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| Schema ReleaseAseXML Schema Working GroupRelease r42 |

December 2021

Draft Release Date: 24 November 2021

Final Release Date: 17 January 2022

Version Control

|  |  |  |
| --- | --- | --- |
| Version | Release date | Changes |
| 0.1 | 22 December 2021 | Creation |
| 0.2 | 17 January 2022 | Finalised after ASWG approval |
|  |  |  |

Contents

[1. Introduction 4](#_Toc90982645)

[2. Change Requests 4](#_Toc90982646)

[2.2 Reason for Change 5](#_Toc90982647)

[2.3 Supplied Documents 5](#_Toc90982648)

[3. Impact Summary 5](#_Toc90982649)

[4. File Change Summary 7](#_Toc90982650)

[4.1 aseXML 7](#_Toc90982651)

[4.2 Changes 7](#_Toc90982652)

[5. Schema Manifest 31](#_Toc90982653)

[6. Schema Test 32](#_Toc90982654)

[6.1 Test 32](#_Toc90982655)

[7. ASWG Endorsement 34](#_Toc90982656)

[8. AEMO Approval 34](#_Toc90982657)

Tables

[Table 1 Proposed Changes 5](#_Toc72162154)

[Table 2 Impacted items 12](#_Toc72162155)

[Table 3 Change Log 15](#_Toc72162156)

[Table 4 Schema Files 26](#_Toc72162157)

Figures

**No table of contents entries found.**

# Introduction

Version r42 of the aseXML schema has been developed from r41. 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

The proposed changes are listed in the following table.

|  |  |  |
| --- | --- | --- |
| **Item#** | **Change Description** | **Change Type[[1]](#footnote-1)** |
| 1 | Add eight new fields for NMI standing data:* SharedIsolationPointFlag
* MeterMalfunctionExemptionNumber
* MeterMalfunctionExemptionExpiryDate
* ConnectionConfiguration
* GNAFPID
* SectionNumber
* DPNumber
* HouseNumberTo
 | New |
| 2 | Add fifteen new fields for Meter Register Standing Data:* CurrentTransformerLocation
* CurrentTransformerType
* CurrentTransformerRatioAvailable
* CurrentTransformerRatioConnected
* CurrentTransformerAccuracyClass
* CurrentTransformerTest
* CurrentTransformerTestDate
* GPSCoordinates
* VoltageTransformerLocation
* VoltageTransformerType
* VoltageTransformerRatio
* VoltageTransformerAccuracyClass
* VoltageTransformerTest
* VoltageTransformerTestDate
* Add TestResult as new field to Meter Register Table -**ElectricityNMIMeterGroup** [TestResultAccuracy is renamed to TestResult which will be treated as new element]
 | New |
| 3 | Modify existing elements for amended fields * Hazard
* Location
* LocationDescriptor
 | New |
| 4 | Added HouseNumberToSuffix element  | New |

1. Proposed Changes

### Change Description

Addition of new fields and update existsing fields to provide more complete and accurate Standing Date to support MSDR.

## Reason for Change

The new fields added in schema for MSATS Standing Data Review (MSDR) provided an opportunity to ensure MSATS Standing Data reflects the needs of the market by standardising the data and ensuring that data are complete, accurate and useful.

## Supplied Documents

Not applicable.

### Business process document

Currently a number of standing data fields are poorly utilised—the data is incomplete, ‘nonsense’ and as a result, is not useful.

AEMO is proposing that all standing data must be complete, accurate, and useful.

• Complete: No more “optional” fields—only “mandatory” or “required”.

• Accurate: Minimal free text, structured fields.

• Useful: All underutilised fields to be reviewed and/or removed.

### Other

Not applicable.

# Impact Summary

This table identifies the files, transactions and versioned types that are changed in this schema, where:

* Modified types - is a full list of types changed in this schema
* 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 to use this schema
* 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 have been changed in some way for this schema.
1. Impacted items

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Modified types** | **Derived types** | **Versioned types affected** | **Transactions potentially affected** | **Schema files affected** |
|  |  |  |  | aseXML\_r42.xsd |
| R42 |  |  |  | Events\_r42.xsd |
| ElectricityNMIMeterGroup |  | ElectricityNMIMasterRowElectricityNMIMeterRowElectricityNMIMasterRowBDTElectricityNMIMeterRowBDTElectricityCATSChangeRequestNMIMasterRowElectricityCATSChangeRequestNMIMeterRow | ReplicationNotificationCATSBulkDataResponse | CATSTableReplication\_r42.xsd |
| AustralianPartialAddress AustralianStructuredAddressPartialComponents AustralianAddress AustralianStructuredAddressComponents |  |  |  | ClientInformation\_r42.xsd |
| ElectricityNMIMasterGroupElectricityMasterStandingData | ElectricityCATSChangeRequestNMIMasterRowElectricityNMIMasterRowBDTElectricityNMIMasterRow | ElectricityStandingData | NMIStandingDataResponseReportResponseCATSChangeRequest | ElectricityMasterStandingData\_r42.xsd |
| ElectricityMeter |  |  |  | Electricity\_r42.xsd |

# File Change Summary

The following file changes are implemented to create the r41 schema version

## aseXML

Changed aseXML namespace to urn:aseXML:r41

## Changes

The following changes have been implemented in this draft:

|  |  |  |  |
| --- | --- | --- | --- |
| **Chg #** | **Item #** | **Description of change** | **Filename** |
| 1 | 1,2,3 | Replace version of schema to r42 | aseXML\_r42.xsd |
| 2 | 2 | * Add fifteen new fields for Meter Register Table to **ElectricityNMIMeterGroup**
* CurrentTransformerLocation
* CurrentTransformerType
* CurrentTransformerRatioAvailable
* CurrentTransformerRatioConnected
* CurrentTransformerAccuracyClass
* CurrentTransformerTest
* CurrentTransformerTestDate
* GPSCoordinates
* VoltageTransformerLocation
* VoltageTransformerType
* VoltageTransformerRatio
* VoltageTransformerAccuracyClass
* VoltageTransformerTest
* VoltageTransformerTestDate
* Add TestResult as new field to Meter Register Table -**ElectricityNMIMeterGroup** [TestResultAccuracy is renamed to TestResult which will be treated as new element]
* Update version attribute
* ElectricityNMIMasterRow
* ElectricityNMIMeterRow
* ElectricityNMIMasterRowBDT
* ElectricityNMIMeterRowBDT
* ElectricityCATSChangeRequestNMIMasterRow
* ElectricityCATSChangeRequestNMIMeterRow
 | CATSTableReplication\_r42.xsd |
| 3 | 1,3,4 | * Define new address related fields (HouseNumberTo, HouseNumberToSuffix, SectionNumber, DPNumber, GNAFPID) and add them to existing **AustralianAddress, AustralianPartialAddress, AustralianStructuredAddressPartialComponents** and **AustralianStructuredAddressComponents**
* Update LocationDescriptor length from 30 to 200
 | ClientInformation\_r42.xsd |
| 4 | 1,2,3 | * Define new simple types
* Modify existing element data length – MeterHazard, MeterLocation
* Update version attribute of **ElectricityStandingData**
* Add fifteen new fields to **ElectricityMeter** in **Electricity\_r42.xsd**
* CurrentTransformerLocation
* CurrentTransformerType
* CurrentTransformerRatioAvailable
* CurrentTransformerRatioConnected
* CurrentTransformerAccuracyClass
* CurrentTransformerTest
* CurrentTransformerTestDate
* GPSCoordinates
* VoltageTransformerLocation
* VoltageTransformerType
* VoltageTransformerRatio
* VoltageTransformerAccuracyClass
* VoltageTransformerTest
* VoltageTransformerTestDate
* Add **TestResult** asnew fields for Meter Register Table to **ElectricityMeter**
 | Electricity\_r42.xsd |
| 5 | 1,4 | Add eight new fields to **ElectricityMasterStandingData** and **ElectricityNMIMasterGroup** in **ElectricityMasterStandingData\_r42.xsd**:* SharedIsolationPointFlag
* MeterMalfunctionExemptionNumber
* MeterMalfunctionExemptionExpiryDate
* ConnectionConfiguration
* GNAFPID
* SectionNumber
* DPNumber
* HouseNumberTo
* HouseNumberToSuffix

Add four new fields to **ElectricityMasterStandingData** in **ElectricityMasterStandingData\_r42.xsd**:* SharedIsolationPointFlag
* MeterMalfunctionExemptionNumber
* MeterMalfunctionExemptionExpiryDate
* ConnectionConfiguration
 | ElectricityMasterStandingData\_r42.xsd |
| 6 | 1,2,3 | Registration of r42 release | Events\_r42.xsd |

1. Change Log

### Schema change description

#### aseXml\_r39.xsd

New file to replace aseXML\_r42.xsd and include the r42 file versions listed below.

<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">

#### CATSTableReplication\_r42.xsd

Add fifteen new fields for Meter Register Table to **ElectricityNMIMeterGroup**

Add **TestResult** as new element.

<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"/>

 <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"/>

 <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>



Update version attribute for ElectricityNMIMasterRow, ElectricityNMIMeterRow, ElectricityNMIMasterRowBDT, ElectricityNMIMeterRowBDT, ElectricityCATSChangeRequestNMIMasterRow, 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>

 <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>

 </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>

#### ClientInformation\_r42.xsd

Define new address related fields (HouseNumberTo,HouseNumberToSuffix,SectionNumber,DPNumber,GNAFPID) and add them to existing **AustralianAddress, AustralianPartialAddress, AustralianStructuredAddressPartialComponents** and **AustralianStructuredAddressComponents**

<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"/>

 <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>

 <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>



 <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="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>

 </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>

 <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>



Update **LocationDecriptor** length 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>

#### Electricity\_r42.xsd

Update existing elements data length for amended fields.

 <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>

Addition of new following new elements – All new simple types are defined here.

<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>

 </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>

 <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>

 </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>

 </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>

Update version attribute of existing **ElectricityStandingData**

<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>

Add fifteen new fields for Meter Register Table to **ElectricityMeter**

Add **TestResult** asnew fields for Meter Register Table to **ElectricityMeter**

<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"/>

 <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"/>

 <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"/>

 <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>

#### ElectricityMasterStandingData\_r42.xsd

Add eight new fields to 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"/>

 <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" minOccurs="0"/>

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

 </xsd:sequence>

 </xsd:group>



Add four new fields to ElectricityMasterStandingData

<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>



#### Events\_r42.xsd

Define new simple type “r42”

 <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>

# 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\_r42.xsd | \* |
| BAR\_r31.xsd |  |
| BulkDataTool\_r33.xsd |  |
| CATSReports\_r39.xsd |  |
| CATSTableReplication\_r42.xsd | \* |
| ClientInformation\_r42.xsd | \* |
| Common\_r41.xsd |  |
| CustomerDetails\_r41.xsd |  |
| CustomerTransfer\_r29.xsd |  |
| ElectricityEnumerations.xsd |  |
| ElectricityHighSpeedMonitoring\_r2 |  |
| ElectricityMasterStandingData\_r42.xsd | \* |
| ElectricityMMS\_r33.xsd |  |
| Electricity\_r42.xsd | \* |
| Enumerations.xsd |  |
| Events\_r42.xsd | \* |
| Faults\_r33.xsd |  |
| GasMarketWholesale\_r34.xsd |  |
| Gas\_r40.xsd |  |
| GasEnumerations.xsd |  |
| Header\_r37.xsd |  |
| HighSpeedMonitoring\_r33.xsd |  |
| HubManagement\_r37.xsd |  |
| MarketWholesale\_r20.xsd |  |
| MDMTReports\_r39.xsd |  |
| MeterDataManagement\_r36.xsd |  |
| NetworkBilling\_r34.xsd |  |
| NMIDataAccess\_r39.xsd |  |
| NOSAssessment\_r38.xsd |  |
| NOSBooking\_r38.xsd |  |
| NOSCommon\_r38.xsd |  |
| NOSEquipment\_r33.xsd |  |
| OneWayNotification\_r41.xsd |  |
| P2P\_r36.xsd |  |
| Reports\_r39.xsd |  |
| ServiceOrder\_r41.xsd |  |
| TableReplication\_r33.xsd |  |
| Transactions\_r38.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
* MSXML6
* Xerces 2.9.1
* Xerces 2.2.1
* Schema comparison (r41 - r42)

### Test Cases

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

### Test Process

1. Obtain a copy of the 5 existing regression test suite XML files
	* nem\_samples\_r42.zip
	* nem\_wholesale\_samples\_r42.zip
	* nemb2b\_samples\_r42.zip
	* sawa\_samples\_r42.zip
	* vicgas\_samples\_r42.zip
2. Obtain a copy of new R42 test suite XML files.
3. Unzip all test XML files a folder
4. Replace “xmlns:ase="urn:aseXML:r41” with “xmlns:ase="urn:aseXML:r42”
5. Replace “xsi:schemaLocation="urn:aseXML:r41 <http://www.nemmco.com.au/aseXML/schemas/r41/aseXMLr41.xsd>” with “xsi:schemaLocation="urn:aseXML:r42 S:/aseXML\_r42.xsd”
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 r41, 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: 14/05/2021

|  |  |  |
| --- | --- | --- |
| **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 |  |  |

1. Change Type can be one of

New

Enhancement, or

Bug Fix [↑](#footnote-ref-1)