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| Schema Release  AseXML Schema Working Group  Release r46 |

April 2025

Draft Release Date: 04 April 2025

Final Release Date: 23 April 2025

Version Control

|  |  |  |
| --- | --- | --- |
| Version | Release date | Changes |
| 0.1 | 20 April 2025 | Creation |
| 0.2 | 23 April 2025 | Finalised after ASWG approval |
|  |  |  |

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# Introduction

Version r46 of the aseXML schema has been developed from r45. This schema release is presented to aseXML Subscribers and Industry Participants for review and to AEMO for approval, in accordance with the ASWG Terms of Reference.

# Change Requests

### Change Description

The proposed changes are listed in the following table.

|  |  |  |  |
| --- | --- | --- | --- |
| **Item#** | **Change Description** | **Change Type** | **GMI #** |
| 1 | Add 4 new fields for NMI standing data for MSR Package 1:   * + LegacyMtrReplacementPlan   + DefectFlag   + DefectType   + DefectIssuingMC   Add the above elements to existing **ElectricityNMIMasterGroup** and **ElectricityMasterStandingData** elements | New | 1 |
| 2 | * Add new Service Order Request subtypes for Supply Service Works (SSW) to support One-in-all-in: * Temporary Isolation-Scoping Request * Temporary Isolation-One In All In * Add new Service Order Request subtypes for Metering Service Works (MSW) to support One-in-all-in:   Install Meter Isolation Device | New | 2 |
| 3 | New and amended enumerations for LMRP and one-in-all-in:   * RegClassification * PurposeOfRequest * ResponseCode   ReasonForNotice | Update | 3 |
| 4 | Modify existing elements for amended fields as part of MSR Package 2 related to B002/22  HazardDescription: Change the maximum length value from 80 to 100. | Update | 4 |
| 5 | As of B002/22 following B2B changes will be implemented:   * FormReference: Change the maximum length value from 30 to 20 character * FormNumber: Change the maximum length value from 15 to 20 character. | Update | 5 |
| 6 | As of ICF-078 & B004/22 following changes will be implemented for B2M and B2B:   * BuildingOrPropertyName: Updated the maximum length from 30 to 50 character. * BuildingOrPropertyName2: This field will be added as an option field both B2M and B2B and Maximum length will be 50 characters. * FloorOrLevelType: Updated the maximum length from 2 to 4 character and 4 new enumerations will be added in the procedure list. Following 4 enumerations will be added in AS4590:   + LL - LOWER LEVEL   + PTHS - PENTHOUSE   + PL - PLATFORM   + PD - PODIUM * StreetName: Updated the maximum length from 30 to 45 character. * FlatOrUnitType: Comments will be added for following 9 enums   + DUPL - DUP - DUPLEX   + FCTY - FY - FACTORY   + FLAT – F - FLAT   + MBTH – MB - MARINE BERTH   + OFFC – OFF - OFFICE   + ROOM - RM - ROOM   + STLL - SL - STALL   + UNIT - U - UNIT   + WHSE - WE – WAREHOUSE * StreetType: Comments are added for 5 enums in the schema to describe the name mapping from AS4590.1:2017 to the aseXML.   + FRTL - FITR - FIRETRAIL   + AV - AVE - AVENUE   + CR - CRES - CRESCENT   + GLDE – GLD - GLADE * PWY – PKWY - PARKWAY | New/Update | 6 |

1. Proposed Changes

**MSR Package 1 New B2M Fields**

As part of Metering Services Review Project, Legacy Meter Retirement Plans (LMRP) will be implemented for a structured 2025–2030 acceleration period. DNSPs will develop and execute LMRP for type 5 and 6 (legacy) metering replacement. This includes a schedule for each 12-month period, commencing 2025 to 2030.

The B2M schema changes required for MSR package 1 are as follows**:**

* **Addition of following new fields to existing ElectricityNMIMasterGroup and ElectricityMasterStandingData:** 
  + **LegacyMtrReplacementPlan**
  + **DefectFlag**
  + **DefectType**
  + **DefectIssuingMC**
* **Update version attribute of following existing elements from r44 to r46:**
  + **ElectricityNMIMasterRow**
  + **ElectricityNMIMasterRowBDT**
  + **ElectricityCATSChangeRequestNMIMasterRow and**
  + **ElectricityStandingData**

**ICF\_078 - B004/22 Amended B2M and B2B Fields**

As part of ICF-078 & B004/22 following changes will be implemented for B2M and B2B:

Common schema changes required are as follows:

* **BuildingOrPropertyName** 
  + **Update AustralianBuildingOrPropertyName element length from 30 to 50 characters.**
* **BuildingOrPropertyName2: This field will be added as an option field both B2M and B2B and Maximum length will be 50 characters.**
  + **Add new element as ‘BuildingOrPropertyName2’ of type ‘AustralianBuildingOrPropertyName’ to existing complex types ‘AustralianStructuredAddressPartialComponents’ and ‘AustralianStructuredAddressComponents’ elements.**
* **FloorOrLevelType:** 
  + **Update ‘AustralianFloorOrLevelType’** **enum length from 2 to 4 characters.**
  + **Add following 4 enums to match the name mapping as per AS4590:**
    - **LL - LOWER LEVEL**
    - **PTHS - PENTHOUSE**
    - **PL - PLATFORM**
    - **PD - PODIUM**
* **StreetName:** 
  + **Updated length of ‘AustralianStreetName’ from 30 to 45 character.**
* **FlatOrUnitType:** 
  + **Add comments for name mapping according to AS4590.1:2017** **to the following 9 enums for ‘AustralianFlatOrUnitType’ type:**
    - **DUPL - DUP - DUPLEX**
    - **FCTY - FY - FACTORY**
    - **FLAT – F - FLAT**
    - **MBTH – MB - MARINE BERTH**
    - **OFFC – OFF - OFFICE**
    - **ROOM - RM - ROOM**
    - **STLL - SL - STALL**
    - **UNIT - U - UNIT**
    - **WHSE - WE – WAREHOUSE**
* **StreetType:** 
  + **Add comments for name mapping according to AS4590.1:2017 to the following 5 enums for ‘AustralianStreetType’ type:**
    - **FRTL - FITR - FIRETRAIL**
    - **AV - AVE - AVENUE**
    - **CR - CRES - CRESCENT**
    - **GLDE – GLD - GLADE**
    - **PWY – PKWY - PARKWAY**

**MSR Package 1 B2B transaction changes – LMRP, Defects, One In All In**

As part of Metering Services Review Project, a number of changes to existing B2B transaction changes have been identified by the IEC.

The B2B schema changes required for MSR package 1 are as follows**:**

* **Add new Service Order Request subtypes for Supply Service Works (SSW) to support One-in-all-in:**
  + **Temporary Isolation-Scoping Request**
  + **Temporary Isolation-One In All In**
* **Add new Service Order Request subtypes for Metering Service Works (MSW) to support One-in-all-in:**
  + **Install Meter Isolation Device**
* **New and amended enumerations to support B2B transactions:**
  + **RegClassification** 
    - **Add 3 new enums:**
* **LMRP**
* **One In All In**
* **Family Failure**
  + **PurposeOfRequest**
    - **Add 1 enum**
* **Remediation Advised**
  + - **Remove 1 enum**
* **Family Failure**
  + **ResponseCode**
    - **Add following new enums:**
* **Defect**
* **Appointment Required**
* **Comms Refused**
* **Coordination Failure**
* **Demolished**
* **Dog**
* **Incorrect Service Order**
* **Mismatch with Standing Data**
* **Natural Event**
* **No Access - Network Support Required**
* **No Adult Present**
* **Not FRMP**
* **Obstruction**
* **Shared Fuse - Scoping Required**
* **Site Not Ready**
* **Unable To Isolate**
* **Unable To Locate Site**
  + **ReasonForNotice**
    - **Add 1 enum**
* **One In All In**

**MSR Package 1 B002/22 – ICF Amended B2B Fields**

As part of B002/22 following changes will be implemented for B2B:

Schema changes required are as follows:

* **FormReference: Decrease the maximum length value from 30 to 20 character.**
* **FormNumber: Increase the maximum length value from 15 to 20 character.**
* **HazardDescription: Increase the maximum length value from 80 to 100.**

## Reason for Change

To enable an acceleration of installation of smart meters, the rule outlines a regulatory change that requires Distribution Network Service Providers to gradually phase out their type 5 and type 6 meters (legacy meters) from 2025 to 2030 through a Legacy Meter Replacement Plan (LMRP).

To facilitate the accelerated deployment of smart meters, the LMRP will be strengthened with new requirements for sites with defects and shared isolation. Sites identified with defects are a barrier to the deployment of smart meters. The rule requires a formal defect tracking process which will require MCs to record a defect and for retailers to record customer notifications. In addition, there will be new obligations for industry coordination between DNSPs, Retailers and Metering Coordinators for sites with shared fuse replace legacy meters with smart meters. To streamline the process, retailer notifications to customers will be reduced from two to one, and the opt-out provision will be removed.

Finally, the rule requires AEMO to develop an asset management strategy to ensure MCs have a testing and inspection strategy in place to assess meter accuracy, having regard to the costs and benefits to consumers.

Work Package 2 changes will be implemented to align the address standard in B2M Procedures with the AS4590.1:2017 standard, superseding the current NEM addressing, which is based on the AS4590-1999 standard. This will resolve discrepancies related to field length, enumerated values etc.

This initiative will:

* Ensure accurate, complete address data, leading to better service delivery and customer trust.
* Harmonize data standards between B2B and B2M, reducing operational errors and the potential for data discrepancies, leading to cost savings.

Schema changes are implemented to cater the following project requirements for MSR:

Accelerating Smart Meter Role Out including LMRP, site defects, one-in-all-in processes and matters critical to the go-live commencement.

ICFs including auto population of LCCD and alignment of address to AS4590.1.2017, B2M and B2B field alignment.

## Supplied Documents

### GRCF Gas Retail GMIs requiring this Change Request

### Business process document

The consulation for the October 2025 release is being run by both AEMO and the IEC through the B2B Working Group. While the final report for both these consulations is yet to be published, AEMO has based CR75 on the finalised, but unpublished version of the documents in Table 3. The rational behind seeking approval from the ASWG for a schema version prior to the publishing of the final is to provide as much time as possible to participants to progress their system changes.

|  |  |  |
| --- | --- | --- |
| **Market Segment** | **Work Package** | **Final Procedure** |
| NEM B2M | MSR Package 1 | [Metering Services Review Package 1 Final Determination (Final Stage)](https://aemo.com.au/consultations/current-and-closed-consultations/2024-metering-services-review-package-1)   * Standing Data for MSATS v6.1 * [Standing Data for MSATS v6.2](https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2024/2024-metering-services-review-package-1/metering-services-review/standing-data-for-msats-v61-change-marked-1.pdf?la=en&hash=25DAA59D1E86D5FA6024F437F40E2BFE) * MSATS Procedures - Principles and Obligations for All Connection Points v7.0 * [MSATS Procedures - Principles and Obligations for All Connection Points v7.1](https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2024/2024-metering-services-review-package-1/metering-services-review/msats-procedures--principles-and-obligations-for-all-connection-points-v71-change-marked-2.pdf?la=en&hash=CD62650C28B4D22684B99F6F2C695FC8) |
| NEM B2B | MSR Package 1 | [B2B Procedures v3.9 (Final Stage)](https://aemo.com.au/consultations/current-and-closed-consultations/b2b-procedures-v39)   * [B2B Procedure One Way Notification Process v3.9](https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2024/b2b-procedures-v39/second-stage-consultation/b2b-procedure-one-way-notification-process-v39-change-marked-draft.pdf?la=en) * [B2B Procedure Service Order Process v3.9](https://aemo.com.au/consultations/current-and-closed-consultations/b2b-procedures-v39) * B2B Procedure Technical Delivery Specification v3.9 * B2B Procedures Customer and Site Details Notification Process v3.9 |
| IEC - B002/22 B2B Working Group Enhancement | [B2B Procedures v3.9 (Final Stage)](https://aemo.com.au/consultations/current-and-closed-consultations/b2b-procedures-v39)   * [B2B Procedure Service Order Process v3.9](https://aemo.com.au/consultations/current-and-closed-consultations/b2b-procedures-v39) * B2B Procedure Technical Delivery Specification v3.9 * B2B Procedure Customer and Site Details Notification Process v3.9 |
| Common | ICF\_078 ERCF Enhancement  IEC - B004/22 B2B Working Group Enhancement | [Metering Services Review Package 1 Final Determination (Final Stage)](https://aemo.com.au/consultations/current-and-closed-consultations/2024-metering-services-review-package-1)   * [Standing Data for MSATS v6.2](https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2024/2024-metering-services-review-package-1/metering-services-review/standing-data-for-msats-v61-change-marked-1.pdf?la=en&hash=25DAA59D1E86D5FA6024F437F40E2BFE) * [MSATS Procedures - Principles and Obligations for All Connection Points v7.1](https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2024/2024-metering-services-review-package-1/metering-services-review/msats-procedures--principles-and-obligations-for-all-connection-points-v71-change-marked-2.pdf?la=en&hash=CD62650C28B4D22684B99F6F2C695FC8)   [B2B Procedures v3.9 (Final Stage)](https://aemo.com.au/consultations/current-and-closed-consultations/b2b-procedures-v39)   * [B2B Procedure Service Order Process v3.9](https://aemo.com.au/consultations/current-and-closed-consultations/b2b-procedures-v39) * B2B Procedure Technical Delivery Specification v3.9 |

# Impact Summary

This table identifies the files, transactions and versioned types that are potentially impacted as the result of these changes, where:

* Modified types - is a full list of types changed by this Change Request
* Derived types – is a list of any types that are derived from a modified type, and are therefore also modified by default
* Versioned types affected – is a list of all versioned types that will need to have the version attribute updated as a result of this Change Request
* Transactions potentially affected – is a list of all transactions that contain a modified type, either directly or via a type substitution
* Schema files affected – is a list of schema files that will be changed in some way as a result of this Change Request.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Modified types** | **Derived types** | **Versioned types affected** | **Transactions potentially affected** | **Schema files affected** |
|  |  |  |  | aseXML\_r46.xsd |
| r46 |  |  |  | Events\_r46.xsd |
| ElectricityNMIMasterRow  ElectricityNMIMasterRowBDT  ElectricityCATSChangeRequestNMIMasterRow |  | ElectricityNMIMasterRow  ElectricityNMIMasterRowBDT  ElectricityCATSChangeRequestNMIMasterRow | ReplicationNotification  CATSBulkDataResponse | CATSTableReplication\_r46.xsd |
| AustralianBuildingOrPropertyName  AustralianStreetName | AustralianStructuredAddressPartialComponents  AustralianStructuredAddressComponents |  | CustomerDetailsNotification  LifeSupportNotification  ServiceOrderRequest  ServiceOrderResponse  CATSChangeRequest  CATSNotification  ReportResponse  ReplicationNotification  StandingDataResponse  NMIDiscoveryResponse  NMIDiscoveryRequest  AmendMeterRouteDetails/AmendSiteAccessDetails  AccountCreationNotification | ClientInformation\_r46.xsd |
| HazardDescription |  |  | SiteAccessNotification  ServiceOrderRequest  CATSChangeRequest  CATSNotification  ReportResponse  ReplicationNotification  StandingDataResponse  NMIDiscoveryResponse  AmendMeterRouteDetails/AmendSiteAccessDetails  AccountCreationNotification | Common\_r46.xsd |
| FormReference  FormNumber | DocumentReferenceType |  | ServiceOrderRequest | Electricity\_r46.xsd |
| ServiceOrderSubType  SORDResponseCode |  | ElectricityServiceOrderType  ElectricityServiceOrderDetails  ElectricityServiceOrderNotificationData  ElectricityStandingData | ServiceOrderRequest  ServiceOrderResponse | Electricity\_r46.xsd |
| ElectricityServiceOrderDetails - RegClassification  PurposeOfRequest  ReasonForNotice | ElectricityServiceOrderDetails |  | ServiceOrderRequest | ElectricityEnumerations.xsd |
| ElectricityNMIMasterGroup  ElectricityMasterStandingData  (DefectFlag, DefectType, LegecyMtrReplacementPlan and DefectIssuingMC) | ElectricityCATSChangeRequestNMIMasterRow  ElectricityNMIMasterRowBDT  ElectricityNMIMasterRow | ElectricityStandingData | CATSChangeRequest  CATSNotification  ReportResponse  ReplicationNotification  StandingDataResponse  NMIDiscoveryResponse | ElectricityMasterStandingData\_r46.xsd |
| AustralianFlatOrUnitType  AustralianFloorOrLevelType  AustralianStreetType | AustralianStructuredAddressPartialComponents  AustralianStructuredAddressComponents |  | CustomerDetailsNotification  LifeSupportNotification  ServiceOrderRequest  ServiceOrderResponse  CATSChangeRequest  CATSNotification  ReportResponse  ReplicationNotification  StandingDataResponse  NMIDiscoveryResponse  NMIDiscoveryRequest  AmendMeterRouteDetails/AmendSiteAccessDetails  AccountCreationNotification | Enumerations.xsd |
|  |  | MeterFaultAndIssueNotification |  | OneWayNotification\_r46.xsd |

# File Change Summary

The following file changes are implemented to create the r46 schema version

## aseXML

Changed aseXML namespace to urn:aseXML:r46

## Changes

The following changes have been implemented in this draft:

|  |  |  |  |
| --- | --- | --- | --- |
| **Chg #** | **Item #** | **Description of change** | **Filename** |
| 1 |  | * Replace version of schema from r45 to r46   Rename file to r46 version. | aseXML\_r46.xsd |
| 2 |  | * Registration of r46 release   Rename file to r46 version. | Events\_r46.xsd |
| 3 | 1 | * Update version attribute of following existing elements from r43 to r46:   + ElectricityNMIMasterRow   + ElectricityNMIMasterRowBDT   + ElectricityCATSChangeRequestNMIMasterRow * Rename file to r46 version | CATSTableReplication\_r46.xsd |
| 4 | 6 | * Increase length of AustralianBuildingOrPropertyName from 30 to 50 * Increase length of AustralianStreetName from 30 to 45 * Add a new element BuildingOrPropertyName2 to existing complex type AustralianStructuredAddressPartialComponents * Add a new element BuildingOrPropertyName2 to existing complex type AustralianStructuredAddressComponents   Rename file to r46 version | ClientInformation\_r46.xsd |
| 5 | 4 | * Increase length of HazardDescription from 80 to 100   Rename file to r46 version | Common\_r46.xsd |
| 6 | 1,2,5 | * Add new element ‘DefectFlag’ as string type with length=1 * Add new element ‘DefectType’ as string type with length=15 * Add 3 new ServiceOrderSubType * Decrease length of FormReference from 30 to 20 * Increase length of FormNumber from 15 to 20 * Add new enums to SORDResponseCode * Update version attribute of following existing elements:   + ElectricityStandingData (r43 to r46)   + ElectricityServiceOrderType (r36 to r46)   + ElectricityServiceOrderDetails (r41 to r46)   + ElectricityServiceOrderNotificationData (r36 to r46)   Rename file to r46 version | Electricity\_r46.xsd |
| 7 | 3 | * Added 3 new enums to RegClassification:   + Family Failure   + LMRP   + One In All In * Added 1 new enum to PurposeOfRequest:   + Remediation Advised * Removed 1 new enum to PurposeOfRequest:   + Family Failure * Added 1 new enum to ReasonForNotice:   + One In All In | ElectricityEnumerations.xsd |
| 8 | 1 | * Add 4 new elements to ElectricityNMIMasterGroup and ElectricityMasterStandingData   + LegacyMtrReplacementPlan   + DefectFlag   + DefectType   + DefectIssuingMC   Rename file to r46 version. | ElectricityMasterStandingData\_r46.xsd |
| 9 | 6 | * Add comments for 9 enums to match name mapping for AustralianFlatOrUnitType   + DUPL - DUP - DUPLEX   + FCTY - FY - FACTORY   + FLAT - F - FLAT   + MBTH - MB - MARINE BERTH   + OFFC - OFF - OFFICE   + ROOM - RM - ROOM   + STLL - SL - STALL   + UNIT - U - UNIT   + WHSE - WE – WAREHOUSE * Increase length of AustralianFloorOrLevelType from 2 to 4 * Added 4 new enums to AustralianFloorOrLevelType:   + LL - LOWER LEVEL   + PTHS - PENTHOUSE   + PL - PLATFORM   + PD - PODIUM * Add comments for 5 enums to match name mapping for AustralianStreetType   + FRTL - FITR - FIRETRAIL   + AV - AVE - AVENUE   + CR - CRES - CRESCENT   + GLDE - GLD - GLADE   PWY - PKWY - PARKWAY | Enumerations.xsd |
| 10 | 2 | Update version attribute of MeterFaultAndIssueNotification existing elements from r36 to r46 | OneWayNotification\_r46.xsd |

1. Change Log

### Schema change description

#### aseXml\_r46.xsd

* New file to replace aseXML\_r45.xsd and include the r46 file versions listed below.

<xsd:schema xmlns="urn:aseXML:r46" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" targetNamespace="urn:aseXML:r46" version="r46" xsi:schemaLocation="urn:aseXML:r46 aseXML\_r46.xsd">

<xsd:include schemaLocation="CATSTableReplication\_r46.xsd">

<xsd:include schemaLocation="ClientInformation\_r46.xsd">

<xsd:include schemaLocation="Common\_r46.xsd">

<xsd:include schemaLocation="Electricity\_r46.xsd">

<xsd:include schemaLocation="ElectricityMasterStandingData\_r46.xsd"/>

<xsd:include schemaLocation="Events\_r46.xsd">

<xsd:include schemaLocation="OneWayNotification\_r46.xsd">

#### CATSTableReplication\_r46.xsd

* Updated version attribute of following existing elements from r43 to r46:
  + ElectricityNMIMasterRow
  + ElectricityNMIMasterRowBDT
  + ElectricityCATSChangeRequestNMIMasterRow
* Rename file to r46 version.

<!-- Electricity NMI Standing Data Replication Row Types -->

<xsd:complexType name="ElectricityNMIMasterRow">

<xsd:annotation>

<xsd:documentation>

Purpose - Row of the Electricity NMI Master Standing Data table

MSATS Data Model Table - CATS\_NMI\_Data

Replication Table Name - ElectricityNMIMaster

</xsd:documentation>

</xsd:annotation>

<xsd:complexContent>

<xsd:extension base="ReplicationDateRangeRow">

<xsd:sequence>

<xsd:element name="NMI" type="NMIBase"/>

<xsd:group ref="ElectricityNMIMasterGroup"/>

</xsd:sequence>

<xsd:attribute name="version" type="r46" use="optional" default="r46"/>

</xsd:extension>

</xsd:complexContent>

</xsd:complexType>

<!-- BDT Row Types -->

<xsd:complexType name="ElectricityNMIMasterRowBDT">

<xsd:annotation>

<xsd:documentation>

Purpose - Row of the Electricity NMI Master Standing Data table extended by BDTStatus and Event for Bulk Data Tool

MSATS Data Model Table - CATS\_NMI\_Data

Replication Table Name - ElectricityNMIMaster

</xsd:documentation>

</xsd:annotation>

<xsd:complexContent>

<xsd:extension base="ReplicationDateRangeRow">

<xsd:sequence>

<xsd:group ref="ElectricityNMIMasterGroup"/>

<xsd:element name="BDTStatus" type="BDTStatus" minOccurs="0"/>

<xsd:element name="Event" type="Event" minOccurs="0" maxOccurs="unbounded"/>

</xsd:sequence>

<xsd:attribute name="version" type="r46" use="optional" default="r46"/>

</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>

</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="r46" use="optional" default="r46"/>

</xsd:extension>

</xsd:complexContent>

</xsd:complexType>

#### ClientInformation\_r46.xsd

* Increase length of AustralianBuildingOrPropertyName from 30 to 50.
* Increase length of AustralianStreetName from 30 to 45.
* Add a new element BuildingOrPropertyName2 to existing complex type AustralianStructuredAddressPartialComponents.
* Add a new element BuildingOrPropertyName2 to existing complex type AustralianStructuredAddressComponents.
* Rename file to r46 version

<xsd:simpleType name="AustralianBuildingOrPropertyName">

<xsd:annotation>

<xsd:documentation>

Purpose - Define building or property name as per Australian Standard AS4590

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:minLength value="1"/>

<xsd:maxLength value="50"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="AustralianStreetName">

<xsd:annotation>

<xsd:documentation>

Purpose - Define street name as per Australian Standard AS4590

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:pattern value="[\p{L}\p{N}\s\-']{1,45}"/>

</xsd:restriction>

</xsd:simpleType>

<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="BuildingOrPropertyName2" type="AustralianBuildingOrPropertyName" nillable="true" minOccurs="0"/>

<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"/>

<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: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>

</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="BuildingOrPropertyName2" type="AustralianBuildingOrPropertyName" nillable="true" minOccurs="0"/>

<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"/>

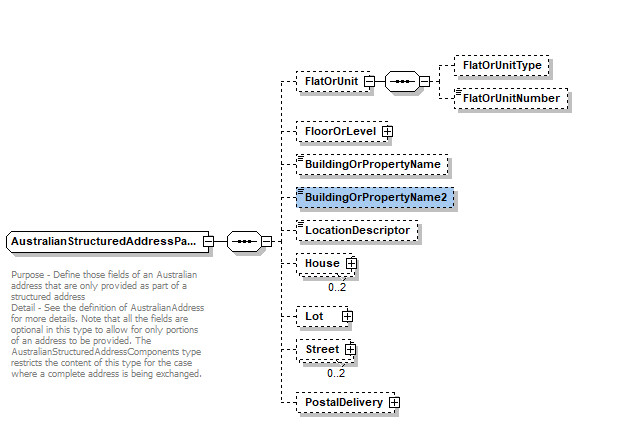
<xsd:element name="HouseNumberTo" type="AustralianHouseNumber" nillable="true" minOccurs="0"/>

<xsd:element name="HouseNumberToSuffix" type="AustralianHouseNumberSuffix" nillable="true"

minOccurs="0"/>

</xsd:sequence>

</xsd:complexType>



#### Common\_r46.xsd

* Increase length of HazardDescription from 80 to 100
* Rename file to r46 version

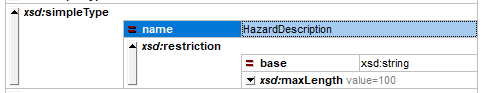
<xsd:simpleType name="HazardDescription">

<xsd:restriction base="xsd:string">

<xsd:maxLength value="100"/>

</xsd:restriction>

</xsd:simpleType>



#### Electricity\_r46.xsd

* Add new element ‘DefectFlag’ as string type with length=1
* Add new element ‘DefectType’ as string type with length=15
* Decrease length of FormReference from 30 to 20
* Increase length of FormNumber from 15 to 20
* Add 3 new ServiceOrderSubType
  + Install Meter Isolation Device
  + Temporary Isolation-Scoping Request
  + Temporary Isolation-One In All In
* Add following new enum types for SORDResponseCode
  + Defect
  + Appointment Required
  + Comms Refused
  + Coordination Failure
  + Demolished
  + Dog
  + Incorrect Service Order
  + Mismatch with Standing Data
  + Natural Event
  + No Access - Network Support Required
  + No Adult Present
  + Not FRMP
  + Obstruction
  + Shared Fuse - Scoping Required
  + Site Not Ready
  + Unable To Isolate
  + Unable To Locate Site
* Update version attribute of following existing elements from r36 to r46:
  + ElectricityServiceOrderType
  + ElectricityServiceOrderNotificationData
* Update version attribute of following existing elements from r41 to r46:
  + ElectricityServiceOrderDetails
* Update version attribute of following existing elements from r43 to r46:
  + ElectricityStandingData
* Rename file to r46 version

<xsd:simpleType name="DefectFlag">

<xsd:annotation>

<xsd:documentation>

Purpose - Flag to indicate if the metering coordinator encounter customer-site defects preventing meter exchanges

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="1"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="DefectType">

<xsd:annotation>

<xsd:documentation>

Purpose - Indicates what type of customer-site defect which prevents meter exchanges encountered by the metering coordinator

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="15"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:complexType name="DocumentReferenceType">

<xsd:sequence>

<xsd:element name="FormReference" minOccurs="0">

<xsd:simpleType>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="20"/>

</xsd:restriction>

</xsd:simpleType>

</xsd:element>

<xsd:element name="FormNumber" minOccurs="0">

<xsd:simpleType>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="20"/>

</xsd:restriction>

</xsd:simpleType>

</xsd:element>

</xsd:sequence>

</xsd:complexType>

<xsd:simpleType name="ServiceOrderSubType">

<xsd:annotation>

<xsd:documentation>Purpose - Defines a list of valid Service Order types supported by the particpants</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:enumeration value="After Disconnection For Non-Payment"/>

<xsd:enumeration value="Remove Fuse"/>

<xsd:enumeration value="Disconnect at Pillar-Box Pit Or Pole-Top"/>

<xsd:enumeration value="Install Controlled Load"/>

<xsd:enumeration value="Move Meter"/>

<xsd:enumeration value="Install Meter"/>

<xsd:enumeration value="Install Meter Isolation Device"/>

<xsd:enumeration value="Remove Meter"/>

<xsd:enumeration value="Exchange Meter"/>

<xsd:enumeration value="Check Read"/>

<xsd:enumeration value="Final Read"/>

<xsd:enumeration value="Allocate NMI"/>

<xsd:enumeration value="Establish Permanent Supply"/>

<xsd:enumeration value="Establish Temporary Supply"/>

<xsd:enumeration value="Establish Temporary In Permanent"/>

<xsd:enumeration value="Local Meter Disconnection"/>

<xsd:enumeration value="Meter Investigation-Inspect"/>

<xsd:enumeration value="Meter Investigation-Test"/>

<xsd:enumeration value="Meter Reconfiguration"/>

<xsd:enumeration value="Recipient Discretion"/>

<xsd:enumeration value="Remote"/>

<xsd:enumeration value="Supply Abolishment"/>

<xsd:enumeration value="Supply Alteration"/>

<xsd:enumeration value="Tariff Change"/>

<xsd:enumeration value="Temporary Isolation"/>

<xsd:enumeration value="Temporary Isolation-Group Supply"/>

<xsd:enumeration value="Temporary Isolation-Scoping Request"/>

<xsd:enumeration value="Temporary Isolation-One In All In"/>

<xsd:enumeration value="Change Timeswitch Settings"/>

<xsd:enumeration value="Reseal Device"/>

<xsd:enumeration value="Retrospective Move-in"/>

<xsd:enumeration value="Move-in"/>

<xsd:enumeration value="New Reading Required"/>

<xsd:enumeration value="Physical Visit"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="SORDResponseCode">

<xsd:annotation>

<xsd:documentation>Purpose - Defines a list of valid response code for different types of service orders</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:enumeration value="Customer On-Site"/>

<xsd:enumeration value="Customer Prevented"/>

<xsd:enumeration value="De-energisation Not Completed Due To A Re-energisation"/>

<xsd:enumeration value="Documentation Not Provided"/>

<xsd:enumeration value="Metering Problem"/>

<xsd:enumeration value="Meter Reading Only Undertaken Due To Prior Re-energisation"/>

<xsd:enumeration value="New Customer On-Site"/>

<xsd:enumeration value="No Supply"/>

<xsd:enumeration value="Other"/>

<xsd:enumeration value="Reading Problem"/>

<xsd:enumeration value="Request Submitted By Another Initiator"/>

<xsd:enumeration value="Initiator Cancellation"/>

<xsd:enumeration value="Sensitive Load"/>

<xsd:enumeration value="Recipient Cancellation"/>

<xsd:enumeration value="Unable To Access"/>

<xsd:enumeration value="Unknown Load"/>

<xsd:enumeration value="Unsafe"/>

<xsd:enumeration value="Tariff Change Not Approved"/>

<xsd:enumeration value="Inadequate infrastructure"/>

<xsd:enumeration value="No Comms"/>

<xsd:enumeration value="Life Support"/>

<xsd:enumeration value="Meter Not Retrieved"/>

<xsd:enumeration value="Metering not compatible with proposed Tariff Change"/>

<xsd:enumeration value="Shared Supply Point"/>

<xsd:enumeration value="Site Already Energised"/>

<xsd:enumeration value="Unknown Connection Status"/>

<xsd:enumeration value="Defect"/>

<xsd:enumeration value="Appointment Required"/>

<xsd:enumeration value="Comms Refused"/>

<xsd:enumeration value="Coordination Failure"/>

<xsd:enumeration value="Demolished"/>

<xsd:enumeration value="Dog"/>

<xsd:enumeration value="Incorrect Service Order"/>

<xsd:enumeration value="Mismatch with Standing Data"/>

<xsd:enumeration value="Natural Event"/>

<xsd:enumeration value="No Access - Network Support Required"/>

<xsd:enumeration value="No Adult Present"/>

<xsd:enumeration value="Not FRMP"/>

<xsd:enumeration value="Obstruction"/>

<xsd:enumeration value="Shared Fuse - Scoping Required"/>

<xsd:enumeration value="Site Not Ready"/>

<xsd:enumeration value="Unable To Isolate"/>

<xsd:enumeration value="Unable To Locate Site"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:complexType name="ElectricityServiceOrderType">

<xsd:complexContent>

<xsd:extension base="ServiceOrderTypeBase">

<xsd:sequence>

<xsd:element name="WorkType">

<xsd:complexType>

<xsd:simpleContent>

<xsd:extension base="ServiceOrderType">

<xsd:attribute name="workSubType" type="ServiceOrderSubType" use="optional"/>

</xsd:extension>

</xsd:simpleContent>

</xsd:complexType>

</xsd:element>

</xsd:sequence>

<xsd:attribute name="version" type="r46" use="optional" default="r46"/>

</xsd:extension>

</xsd:complexContent>

</xsd:complexType>

<xsd:complexType name="ElectricityServiceOrderDetails">

<xsd:annotation>

<xsd:documentation>Purpose - Defines the data type for new connection and meter additions and alterations

v36.1. WL. Change LifeSupport to be optional field.

</xsd:documentation>

</xsd:annotation>

<xsd:complexContent>

<xsd:extension base="ServiceOrderRequestData">

<xsd:sequence>

<xsd:element name="CustomerConsultationRequired" type="xsd:boolean"/>

<xsd:element name="InstallationType" type="InstallationType" minOccurs="0"/>

<xsd:element name="SupplyPhase" type="SupplyPhase" minOccurs="0"/>

<xsd:element name="AverageDailyLoad" type="AveragedDailyLoad" minOccurs="0"/>

<xsd:element name="CustomerType" type="CustomerType" minOccurs="0"/>

<xsd:element name="MeteringType" type="MeteringType" minOccurs="0"/>

<xsd:element name="OffPeakRequirements" type="SpecialComments" minOccurs="0"/>

<xsd:element name="MaximumDemand" type="MeterDemand" minOccurs="0"/>

<xsd:element name="ServiceTime" type="ServiceTimeType" minOccurs="0"/>

<xsd:element name="SwitchingServiceRequired" type="SwitchingServiceRequired" minOccurs="0"/>

<xsd:element name="ConfirmedDe-energisation" type="xsd:boolean" minOccurs="0"/>

<xsd:element name="License" type="License" minOccurs="0"/>

<xsd:element name="MeterLicense" type="License" minOccurs="0"/>

<xsd:element name="De-energisationReason" type="De-energisationReason" minOccurs="0"/>

<xsd:element name="LifeSupport" type="YesNo" minOccurs="0"/>

<xsd:element name="Co-ordinationRequired" type="YesNo" minOccurs="0"/>

<xsd:element name="RegClassification" type="RegClassification" minOccurs="0"/>

<xsd:element name="PurposeOfRequest" type="PurposeOfRequest" minOccurs="0"/>

<xsd:element name="Escalation" type="Escalation" minOccurs="0"/>

<xsd:element name="ExemptionCode" type="xsd:string" minOccurs="0"/>

</xsd:sequence>

<xsd:attribute name="version" type="r46" use="optional" default="r46"/>

</xsd:extension>

</xsd:complexContent>

</xsd:complexType>

<xsd:complexType name="ElectricityServiceOrderNotificationData">

<xsd:annotation>

<xsd:documentation>Schema - Electricity</xsd:documentation>

</xsd:annotation>

<xsd:complexContent>

<xsd:extension base="ServiceOrderNotificationData">

<xsd:sequence>

<xsd:element name="ServiceOrderStatus" type="ServiceOrderStatus"/>

<xsd:element name="ResponseCode" type="SORDResponseCode" minOccurs="0"/>

<xsd:element name="ActualDateTime" type="xsd:dateTime"/>

<xsd:element name="Product" type="Product"/>

</xsd:sequence>

<xsd:attribute name="version" type="r46" use="optional" default="r46"/>

</xsd:extension>

</xsd:complexContent>

</xsd:complexType>

<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="r46" use="optional" default="r46"/>

</xsd:extension>

</xsd:complexContent>

#### ElectricityEnumerations.xsd

* Added 3 new enums to RegClassification:
  + Family Failure
  + LMRP
  + One In All In
* Added 1 new enum to PurposeOfRequest:
  + Remediation Advised
* Removed 1 new enum to PurposeOfRequest:
  + Family Failure
* Added 1 new enum to ReasonForNotice:
  + One In All In

<xsd:simpleType name="RegClassification">

<xsd:annotation>

<xsd:documentation>

Purpose - Use to indicate whether it is customer Initiated and regulatory timeframes apply, or not.

Version 1.0 additions

- Customer Initiated

- Malfunction

- New Meter Deployment

- Shared Fuse

- Other

Version 2.0 additions

- Family Failure

- LMRP

- One In All In

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="40"/>

<xsd:enumeration value="Customer Initiated"/>

<xsd:enumeration value="Family Failure"/>

<xsd:enumeration value="LMRP"/>

<xsd:enumeration value="Malfunction"/>

<xsd:enumeration value="New Meter Deployment"/>

<xsd:enumeration value="One In All In"/>

<xsd:enumeration value="Shared Fuse"/>

<xsd:enumeration value="Other"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="PurposeOfRequest">

<xsd:annotation>

<xsd:documentation>

Purpose - Used to clearly indicate the purpose of visit

Version 1.0 additions

- New connection

- Additional Meter

- Part of BTS Temp to Perm

- Part of supply alteration

- Bidirectional flows at premises

- Bypassed Customer

- Communications Remove

- Communications Install

- Revenue Protection

- Site Abolishment

- Family Failure

- Fault

- Retailer Led

- None

- Other

Version 2.0 addition

- Remediation Advised

Version 2.0 deletion

- Family Failure

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="40"/>

<xsd:enumeration value="New connection"/>

<xsd:enumeration value="Additional Meter"/>

<xsd:enumeration value="Part of BTS Temp to Perm"/>

<xsd:enumeration value="Part of supply alteration"/>

<xsd:enumeration value="Bidirectional flows at premises"/>

<xsd:enumeration value="Bypassed Customer"/>

<xsd:enumeration value="Communications Remove"/>

<xsd:enumeration value="Communications Install"/>

<xsd:enumeration value="Revenue Protection"/>

<xsd:enumeration value="Site Abolishment"/>

<xsd:enumeration value="Fault"/>

<xsd:enumeration value="Remediation Advised"/>

<xsd:enumeration value="Retailer Led"/>

<xsd:enumeration value="None"/>

<xsd:enumeration value="Other"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="ReasonForNotice">

<xsd:annotation>

<xsd:documentation>

Purpose - Define the fixed Reasons for Notice

Version 1.0 additions

- Meter Family Failure

- Accuracy Failure

- Timeswitch/Controlled Load Failure

- Contactor Failure

- No Display

- Communication Failure

- Meter Verification

- Malfunction

- Area Event

- Metrology Threshold Breach

- Meter Bypassed

- Physical Damage

- Theft/Tampering

- Other

Version 2.0 additions

- One In All In

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="50"/>

<xsd:enumeration value="Meter Family Failure"/>

<xsd:enumeration value="Accuracy Failure"/>

<xsd:enumeration value="Timeswitch/Controlled Load Failure"/>

<xsd:enumeration value="Contactor Failure"/>

<xsd:enumeration value="No Display"/>

<xsd:enumeration value="Communication Failure"/>

<xsd:enumeration value="Meter Verification"/>

<xsd:enumeration value="Malfunction"/>

<xsd:enumeration value="One In All In"/>

<xsd:enumeration value="Area Event"/>

<xsd:enumeration value="Metrology Threshold Breach"/>

<xsd:enumeration value="Meter Bypassed"/>

<xsd:enumeration value="Physical Damage"/>

<xsd:enumeration value="Theft/Tampering"/>

<xsd:enumeration value="Other"/>

</xsd:restriction>

</xsd:simpleType>

#### ElectricityMasterStandingData\_r46.xsd

* Add 4 new elements ‘LegacyMtrReplacementPlan’, ‘DefectFlag’, ‘DefectType’, ‘DefectIssuingMC’ to ElectricityNMIMasterGroup and ElectricityMasterStandingData
* Rename file to r46 version.

<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"/>

<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"/>

<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" nillable="true" minOccurs="0"/>

<xsd:element name="ConnectionConfiguration" type="ConnectionConfiguration" nillable="true" minOccurs="0"/>

<xsd:element name="LastConsumerChangeDate" type="xsd:date" nillable="true" minOccurs="0"/>

<xsd:element name="LegacyMtrReplacementPlan" type="xsd:date" nillable="true" minOccurs="0"/>

<xsd:element name="DefectFlag" type="DefectFlag" nillable="true" minOccurs="0"/>

<xsd:element name="DefectType" type="DefectType" nillable="true" minOccurs="0"/>

<xsd:element name="DefectIssuingMC" type="PartyIdentifier" nillable="true" minOccurs="0"/>

</xsd:sequence>

</xsd:group>

<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" nillable="true" minOccurs="0"/>

<xsd:element name="ConnectionConfiguration" type="ConnectionConfiguration" nillable="true" minOccurs="0"/>

<xsd:element name="LastConsumerChangeDate" type="xsd:date" nillable="true" minOccurs="0"/>

<xsd:element name="LegacyMtrReplacementPlan" type="xsd:date" nillable="true" minOccurs="0"/>

<xsd:element name="DefectFlag" type="DefectFlag" nillable="true" minOccurs="0"/>

<xsd:element name="DefectType" type="DefectType" nillable="true" minOccurs="0"/>

<xsd:element name="DefectIssuingMC" type="PartyIdentifier" nillable="true" minOccurs="0"/>

</xsd:sequence>

</xsd:complexType>

#### Enumerations.xsd

* Add comments for 9 enums to match name mapping for AustralianFlatOrUnitType
  + DUPL - DUP - DUPLEX
  + FCTY - FY - FACTORY
  + FLAT – F - FLAT
  + MBTH – MB - MARINE BERTH
  + OFFC – OFF - OFFICE
  + ROOM - RM - ROOM
  + STLL - SL - STALL
  + UNIT - U - UNIT
  + WHSE - WE – WAREHOUSE
* Increase length of AustralianFloorOrLevelType from 2 to 4
* Added 4 new enums to AustralianFloorOrLevelType:
  + LL - LOWER LEVEL
  + PTHS - PENTHOUSE
  + PL - PLATFORM
  + PD - PODIUM
* Add comments for 5 enums to match name mapping for AustralianStreetType
  + FRTL - FITR - FIRETRAIL
  + AV - AVE - AVENUE
  + CR - CRES - CRESCENT
  + GLDE – GLD - GLADE
  + PWY – PKWY - PARKWAY

<xsd:simpleType name="AustralianFlatOrUnitType">

<xsd:annotation>

<xsd:documentation>

Purpose - Define flat or unit types as per Australian Standard AS4590:2006

Version 4.0 additions

-- FLAT - FLAT

-- ANT - ANTENNA

…

…

…

Version 7.0 name mapping as per AS4590.1:2017

-- AS4590.1:2017 Abbreviation – aseXML Abbreviation - Name

-- DUPL - DUP - DUPLEX

-- FCTY - FY - FACTORY

-- FLAT – F - FLAT

-- MBTH – MB - MARINE BERTH

-- OFFC – OFF - OFFICE

-- ROOM - RM - ROOM

-- STLL - SL - STALL

-- UNIT - U - UNIT

-- WHSE - WE - WAREHOUSE

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="4"/>

<xsd:enumeration value="ANT"/>

<xsd:enumeration value="APT"/>

<xsd:enumeration value="ATM"/>

<xsd:enumeration value="BBQ"/>

<xsd:enumeration value="BLCK"/>

<xsd:enumeration value="BTSD"/>

…

…

…

<xsd:enumeration value="WE"/>

<xsd:enumeration value="WKSH"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="AustralianFloorOrLevelType">

<xsd:annotation>

<xsd:documentation>

Purpose - Define floor or level types as per Australian Standard AS4590:2006

Version 4.0 additions

-- LB - LOBBY

-- OD - OBSERVATION DECK

-- P - PARKING

-- RT - ROOFTOP

-- SB - SUB-BASEMENT

Version 5.0 additions

-- Element AustralianFloorOrLevelType has been restricted to 2 characters

Version 6.0 additions as per Australian Standard AS4590:2017

-- Element AustralianFloorOrLevelType has been restricted to 4 characters

-- LL - LOWER LEVEL

-- PTHS - PENTHOUSE

-- PL - PLATFORM

-- PD - PODIUM

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="4"/>

<xsd:enumeration value="B"/>

<xsd:enumeration value="FL"/>

<xsd:enumeration value="G"/>

<xsd:enumeration value="L"/>

<xsd:enumeration value="LB"/>

<xsd:enumeration value="LG"/>

<xsd:enumeration value="M"/>

<xsd:enumeration value="OD"/>

<xsd:enumeration value="P"/>

<xsd:enumeration value="UG"/>

<xsd:enumeration value="RT"/>

<xsd:enumeration value="SB"/>

<xsd:enumeration value="LL"/>

<xsd:enumeration value="PTHS"/>

<xsd:enumeration value="PL"/>

<xsd:enumeration value="PD"/>

</xsd:restriction>

</xsd:simpleType>

<xsd:simpleType name="AustralianStreetType">

<xsd:annotation>

<xsd:documentation>

Purpose - Define street types as per Australian Standard AS4590:2006.

Detail - There are several additions in this list over and above those defined in AS4590:2006. These additions are defined as follows:

-- GTWY - GATEWAY

-- HETH - HEATH

-- ISLD - ISLAND

…

…

…

Version 7.0 addition of comments

-- AS4590.1:2017 Abbreviation – aseXML Abbreviation - Name

-- FRTL - FITR - FIRETRAIL (FTRL (AS4590) is to be mapped to FITR (aseXML))

-- AV - AVE - AVENUE

-- CR - CRES - CRESCENT

-- GLDE – GLD - GLADE

-- PWY – PKWY - PARKWAY

</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="xsd:string">

<xsd:maxLength value="4"/>

<xsd:enumeration value="ACCS"/>

<xsd:enumeration value="ALLY"/>

<xsd:enumeration value="ALWY"/>

<xsd:enumeration value="AMBL"/>

<xsd:enumeration value="ANCG"/>

<xsd:enumeration value="APP"/>

<xsd:enumeration value="ARC"/>

<xsd:enumeration value="ART"/>

<xsd:enumeration value="AVE"/>

<xsd:enumeration value="BASN"/>

<xsd:enumeration value="BAY"/>

<xsd:enumeration value="BCH"/>

<xsd:enumeration value="BEND"/>

<xsd:enumeration value="BLK"/>

<xsd:enumeration value="BVD"/>

<xsd:enumeration value="BOWL"/>

<xsd:enumeration value="BRCE"/>

<xsd:enumeration value="BRAE"/>

<xsd:enumeration value="BRK"/>

<xsd:enumeration value="BDGE"/>

<xsd:enumeration value="BDWY"/>

<xsd:enumeration value="BROW"/>

<xsd:enumeration value="BYPA"/>

<xsd:enumeration value="BYWY"/>

<xsd:enumeration value="CAUS"/>

<xsd:enumeration value="CRSE"/>

<xsd:enumeration value="CTR"/>

<xsd:enumeration value="CNWY"/>

…

…

…

<xsd:enumeration value="VUE"/>

<xsd:enumeration value="VWS"/>

<xsd:enumeration value="WDS"/>

<xsd:enumeration value="WTWY"/>

</xsd:restriction>

</xsd:simpleType>

#### Events\_r46.xsd

* New file to replace Events\_r43.xsd and include the r46 release identifier as below:

<xsd:simpleType name="r46">

<xsd:annotation>

<xsd:documentation>Purpose - Release r46 identifier.</xsd:documentation>

</xsd:annotation>

<xsd:restriction base="ReleaseIdentifier">

<xsd:enumeration value="r46"/>

</xsd:restriction>

</xsd:simpleType>

#### OneWayNotification\_r46.xsd

* Update version attribute of following existing elements from r36 to r46:
  + MeterFaultAndIssueNotification
* Rename file to r46 version.

<xsd:complexType name="MeterFaultAndIssueNotification">

<xsd:sequence>

<xsd:element name="NMI" type="NMI"/>

<xsd:element name="DateIdentified" type="xsd:date"/>

<xsd:element name="StartDate" type="xsd:date" minOccurs="0"/>

<xsd:element name="StartTime" type="xsd:time" minOccurs="0"/>

<xsd:element name="EndDate" type="xsd:date" minOccurs="0"/>

<xsd:element name="Duration" type="Duration" minOccurs="0"/>

<xsd:element name="SupplyOn" type="YesNo"/>

<xsd:element name="SupplyOff" type="SupplyOff" minOccurs="0"/>

<xsd:element name="Meters" type="ElectricityMeters" minOccurs="0"/>

<xsd:element name="ReasonForNotice" type="ReasonForNotice"/>

<xsd:element name="Notes" type="NotificationNotes" minOccurs="0"/>

</xsd:sequence>

<xsd:attribute name="version" type="r46" use="optional" default="r46"/>

#### </xsd:complexType>

# Schema Manifest

The table below shows the schema files included in this release. Files that have been added, removed or modified for this release are marked.

1. Schema Files

|  |  |
| --- | --- |
| File | Modified |
| Acknowledgements\_r15.xsd |  |
| aseXML\_r46.xsd | \* |
| BAR\_r31.xsd |  |
| BulkDataTool\_r33.xsd |  |
| CATSReports\_r39.xsd |  |
| CATSTableReplication\_r46.xsd | \* |
| ClientInformation\_r46.xsd | \* |
| Common\_r46.xsd | \* |
| CustomerDetails\_r41.xsd |  |
| CustomerTransfer\_r29.xsd |  |
| ElectricityEnumerations.xsd |  |
| ElectricityHighSpeedMonitoring\_r26.xsd |  |
| ElectricityMasterStandingData\_r46.xsd | \* |
| ElectricityMMS\_r33.xsd |  |
| Electricity\_r46.xsd | \* |
| Enumerations.xsd |  |
| Events\_r46.xsd | \* |
| Faults\_r33.xsd |  |
| GasEnumerations.xsd |  |
| GasMarketWholesale\_r34.xsd |  |
| Gas\_r45.xsd |  |
| Header\_r37.xsd |  |
| HighSpeedMonitoring\_r33.xsd |  |
| HubManagement\_r37.xsd |  |
| MarketWholesale\_r20.xsd |  |
| MDMTReports\_r44.xsd |  |
| MeterDataManagement\_r36.xsd |  |
| NetworkBilling\_r34.xsd |  |
| NMIDataAccess\_r39.xsd |  |
| NOSAssessment\_r38.xsd |  |
| NOSBooking\_r38.xsd |  |
| NOSCommon\_r38.xsd |  |
| NOSEquipment\_r33.xsd |  |
| OneWayNotification\_r46.xsd | \* |
| P2P\_r36.xsd |  |
| Reports\_r39.xsd |  |
| ServiceOrder\_r41.xsd |  |
| TableReplication\_r33.xsd |  |
| Transactions\_r43.xsd |  |

# Schema Test

## Test

The ASWG ensures that all recommended parsers on relevant platforms can successfully validate the proposed schema.

### Test Platforms

Supplied samples have been tested using the following parsers:

* XMLSpy 2014
* MSXML6
* Xerces 2.9.1
* Xerces 2.2.1

### Test Cases

* NOTE: Sample filenames have been modified, where they contained a space in the name, as these failed Xerces validation

Specific additional test cases for r46 includes:

* NEMMSATS\_ReplicationNotificationAddress\_r46.xml. Added to BuildingOrPropertyName2 to make it more than 30 characters. Using BuildingOrPropertyName2 in addition to two BuildingOrPropertyName elements.
* NEMMSATS\_ReportResponseNMIMasterMeterConfig\_r46.xml. ElectricityNMIMasterRow with r46 version tag.
* NEMB2B\_ServiceOrderRequest.MeterInvestigation\_r46.xml. Hazard -> Description length greater than 80.
* NEMB2B\_ServiceOrderRequest.Temporary\_Isolation\_r46.xml. New service order sub types.
* NEMB2B\_ServiceOrderResponse\_O\_r46.xml. New SORDResponseCode value with hyphen.
* NEMB2B\_ServiceOrderRequest.MeteringServiceWorks\_r46.xml. New RegClassification value.

### Test Process

1. Obtain a copy of the 5 existing regression test suite XML files
   * nem\_samples\_r45.zip
   * nem\_wholesale\_samples\_r45.zip
   * nemb2b\_samples\_45.zip
   * sawa\_samples\_r45.zip
   * vicgas\_samples\_r45.zip
2. Obtain a copy of additional case new R46 test suite XML files.
3. Unzip all test XML files a folder
4. Replace “xmlns:ase="urn:aseXML:r45” with “xmlns:ase="urn:aseXML:r46”
5. Replace “xsi:schemaLocation="urn:aseXML:r45 <http://www.nemmco.com.au/aseXML/schemas/r45/aseXMLr45.xsd>” with “xsi:schemaLocation="urn:aseXML:r46 S:/aseXML\_r46.xsd” where S: is a mapped local folder holding the r46 schema files.
6. Check every single test XML file individually to detect variances in the above xsi:schemaLocation approach, e.g. hardcoded “O:/<filename>” instances and other occurrences not picked up by the standard search/replace above need to be manually fixed. It would be good if a single search/replace could be used for this step, and the test XML files had consistent headers.
7. Run the test process using the 4 supported XML Toolkits.
8. Check output log for any successful parse results, as well as expected or unexpected errors.

### Test Results

All OK on all Test Platforms, see section 6.1.1

* All valid test files passed with no parse error.

### Character Classification

Pattern restriction is enforced by regular expressions in some places in aseXML schema. That makes knowing the precise set of classification of characters important. It is particularly important in the testing process. In some quick tests using simple Pattern class in JAVA – not fully fledged JAVA parsers – some differences vis-à-vis XML Spy were reported. These tests were performed to validate the data stored in database against aseXML type definitions. Some characters that were treated differently between JAVA Pattern class and XML Spy were $ + |. XML Spy accepted them as punctuation characters but JAVA Pattern class rejected. Note, these three characters are only a few examples of difference, not an exhaustive list. As explained below, further investigations revealed that XML Spy is correct as per the XML standard.

The XML standards depend upon Unicode specifications for the purpose of this classification. The complete list of classification of Unicode characters in various classes can be found at <http://www.unicode.org/>.

To download the classification for any particular version of classification, start from directory listing at <http://www.unicode.org/Public> and traverse down the tree of the concerned version to download the zip (usually named ucd.zip) which contains all the documents for that version. The zip for version 6.2.0 resides at <http://www.unicode.org/Public/6.2.0/ucd/>. The document in this zip, usually named UnicodeData.txt, contains entire classification of all Unicode characters, having a line per Unicode character, with semi-colon delimited fields in each line. Explanation of fields can be found in the documentation in the zip (UCD.html). To view this UnicodeData.txt document conveniently, start Excel and open the document. While opening the document Excel will ask for information about the file contents. In response specify the document to be semicolon delimited with each column of the document being text. The column C of the Excel spreadsheet specifies the character classification. Note, while opening the file in Excel if each column is not specified to be text then Excel may format some information incorrectly.

The classification of the extended ASCII characters for version 6.2.0 of Unicode is provided here in an Excel spreadsheet :



The classifications starting with L signify letters, starting with N signify digits, starting with P signify punctuations, starting with S signify symbols and those starting with C signify control characters. Note, the spread sheet does not contain all the fields (columns) from the UnicodeData.txt file.

# ASWG Endorsement

With a quorum established the ASWG voted to endorse schema r46, with the included aseXML Change Requests. The voting results are forwarded to AEMO for approval. When 75% of those ASWG members vote to endorse a schema it represents an ASWG recommendation for that schema. AEMO will not reject an ASWG recommendation without first consulting with the ASWG.

The results of the ASWG vote for the final schema to be released are as follows:

Date of Vote: 02/05/2025

|  |  |  |
| --- | --- | --- |
| **Option** | **# Votes** | **% Vote** |
| For | 4 | 100% |
| Against | 0 | 0% |
| Abstained | 0 | 0% |
| Total Members Present | 4 | 100% |

# AEMO Approval

The schema approval and approval date are identified below

|  |  |  |
| --- | --- | --- |
| **Status** | **Date** | **Authorised by** |
| **Approved** – The schema has been approved by AEMO and is formally released for use | 02 May 2025 | Wayne Lee |