
Schema Change Request

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Title	MSATS enhancements
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Priority	

Document Control

Version	Date	Author	Summary of Change
1.0	27 April 06	Nandkumar Gaikwad Nada Reinprecht	Change proposal
1.1	24 May 2006	Nada Reinprecht	Approval Proposal
1.2	25 May 2006	Nada Reinprecht	Request for restrictions on CATSObjectionRequest withdrawn by Nandkumar
2.0	5/7/2006	Darren Field	Version approved for release

Document Status

Contents

Schema Change Request.....	1
Document Control	2
Document Status.....	2
Contents	3
1. Change Proposal.....	4
1.1. Description of the proposed change.....	4
1.1.1 Change #1: NEMMCO Metering and Settlements Data Delivery and Standing Data Quality Reports	4
1.1.2 Change #2: Add NMI Status as an element in CATSNotification.....	4
1.1.3 Change #3: Add a new replication row type for MSATS Code Values Table	4
1.1.4 Change #4: Correct documentation for CATS Snapshot Report Parameters.....	5
1.1.5 Change #5: Provide Role in CATS Transaction Field Validations.....	5
1.1.6 Change #6: Add report parameter type for the C8 Security Report.....	5
1.2. Reason for Change.....	5
1.3. Baseline Schema.....	5
2. Approval Proposal	6
2.1. Draft Schema	6
2.2. Change log.....	6
2.3. Schema change description.....	6
2.3.1 aseXML	6
2.3.2 CATSReports.....	7
2.3.3 CATSTableReplications	9
2.3.4 CustomerTransfer	10
2.4. Impact Summary.....	11
2.5. Developer Test.....	12
2.5.1 Test Platforms.....	12
2.5.2 Test Cases	12
3. Proposal Assessment	13
3.1. Test	13
3.1.1 Test Platforms.....	13
3.1.2 Test Cases	13
3.1.3 Test Results.....	13
3.2. Conformance Report.....	13
4. Issue Register.....	14
4.1. Status of Issues	14
5. Resolution.....	15
5.1. ASWG Vote.....	15
Tables	
Table 1-1, Proposed Changes	4

1. Change Proposal

This Change Proposal contains the following:

- Request for enhancements and bug fixes relating to the Market Settlement and Transfer Solution (MSATS) system of NEMMCO.

1.1. Description of the proposed change

The proposed changes are listed in the following table.

Table 1-1, Proposed Changes

Item#	Change Description	Change Type
Business Changes		
1.	Allow the implementation of enhanced performance monitoring and reporting capability for the Metering and Settlements business. This involves the provision of regular reports to NEMMCO Metering and Settlements and subsequently to Metering Service Providers and Participants relating to the quality and timeliness of Metering Service Providers deliverables in respect to Service Level Requirements.	Enhancement
2.	Add NMI Status as an element in CATSNotification	Enhancement
3.	Add a new replication row type for MSATS Code Values Table	Enhancement
4.	Correct documentation for CATS Snapshot Report Parameters which are incorrectly documented as the C8 Security report	Bug fix
5.	Provide Role in CATS Transaction Field Validations Row should be of type RoleIdentifier	Bug fix
6.	Add report parameter type for the C8 Security Report so that it is schema valid	Enhancement

1.1.1 Change #1: NEMMCO Metering and Settlements Data Delivery and Standing Data Quality Reports

NEMMCO Metering and Settlements will schedule three new MSATS reports: Weekly Standing Data Quality Report, Monthly Metering Data Delivery Quality Report and Standing Data Traffic Light Report. The outputs from these will be used to provide the relevant participants with reports that apply to them. Three new report parameters are needed in order to be able to identify the reports and show the parameters used in these reports in the report responses.

1.1.2 Change #2: Add NMI Status as an element in CATSNotification

The NMI Status will be reported for information purpose as are the NMI Class and Jurisdiction being reported currently. This will help participant receiving the notification to decide the course of action to be taken upon receipt of notification. e.g. This will help highlight the transfer of de-energized NMIs which some times results in confusion with MDPs and erroneously submission of change requests by MDPs for creation of other related data for the NMI.

1.1.3 Change #3: Add a new replication row type for MSATS Code Values Table

The MSATS Code Values table is currently not replicated. This table contains information like parameters used in jobs in MSATS etc. However it also contains some codes like street types which are used by participants. It is planned to enable participants to replicate some rows of this table - depending upon the need and sensitivity of the information. A codes replication row type needs to be added to achieve this.

1.1.4 Change #4: Correct documentation for CATS Snapshot Report Parameters

This report has been incorrectly documented in the schema as 'C8 Security report' the same needs to be rectified

1.1.5 Change #5: Provide Role in CATS Transaction Field Validations

ProvideRole type has been incorrectly defined in the schema (YesNo), needs to be corrected.

1.1.6 Change #6: Add report parameter type for the C8 Security Report

This is a NEMMCO only report whose type is not included in the schema and hence is schema invalid.

1.2. Reason for Change

The National Electricity Code clause 7.9.4 requires NEMMCO to be responsible for monitoring and reporting on certain performance level requirements of the Quality and quantity of metering data and standing data delivered by the participants into the MSATS system. In order to meet these obligations, the Nemmco Metering area introduced performance monitoring of its Market Settlement and Transfer Solution (MSATS). These performance monitoring has been implemented via the requested reports.

Another reason for change is to fix the bugs.

1.3. Baseline Schema

The schema used as a basis for this proposal is aseXML_r18.

2. Approval Proposal

2.1. Draft Schema

<Identify any draft schema that is supplied with the CR>

2.2. Change log

The following changes have been implemented in this draft:

Chg #	Item #	Description of change	File
1	All	Namespace changed to r19	aseXML
2	All	R19 files included	aseXML
3	All	Version number r19 included	Event
3	1	CATSSstandingDataQualityReportParameters added	CATSReports
4	1	CATSSstandingDataQualityReportParameters extended with a version attribute r19	CATSReports
5	1	CATSSDRTrafficLightReportParameters added	CATSReports
6	1	CATSSDRTrafficLightReportParameters extended with a version attribute r19	CATSReports
7	1	MDMTMeterDataDeliveryReportParameters added	CATSReports
8	1	MDMTMeterDataDeliveryReportParameters extended with a version attribute r19	CATSReports
9	2	NMIStatus added to CATSNotification	CustomerTransfer
10	2	Version attribute of CATSNotification updated to r19	CustomerTransfer
11	3	Replication row MSATSCodeValueRow added	CATSTableReplication
12	3	MSATSCodeValueRow extended with version attribute r19	CATSTableReplication
13	4	CATSSnapshotReport documentation corrected	CATSReports
14	5	CATSTransactionFieldValidationRow, ProvideRole element uses type RoleIdentifier in file	CATSTableReplication
15	5	CATSTransactionFieldValidationRow version attribute set to r19	CATSTableReplication
16	6	Report parameters DataRangeReportParameters added for Security Report	CATSReports
17	6	DataRangeReportParameters has the version attribute r19	CATSReports

Table 2-1 Change Log

2.3. Schema change description

2.3.1 aseXML

```

- <xsd:schema targetNamespace="urn:aseXML:r18urn:aseXML:r19">
- <xsd:include schemaLocation="Events_r18.xsdEvents_r19.xsd"/>
- <xsd:include schemaLocation="CustomerTransfer_r15.xsdCustomerTransfer_r19.xsd"/>
- <xsd:include schemaLocation="CATSTableReplication_r15.xsdCATSTableReplication_r19.xsd"/>
- <xsd:include schemaLocation="CATSReports_r15.xsdCATSReports_r19.xsd"/>
</xsd:schema>

```

2.3.2 CATSReports

```
<xsd:complexType name="CATSSnapshotReportParameters">
  - <xsd:annotation>
    - <xsd:documentation> Purpose - Parameters for a CATS Snapshot Report. Report Name
      - Snapshot MSATS Report - C8 Purpose - Parameters for a CATS Snapshot Report.
      Report Name Snapshot MSATS Report </xsd:documentation>
  </xsd:annotation>
</xsd:complexType>

- <xsd:complexType name="CATSStandingDataQualityReportParameters">
  - <xsd:annotation>
    - <xsd:documentation> Purpose - Parameter definition for Standing Data Report Report
      Name - Participant Standing Data report MSATS Report -
      STANDING DATA QUALITY </xsd:documentation>
  </xsd:annotation>
  - <xsd:complexContent>
    - <xsd:extension base="BaseReportParameters">
      - <xsd:sequence>
        <xsd:element name="RunDate" type="xsd:dateTime"/>
      </xsd:sequence>
      - <xsd:attribute name="version" type="r19" use="optional"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

- <xsd:complexType name="MDMTMeterDataDeliveryReportParameters">
  - <xsd:annotation>
    - <xsd:documentation> Purpose - Parameter definition for Meter Data Delivery Report
      Report Name - SDD Export MSATS Report - MTR DATA DEL XML CRT
    </xsd:documentation>
  </xsd:annotation>
  - <xsd:complexContent>
    - <xsd:extension base="BaseReportParameters">
      - <xsd:sequence>
        <xsd:element name="FromDate" type="xsd:date"/>
        <xsd:element name="ToDate" type="xsd:date"/>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```

```
    - <xsd:attribute name="version" type="r19" use="optional"/>
  </xsd:extension>
</xsd:complexContent>
</xsd:complexType>

- <xsd:complexType name="CATSSDRTrafficLightReportParameters">
  - <xsd:annotation>
    - <xsd:documentation> Purpose - Parameter definition for SDR Traffic Light Report
      Report Name - SDR Export MSATS Report - STND DAT TRAFFICLGHT
    </xsd:documentation>
  </xsd:annotation>
  - <xsd:complexContent>
    - <xsd:extension base="BaseReportParameters">
      - <xsd:sequence>
        <xsd:element name="StatsDate" type="xsd:date"/>
      </xsd:sequence>
      - <xsd:attribute name="version" type="r19" use="optional"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

- <xsd:complexType name="DataRangeReportParameters">
  - <xsd:annotation>
    - <xsd:documentation> Purpose - Parameters for a CATS Security Report Report Name -
      Security </xsd:documentation>
  </xsd:annotation>
  - <xsd:complexContent>
    - <xsd:extension base="BaseReportParameters">
      - <xsd:sequence>
        <xsd:element name="FromDate" type="xsd:dateTime"/>
        <xsd:element name="ToDate" type="xsd:dateTime"/>
      </xsd:sequence>
      <xsd:attribute name="version" type="r19"/>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
```


2.3.3 CATSTableReplications

```
- <xsd:simpleType name="MSATSCodeValueType">
  - <xsd:annotation>
    - <xsd:documentation> MSATS Data Model Column - ObjRuleDesc </xsd:documentation>
  </xsd:annotation>
  - <xsd:restriction base="xsd:string">
    <xsd:maxLength value="15"/>
    <xsd:minLength value="1"/>
    <xsd:whiteSpace value="collapse"/>
  </xsd:restriction>
</xsd:simpleType>

- <xsd:simpleType name="MSATSCodeValue">
  - <xsd:annotation>
    - <xsd:documentation> MSATS Data Model Column - ObjRuleDesc
  </xsd:documentation>
  </xsd:annotation>
  - <xsd:restriction base="xsd:string">
    <xsd:maxLength value="15"/>
    <xsd:minLength value="1"/>
    <xsd:whiteSpace value="collapse"/>
  </xsd:restriction>
</xsd:simpleType>

- <xsd:simpleType name="MSATSCodeValueDescription">
  - <xsd:annotation>
    - <xsd:documentation> MSATS Data Model Column - ObjRuleDesc
  </xsd:documentation>
  </xsd:annotation>
  - <xsd:restriction base="xsd:string">
    <xsd:maxLength value="200"/>
    <xsd:minLength value="1"/>
    <xsd:whiteSpace value="collapse"/>
  </xsd:restriction>
</xsd:simpleType>

- <xsd:complexType name="MSATSCodeValuesRow">
  - <xsd:annotation>
```

```
- <xsd:documentation> Purpose - Row of the CATSChangeStatusCodes table MSATS  
Data Model Table - CATS_CR_Status_Codes_Replication_Table_Name -  
CATSChangeStatusCodes </xsd:documentation>  
</xsd:annotation>  
- <xsd:complexContent>  
- <xsd:extension base="ReplicationBaseRow">  
- <xsd:sequence>  
- <xsd:element name="Type" type="MSATSCodeValueType"/>  
  <xsd:element name="Value" type="MSATSCodeValue"/>  
- <xsd:element name="Description" type="MSATSCodeValueDescription"/>  
</xsd:sequence>  
  <xsd:attribute name="version" type="r19" use="optional"/>  
</xsd:extension>  
</xsd:complexContent>  
</xsd:complexType>  
  
- <xsd:complexType name="CATSTransactionFieldValidationRow" ... >  
- <xsd:complexContent>  
- <xsd:extension base="ReplicationDateRangeRow" ... >  
- <xsd:sequence>  
- <xsd:element name="ProvideRole" nillable="true" minOccurs="0"  
  type="YesNoRoleIdentifier"/>  
</xsd:sequence>  
- <xsd:attribute name="version" type="r19" use="optional"/>  
</xsd:extension>  
</xsd:complexContent>  
</xsd:complexType>
```

2.3.4 CustomerTransfer

```
- <xsd:complexType name="CATSNotification" ... >  
- <xsd:sequence>  
- <xsd:element name="NMISStatus" type="NMISStatusCode" minOccurs="0"/>  
</xsd:sequence>  
- <xsd:attribute name="version" use="required" type="r19"/>  
</xsd:complexType>
```

2.4. Impact Summary

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

- o Modified types - is a full list of types changed by this Change Request
- o Derived types – is a list of any types that are derived from a modified type, and are therefore also modified by default
- o 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
- o Transactions potentially affected – is a list of all transactions that contain a modified type, either directly or via a type substitution
- o 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
CATSNotification	-	CATSNotification (r19)	CATSNotification (r19)	CustomerTransfer_r19.xsd
CATSTransactionFieldValidationRow	-	CATSTransactionFieldValidationRow (r19)	CATSBulkDataResponse (r9) ReplicationNotification (r10) ReportResponse (r10)	CATSTableReplication_r19.xsd

Table 2-2, Impact Summary

2.5. Developer Test

2.5.1 Test Platforms

The new schema has been tested using the following platforms as advised by ASWG:

- XMLSpy 2004
- MSXML4 SP1
- Xerces 1.4.4 and 2.2.1

2.5.2 Test Cases

<List any sample files provided>

3. Proposal Assessment

3.1. Test

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

3.1.1 Test Platforms

Supplied samples have been tested using the following parsers:

- MSXML 4.0 SP2 (yes)
- Xerces 1.4.1 (yes)
- Xerces 2.2.1 (schema Validated)
- XMLSpy 2004 (yes)

3.1.2 Test Cases

All xml sample docs have been validated using the above parsers as noted above.

Sample files include those supplied and updates samples from Website for NEM MSATS, NEM Wholesale & VICGas

3.1.3 Test Results

All xml sample docs have been validated using the above parsers.

3.2. Conformance Report

The ASWG completes the conformance report validating each proposed new schema file against the published aseXML guidelines.

Schema Filename	Impacted by Item #	Conformance Details
aseXML_r19.xsd	All	Conforms
Event_r19.xsd	All	Conforms
CATS_Reports_r19.xsd	1,4,6	Conforms
Customer_Transfer_r19.xsd	2	Conforms
CATSTableReplication	3,5	Conforms.

Table 3-1, Change Proposal Conformance Details

4. Issue Register

This section describes any issues that have arisen and any modifications that are made to the original proposal during the Change Process

4.1. Status of Issues

Issue#	Description and Discussion	Status	Resolution
1			

Table 4-1, Issues list

5. Resolution

The ASWG votes for endorsement of the options identified in section 2, and the voting results are forwarded to NEMMCO for approval. When 75% of those ASWG members who voted endorse a specific option, this represents an ASWG Recommendation for that option. NEMMCO will not reject an ASWG Recommendation without first consulting with the ASWG.

5.1. ASWG Vote

The results of the ASWG vote are as follows:

Date of Vote: 23/6/2006

Option	# Votes	% Vote
Option 1 (section 2.1)	5	100
Option 2 (section 2.2)	-	-
Option # (section 2.#)	-	-
Abstained	-	-
Total Members Present	5	100

Table 5-1, ASWG Vote Results