>
```

```xml
                <xsd:element name="TestResultAccuracy" type="MeterTestResultAccuracy" nillable="true"
minOccurs="0"/>
<xsd:element name="TestResult" type="MeterTestResult" nillable="true" minOccurs="0"/>
                <xsd:element name="TestResultNotes" type="MeterTestResultNotes" nillable="true"
minOccurs="0"/>
                <xsd:element name="TestPerformedBy" type="MeterTestPerformedBy" nillable="true"
minOccurs="0"/>
                <xsd:element name="MeasurementType" type="MeterMeasurementType" nillable="true"
minOccurs="0"/>
                <xsd:element name="ReadTypeCode" type="MeterReadTypeCode" nillable="true" minOccurs="0"/>
                <xsd:element name="RemotePhoneNumber" type="MeterRemotePhoneNumber" nillable="true"
minOccurs="0"/>
                <xsd:element name="CommunicationsEquipmentType" type="MeterCommunicationsEquipmentType"
nillable="true" minOccurs="0"/>
                <xsd:element name="CommunicationsProtocol" type="MeterCommunicationsProtocol"
nillable="true" minOccurs="0"/>
                <xsd:element name="DataConversion" type="MeterDataConversion" nillable="true"
minOccurs="0"/>
                <xsd:element name="DataValidations" type="MeterDataValidations" nillable="true"
minOccurs="0"/>
                <xsd:element name="Status" type="MeterStatusCode" minOccurs="0"/>
                <xsd:element name="Program" type="MeterProgram" nillable="true" minOccurs="0"/>
                <xsd:element name="AdditionalSiteInformation" type="MeterAdditionalSiteInformation"
nillable="true" minOccurs="0"/>
                <xsd:element name="EstimationInstructions" type="MeterEstimationInstructions"
nillable="true" minOccurs="0"/>
                <xsd:element name="AssetManagementPlan" type="MeterAssetManagementPlan" nillable="true"
minOccurs="0"/>
                <xsd:element name="CalibrationTables" type="MeterCalibrationTables" nillable="true"
minOccurs="0"/>
                <xsd:element name="UserAccessRights" type="MeterUserAccessRights" nillable="true"
minOccurs="0"/>
                <xsd:element name="Password" type="MeterPassword" nillable="true" minOccurs="0"/>
                <xsd:element name="TestCalibrationProgram" type="MeterTestCalibrationProgram"
nillable="true" minOccurs="0"/>
```

```xml
                <xsd:element name="KeyCode" type="KeyCode" nillable="true" minOccurs="0"/>
                <xsd:element name="CustomerFundedMeter" type="CustomerFundedMeter" nillable="true"
minOccurs="0"/>
                <xsd:element name="DisplayType" type="DisplayType" nillable="true" minOccurs="0"/>
                <xsd:element name="SupplyPhase" type="SupplyPhase" minOccurs="0"/>
                <xsd:element name="GenerationType" type="GenerationType" minOccurs="0"/>
                <xsd:element name="GeneralSupply" type="YesNo" minOccurs="0"/>
                <xsd:element name="InstrumentTransformers" type="InstrumentTransformers" minOccurs="0"/>
                <xsd:element name="ControlEquipments" type="ControlEquipments" nillable="true"
minOccurs="0"/>
                <xsd:element name="RegisterConfiguration" type="ElectricityMeterRegisterConfiguration"
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="CurrentTransformerLocation" type="CurrentTransformerLocation"
nillable="true" minOccurs="0"/>
                <xsd:element name="CurrentTransformerType" type="CurrentTransformerType" nillable="true"
minOccurs="0"/>
                <xsd:element name="CurrentTransformerRatioAvailable"
type="CurrentTransformerRatioAvailable" nillable="true" minOccurs="0"/>
                <xsd:element name="CurrentTransformerRatioConnected"
type="CurrentTransformerRatioConnected" nillable="true" minOccurs="0"/>
                <xsd:element name="CurrentTransformerAccuracyClass" type="CurrentTransformerAccuracyClass"
nillable="true" minOccurs="0"/>
                <xsd:element name="CurrentTransformerTest" type="TransformerTest" nillable="true"
minOccurs="0"/>
                <xsd:element name="CurrentTransformerTestDate" type="xsd:date" nillable="true"
minOccurs="0"/>
                <xsd:element name="GPSCoordinates" type="GeographicCoordinate" nillable="true"
minOccurs="0"/>
                <xsd:element name="VoltageTransformerLocation" type="VoltageTransformerLocation"
nillable="true" minOccurs="0"/>
                <xsd:element name="VoltageTransformerType" type="VoltageTransformerType" nillable="true"
minOccurs="0"/>
```

```xml
                    <xsd:element name="VoltageTransformerRatio" type="VoltageTransformerRatio" nillable="true"
minOccurs="0"/>
                    <xsd:element name="VoltageTransformerAccuracyClass" type="VoltageTransformerAccuracyClass"
nillable="true" minOccurs="0"/>
                    <xsd:element name="VoltageTransformerTest" type="TransformerTest" nillable="true"
minOccurs="0"/>
                    <xsd:element name="VoltageTransformerTestDate" type="xsd:date" nillable="true"
minOccurs="0"/>
            </xsd:sequence>
        </xsd:complexType>
```

15.4.4.7 Meter hazard and location

Field	Path	r39_p1 data type	r42 data type	Required	Provider
Hazard	ElectricityMeter/	xsd:string maxLen = 12	xsd:string maxLen = **100** VARCHAR2(100)	Yes	MPB
Location	ElectricityMeter/	xsd:string maxLen = 50	xsd:string maxLen = **200** VARCHAR2(200)	Yes	MPB

15.4.4.8 Updated data length element

```xml
        <xsd:simpleType name="MeterHazard">
            <xsd:annotation>
                <xsd:documentation>
MSATS Data Model Column - MeterHazard
                </xsd:documentation>
            </xsd:annotation>
            <xsd:restriction base="xsd:string">
                <xsd:maxLength value="100"/>
```

```
                </xsd:restriction>
        </xsd:simpleType>
<xsd:simpleType name="MeterLocation">
            <xsd:annotation>
                    <xsd:documentation>
MSATS Data Model Column - MeterLocation
                    </xsd:documentation>
            </xsd:annotation>
            <xsd:restriction base="xsd:string">
                    <xsd:maxLength value="200"/>
            </xsd:restriction>
        </xsd:simpleType>
```

15.4.4.9   Meter register data removed fields

Field	Path
AdditionalSiteInformation	ElectricityMeter /
AssetManagementPlan	ElectricityMeter /
CalibrationTables	ElectricityMeter /
CommunicationsEquipmentType	ElectricityMeter /
CommunicationsProtocol	ElectricityMeter /

Field	Path
DataConversion	ElectricityMeter /
DataValidations	ElectricityMeter /
EstimationInstructions	ElectricityMeter /
MeasurementType	ElectricityMeter /
Constant	ElectricityMeter /
Point	ElectricityMeter /
Program	ElectricityMeter /
Route	ElectricityMeter /
NextTestDate	ElectricityMeter /
Password	ElectricityMeter /
RemotePhoneNumber	ElectricityMeter /

Field	Path
TestCalibrationProgram	ElectricityMeter /
TestPerformedBy	ElectricityMeter /
TestResultNotes	ElectricityMeter /
TransformerLocation	ElectricityMeter /
TransformerRatio	ElectricityMeter /
TransformerType	ElectricityMeter /
UserAccessRights	ElectricityMeter /

15.4.4.10 Register Identifier removed fields

Field	aseXML Path
Demand1	ElectricityMeterRegisterDetail/Demand1

Field	aseXML Path
Demand2	ElectricityMeterRegisterDetail/Demand2

15.4.5 **ElectricityMasterStandingData_r42.xsd**

15.4.5.1 **NMI standing data changed fields**

Field	Path	r39_p1 xsd:string pattern	r42 xsd:string pattern	Data type	Required	Provider
LocationDescriptor	ElectricityNMIMasterGroup/	[\p{L}\p{N}\p{P}\s]{1,30}	[\p{L}\p{N}\p{P}\s]{1,**200**}	VARCHAR2(200)	Yes	LNSP

15.4.5.2 **LocationDecriptor**

LocationDecriptor length updated from 30 to 200.

```
<xsd:simpleType name="AustralianLocationDescriptor">
          <xsd:annotation>
                  <xsd:documentation>
Purpose - Define location descriptor as per Australian Standard AS4590
Detail - This is a "catch all" field for non-standard address information.
      </xsd:documentation>
```

```
        </xsd:annotation>
        <xsd:restriction base="xsd:string">
            <xsd:pattern value="[\p{L}\p{N}\p{P}\s]{1,200}"/>
        </xsd:restriction>
    </xsd:simpleType>
```

15.4.5.3   NMI standing data new fields

Field	Path	Data type	Required	Provider
SharedIsolationPointFlag	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	xsd:string maxLen = 1 CHAR(1)	Yes	LNSP
MeterMalfunctionExemptionNumber	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	xsd:string maxLen = 8 VARCHAR2(8)	Yes	AEMO
MeterMalfunctionExemptionExpiryDate	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	xsd:date dd-mmm-yyyy	Yes	AEMO
ConnectionConfiguration	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	xsd:string maxLen = 2 VARCHAR2(2)	Yes	LNSP
GNAFPID	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	xsd:string maxLen = 20 VARCHAR2(20)	Yes	LNSP/AEMO
SectionNumber	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	xsd:string maxLen = 20 VARCHAR2(20)	Yes, for NSW and ACT Optional in other jurisdictions	LNSP

Field	Path	Data type	Required	Provider
DPNumber	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	xsd:string maxLen = 20	Yes, for NSW and ACT Optional in other jurisdictions	LNSP
HouseNumberTo	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	xsd:nonNegativeInteger maxIncl = 99999 NUMBER(5)	Yes	LNSP
HouseNumberToSuffix	ElectricityMasterStandingData/ ElectricityNMIMasterGroup/	==xsd:nonNegativeInteger maxIncl = 99999 NUMBER(5)==	==Yes==	==LNSP==
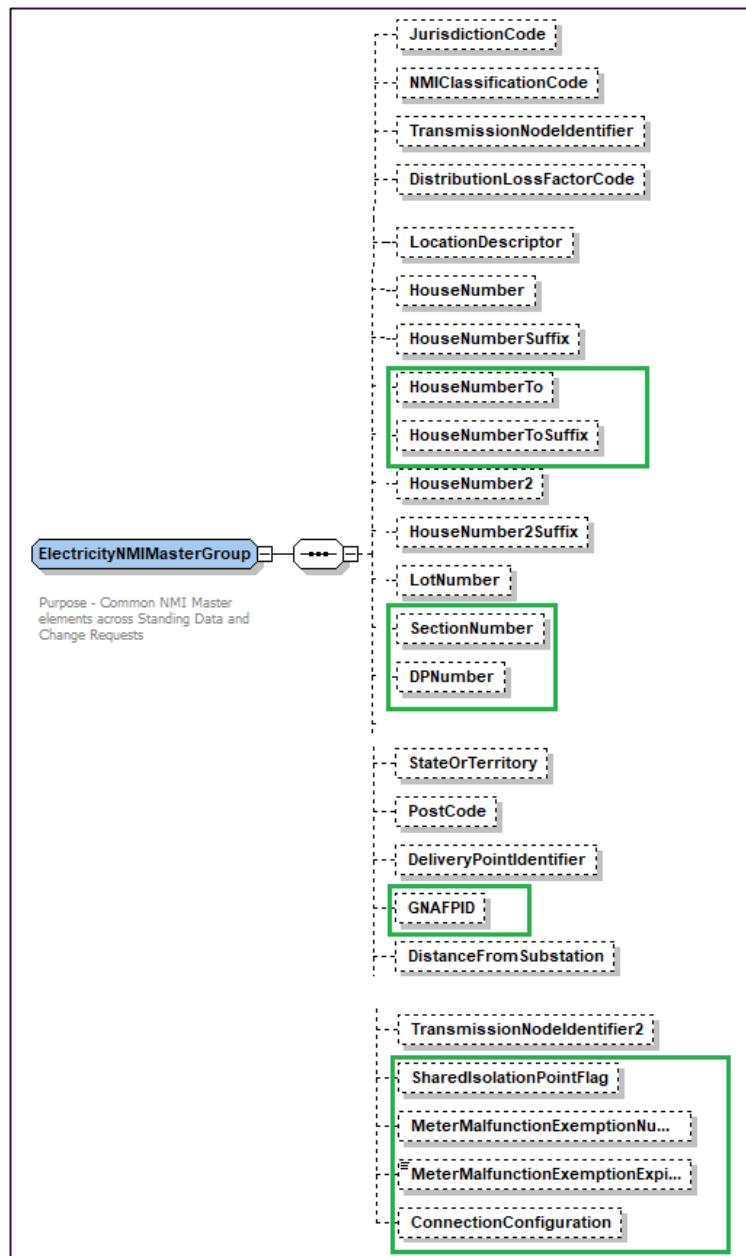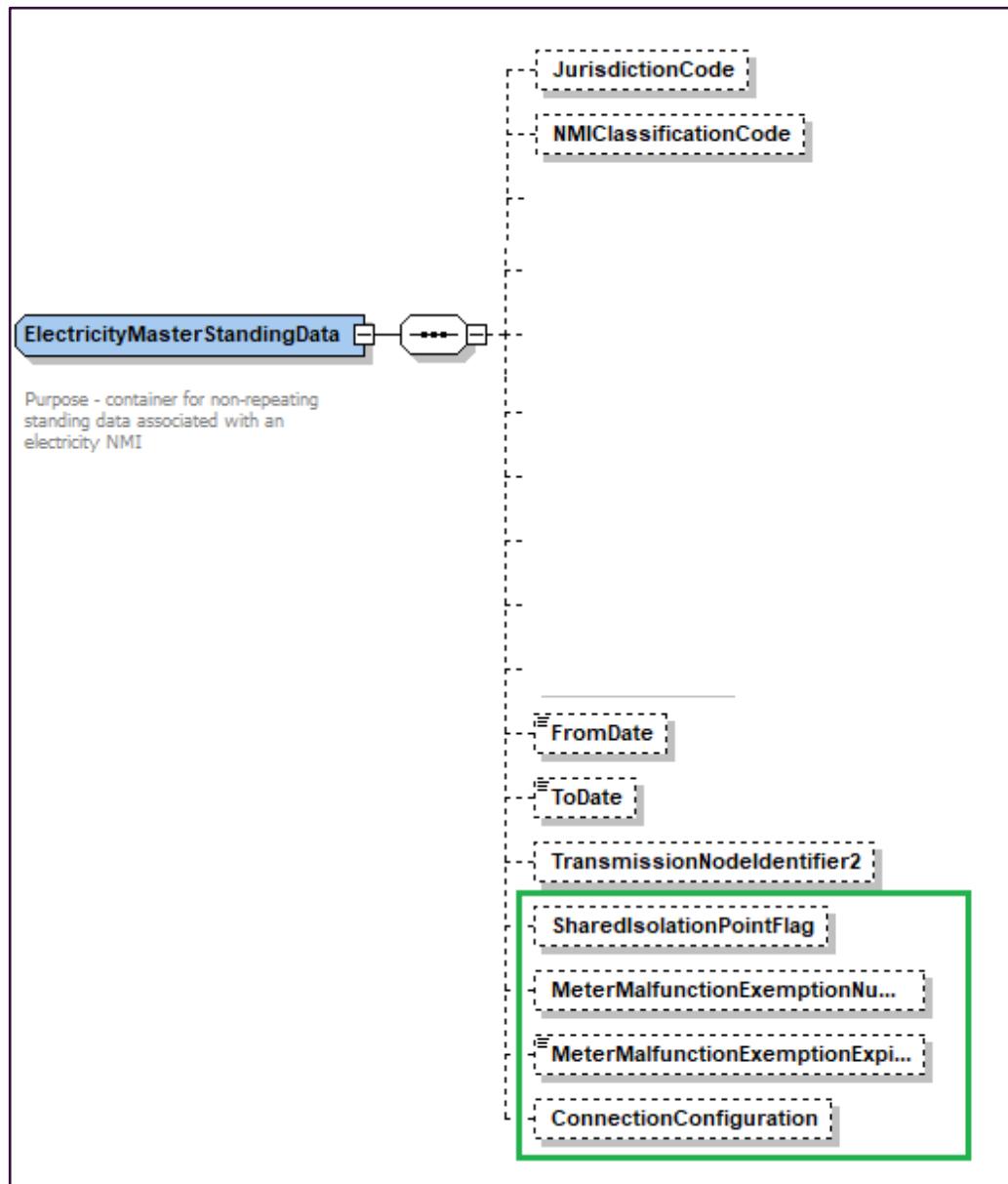
15.4.5.4 ElectricityMasterStandingData

```xml
<xsd:complexType name="ElectricityMasterStandingData">
            <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" minOccurs="0"/>
                <xsd:element name="ConnectionConfiguration" type="ConnectionConfiguration" nillable="true"
minOccurs="0"/>
            </xsd:sequence>
    </xsd:complexType>
```

15.4.5.5   ElectricityNMIMasterGroup

```
        <xsd:group name="ElectricityNMIMasterGroup">
        <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"/>
```

```xml
                        <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:element name="HouseNumber2" type="AustralianHouseNumber" nillable="true"
minOccurs="0"/>
                        <xsd:element name="HouseNumber2Suffix" type="AustralianHouseNumberSuffix" nillable="true"
minOccurs="0"/>
```

```xml
                    <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:sequence>
    </xsd:group>
```

15.4.6 **Events_r42.xsd**

```
    <xsd:simpleType name="r42">
        <xsd:annotation>
            <xsd:documentation>Purpose - Release r42 identifier.</xsd:documentation>
        </xsd:annotation>
        <xsd:restriction base="ReleaseIdentifier">
            <xsd:enumeration value="r42"/>
        </xsd:restriction>
    </xsd:simpleType>
```

16 Proposed Method for Field Updates – Phase 2

Field	Type	Requirement	Updater	Method	Notes
GNAF PID	New	R	AEMO	Internal	Published quarterly by Australia Post
House Number To	New	R	LNSP	CR	Due 12 months after effective date
Meter Malfunction Exemption Expiry Date	New	R	AEMO	Internal	Dependent on automated exemption process
Meter Malfunction Exemption Number	New	R	AEMO	Internal	Dependent on automated exemption process
Section Number	New	R (NSW & ACT) O (other jurisdictions)	LNSP	BUT	Due 12 months after effective date
DP Number	New	R (NSW & ACT) O (other jurisdictions)	LNSP	BUT	Due 12 months after effective date

Field	Type	Requirement	Updater	Method	Notes
Building Or Property Name	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date
Delivery Point Identifier	Amended	R formerly optional	AEMO	Internal	Published quarterly by Australia Post
Feeder Class	Amended	R in QLD where relevant O in other jurisdictions formerly optional	LNSP	CR	Due 12 months after effective date
Flat Or Unit Number	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date
Flat Or Unit Type	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date
Floor Or Level Number	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date
House Number Suffix	Amended	R (formerly address option 1)	LNSP	CR	Due 12 months after effective date
Location Descriptor	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date
Lot Number	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date

Field	Type	Requirement	Updater	Method	Notes
Street Name	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date
Street Suffix	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date
Street Type	Amended	R formerly address option 1	LNSP	CR	Due 12 months after effective date
Controlled Load	Amended	M	MPB	Internal	Due 12 months after effective date
Network Additional Information	Amended	R	MPB	CR	Due 12 months after effective date
Time Of Day	Amended	M	MPB	Internal	Due 12 months after effective date
Connection Configuration	New	M	LNSP	BUT	Due 12 months after effective date
Current Transformer Accuracy Class	New	R Not Used For Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Current Transformer Location	New	R Not Used For Nconuml, Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date

Field	Type	Requirement	Updater	Method	Notes
Current Transformer Ratio Connected	New	R Not Used For Nconuml, Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Current Transformer Ratio Available	New	R Not Used For Nconuml, Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Current Transformer Test	New	R Not Used For Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Current Transformer Test Date	New	R Not Used For Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Current Transformer Type	New	R Not Used For Nconuml, Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Voltage Transformer Accuracy Class	New	R Not Used For Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Voltage Transformer Location	New	R Not Used For Nconuml, Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Voltage Transformer Ratio	New	R Not Used For Nconuml, Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Voltage Transformer Test	New	R Not Used For Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date

Field	Type	Requirement	Updater	Method	Notes
Voltage Transformer Test Date	New	R Not Used For Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Voltage Transformer Type	New	R Not Used For Nconuml, Bulk, Xboundry, and Intercon	MPB	CR	Due 12 months after effective date
Hazard	Amended	Required	MPB	CR	Due 12 months after effective date
Last Test Date	Amended	R	MPB	CR	Due 12 months after effective date
Location	Amended	R	MPB	CR	Due 12 months after effective date
Manufacturer	Amended	M	MPB	Internal	Due 12 months after effective date
Model	Amended	M	MPB	Internal	Due 12 months after effective date
Test Result	Amended	R	MPB	CR	Due 12 months after effective date

Field	Type	Requirement	Updater	Method	Notes
Use	Amended	M	MPB	CR	Due 12 months after effective date
GPS Coordinates Lat	New	R for NMIs with manually read meters for 36 months from effective date of procedures, M after M for NMIs with remotely read meters, new NMIs established from the effective date of the procedures, and all NMIs when they have a physical field site visit R for all other NMIs Not used for NMIs for Type 7 and NCONUML	MPB	BUT	Due 36 months after effective date
GPS Coordinates Long	New	Same GPS Coordinates Lat	MPB	BUT	Due 36 months after effective date

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