# Schema Change Request

| | |
|---|---|
| Document ID | **CR#13** |
| Change Type | "New Requirement" |
| Title | |
| Date | 29 December, 2003 |
| Prepared By | Bibhakar.Saran |
| Priority | |

| *Notes* |
|---|

## Document Control

| Version | Date | Author | Summary of Change |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## Document Status

### Sample Change Request Management (CRM) State Descriptions:

| State | Definition | Access Control |
|---|---|---|
| ***Submit Proposal*** | This state occurs as the result of a new Change Request submission. Change Request is placed in the CCB Review queue. No owner assignment takes place as a result of this action. | All Users |
| ***Reject Proposal*** | A Change Request in this state is determined by in the CCB Review Meeting or by the assigned team member to be an invalid request or more information is needed from the submitter. If confirmed invalid, the Change Request will be *Closed* by the CCB and the submitter notified. | |
| ***Closed*** | Change Request no longer requires attention. This is a final state a Change Request can be assigned. | |
| ***Approved Proposal*** | A Change Request is then assigned a baseline and the schedule update, if appropriate. | |
| ***Proposal Assessment*** | This state occurs as the result of update of an existing Change Request with all implementation details, i.e. change log, release notes, dependency analysis. Change Request is placed in the CCB Review queue. | |
| ***Proposal Rejected*** | A Change Request in this state has been ***Rejected*** and needs rework. As a result the Change request can be resubmitted for assessment at ***Proposal Assessment*** state for next iteration or ***Closed***. | |
| ***Proposal Accepted*** | A Change Request in this state has been ***Approved*** and is ready to be published in a draft release. | |
| ***Published*** | Change Request no longer requires attention. This is a final state a Change Request can be assigned. | |

# Contents

Schema Change Request ..... 1
Document Control ..... 2
Document Status ..... 2
Contents ..... 3
Tables ..... 4
Figures ..... 5
1. Change Proposal ..... 6
1.1. Description of the proposed change ..... 6
1.2. Reason for Change ..... 6
1.3. Supplied Documents ..... 6
1.3.1 Business process document ..... 6
1.3.2 Data model ..... 6
1.4. Impact assessments on Participant's systems ..... 7
1.4.1 Business Impact ..... 7
1.4.2 Technical Impact ..... 7
1.5. Affected Configuration Items (Baseline) ..... 7
1.5.1 Schema ..... 7
2. Approval Proposal ..... 8
2.1. Description of the proposed approval ..... 8
2.2. Configuration Items (New Baseline) ..... 8
2.2.1 Draft schema ..... 8
2.2.2 Schema change description ..... 8
2.2.3 Change log ..... 14
2.2.4 Dependency analysis ..... **Error! Bookmark not defined.**
3. Proposal Assessment ..... 16
3.1. Test ..... 16
3.1.1 Test Platforms ..... 17
3.1.2 Test Cases ..... 17
3.2. Conformance Report ..... 18
4. Review Disposition ..... 20
4.1. Description of Changes - Approved and Accepted ..... 20
4.2. Impact assessments on Participant's systems ..... 20
4.2.1 Business Impact ..... 20
4.2.2 Technical Impact ..... 20
4.3. Supplied Documents ..... 20
5. Resolution ..... 21
5.1. Changes Approved and Accepted ..... 21

# Tables

Table 1-1, Proposed Changes ..... 6
Table 2-1, Proposed Change Approval ..... 8
Table 3-1, Change Proposal Conformance Details ..... **Error! Bookmark not defined.**
Table 4-1, Review Notes for proposed approvals ..... 20
Table 5-1, Change Resolution ..... 21

# Figures

Figure 1-1, Changes to Data Model..... 6

# 1. Change Proposal

A Change Proposal is a ASWG managed “Parcel” of work. The Originator of the Change Proposal defines the “Parcel” of work. The industry Working Groups and Market Operators (or its vendor) can act as Originator. The Originator and the ASWG

## 1.1. Description of the proposed change

This section describes the proposed changes from business perspective.

Table 1-1, Proposed Changes

| Item# | Change Description | Change Type |
|---|---|---|
| 1 | Add required types and transactions to supoort the Balancing Allocation and Reconciliation process for wholesale trading in SA/WA Gas market | “New Requirement” |
| | | |

## 1.2. Reason for Change

To enable market participants in the role of “User” in the SA/WA gas market to use existing VENCorp hub infrastructure for the wholesale trading activities.

To avoid development and implementatuon of the additional CSV hokey-pokey protocol and services.

This change request includes only those BAR transactions, that involve “User” interactions with market operator. It does not provide any support for interactions with market participants in following roles: Shipper, Pipeline operator and Network operator.

## 1.3. Supplied Documents

RMR Clean Draft 17102003..DOC

SAWA Interface Control Document v1.1.doc

### 1.3.1 Business process document

The business process document shall highlight the changes required. This forms the basis for the proposed changes.

### 1.3.2 Data model

The data model shall highlight the required changes to the content model of the schema. This forms the basis for the proposed changes to the schema. These changes are based solely on the changes to the business process. Provide diagrams, if appropriate.

Figure 1-1, Changes to Data Model

*Note: Above is a placeholder for indexes in to table of figures*

## 1.4. Impact assessments on Participant's systems

### 1.4.1 Business Impact

This a new business process and does not impact any existing ones.

### 1.4.2 Technical Impact

Support for BAR transactions in aseXML schema would enable existing VicGas market participants to leverage their existing infrastructure and use it for the wholesale trading business activities required for SA/WA gas market as per the attached market rules and interface control documents.

Avoid development and implementatuon of the additional CSV hokey-pokey protocol and services

## 1.5. Affected Configuration Items (Baseline)

The ASWG identifies and outlines the configurable items (schema namespace and version) to be used for the implementation of the proposed changes.

### 1.5.1 Schema

The aseXML_r12 release is sugested to be considered as a baseline for the development and implementation of this change request and integration in to the aseXML_r13 release.

# 2. Approval Proposal

## 2.1. Description of the proposed approval

The table below defines the action in relation to each change item as listed in the Description of the proposed change section.
*Note: Item# is a reference to items listed in the Description of the proposed change. In case, where this list does not exactly match the proposed changes, the items listed are grouped for each proposed change.*
Table 2-1, Proposed Change Approval

| Item# | Proposal Notes | Category | Action |
|---|---|---|---|
| 1. | Add required types and transactions to supoort the Balancing Allocation and Reconciliation process for wholesale trading in SA/WA Gas market | "New Feature" | "Approved" |

## 2.2. Configuration Items (New Baseline)

The ASWG establishes a new baseline as a result of the Change Proposal approval and publishes the listed "Draft" documents for wider consultation with market participants.

### 2.2.1 Draft schema

A draft schema release aseXML_r13 to support the proposed changes is attached.

### 2.2.2 Schema change description

#### *1.1.1.1 AseXML_r13.xsd*

Modified to include the new file BAR_r13.xsd

#### *1.1.1.2 Header_13.xsd*

Added a new transaction group "BAR" for Gas ballancing , allocation and reconcilliation process B2B transactions in the Header_r13.xsd file

#### *1.1.1.3 BAR_13.xsd*

Created new file BAR_r13.xsd containing definitions for a set of simple and complex types.

These definitions and their suggested usage are detailed below:

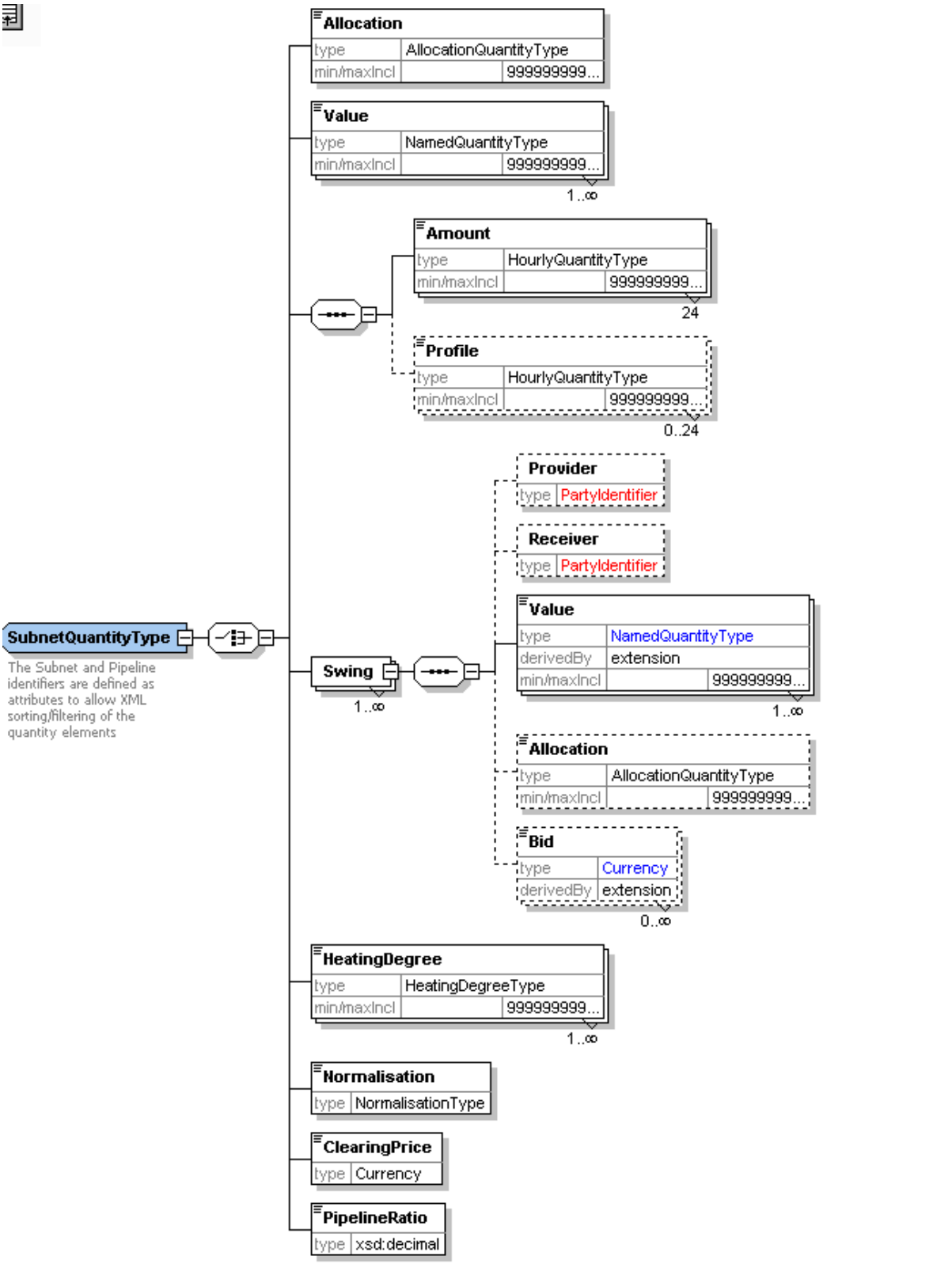
##### *1.1.1.3.1 Simple types*

1. AllocationType – enumerated list used for qualifying energy in percent or quantity.
2. UserProfieType – enumerated list used for defining User Profile types.
3. ShipperChangeType – enumerated list to add or remove user that has contract for use of a particular subnet.
4. EnergyQuantity – a data type of 12 decimal digits for consistency purpose.
5. PipelineIdentifier – a single digit integer data type.
6. SubnetIdentifier – a data type of varchar(10).
7. UsagePrecedence – a single digit integer data type .
8. SwingGasType – enumerated list used for "Park" or "Loan" the swing gas.

9. BidPriorityType – a three digits integer data type.
10. BidAllocationType – an enumerated list of predefined values.
11. BidRejectionReasonType – a four digits integer data type.
12. Currency – a decimal value in format of 15.4.
13. NetSystemLoadQuantityType – a data type of 11 decimal digits with a maximum of 2 fractional digits.

#### *1.1.1.3.2 Complex types*

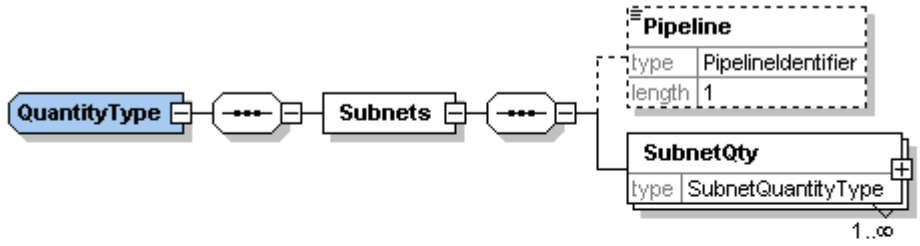
1. AllocationQuantityType – extends the EnegyQuantity by adding a required attributes “type” of AllocationType and usagePrecedence of corresponding type
2. NamedQuantityType – extends the EnergyQuantity by adding an optional attribute “name” of type string.
3. HourlyQuantityType – extends the EnergyQuantity by adding a required attribute “hour” of type int between 1 – 24.
4. SwingGasQuantityType – extends the EnergyQuantity by adding a required attribute “type” of SwingGasType.
5. HeatingDegreeType– extends the EnergyQuantity by adding attribute “zone” of SubnetIdentifierType, i.e. varchar(10).
6. NormalisationType– extends the NetSystemLoadQuantityType by adding attribute “factor” of a 4 digit decimal type with a maximum of 3 fraction digits.
7. A Subnet QuantityType is defined to specify energy quantities in a consistent structured manner for all Allocation, Reconciliation and Swing Service related transactions, involving market role “User”as shown below:

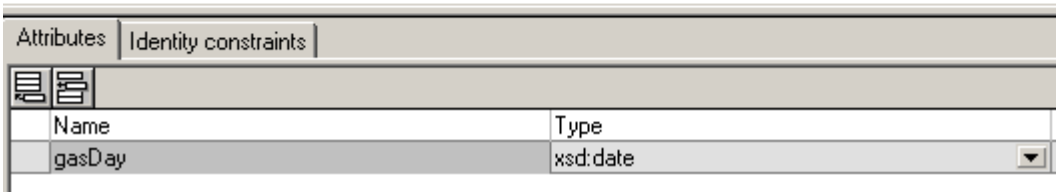



Attributes | Identity constraints

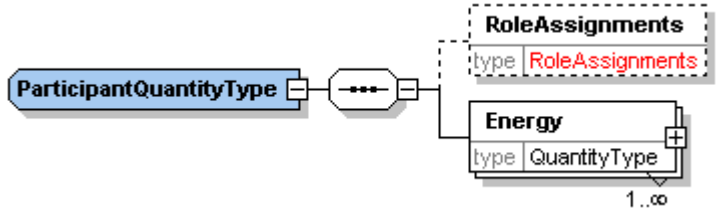
| Name | Type | Use | Default |
|---|---|---|---|
| id | SubnetIdentifier | | |
| profileType | UserProfieType | | |
| gatePoint | SubnetIdentifier | | |
| historicalDay | xsd:date | | |

8. A container is defined to encapsulate relationship between the energy for a gas day and subnets as shown below:

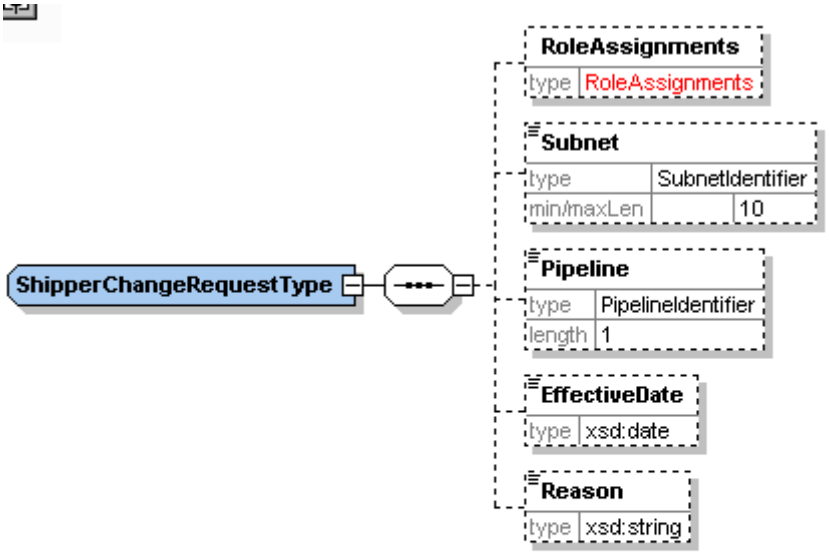


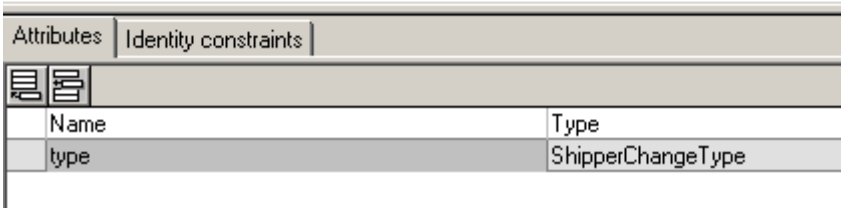




9. A Participant QuantityType is defined to associate participants in various roles with the quantities



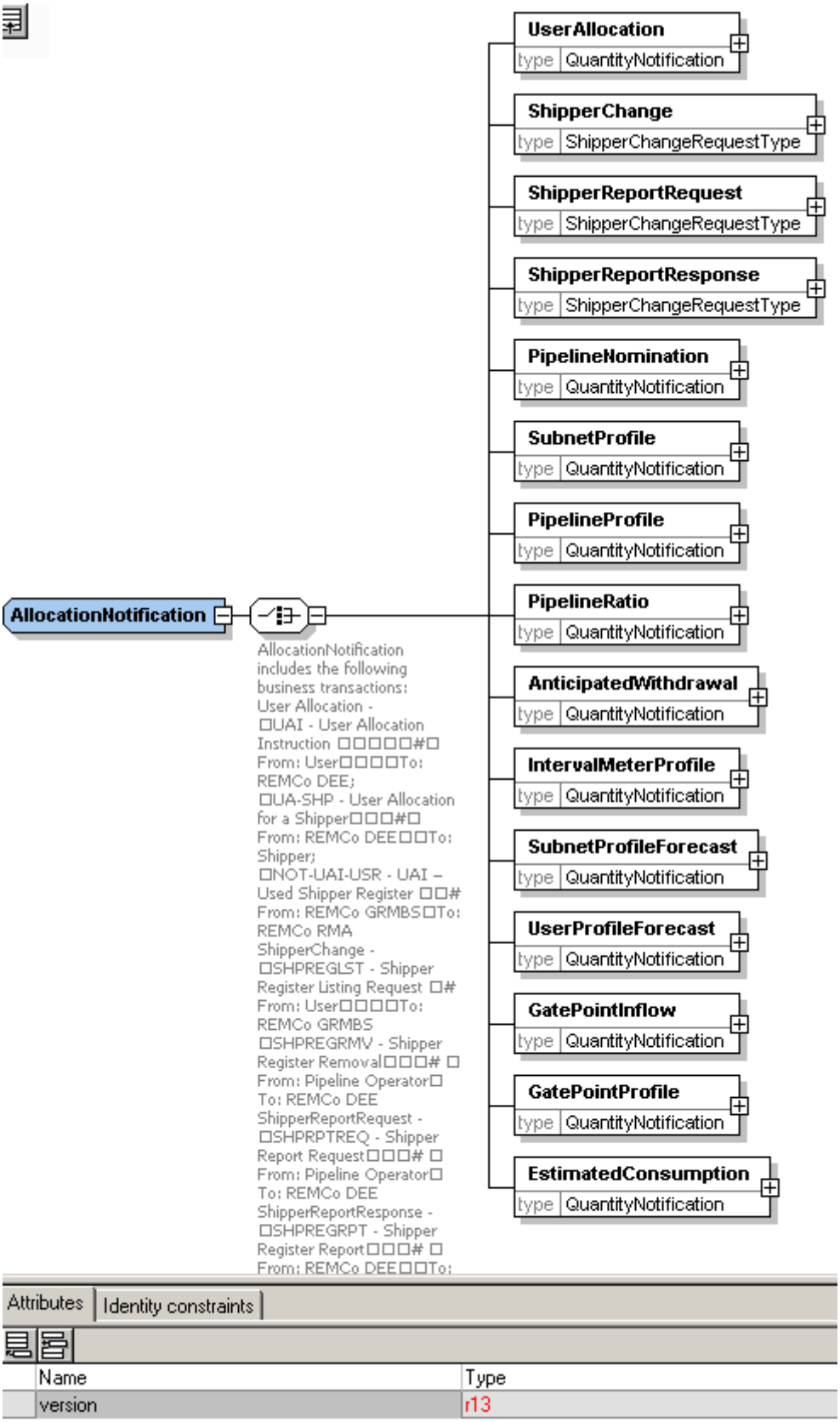

10. A shipper Change Request Types is created to manages changes to the shipper registration details:

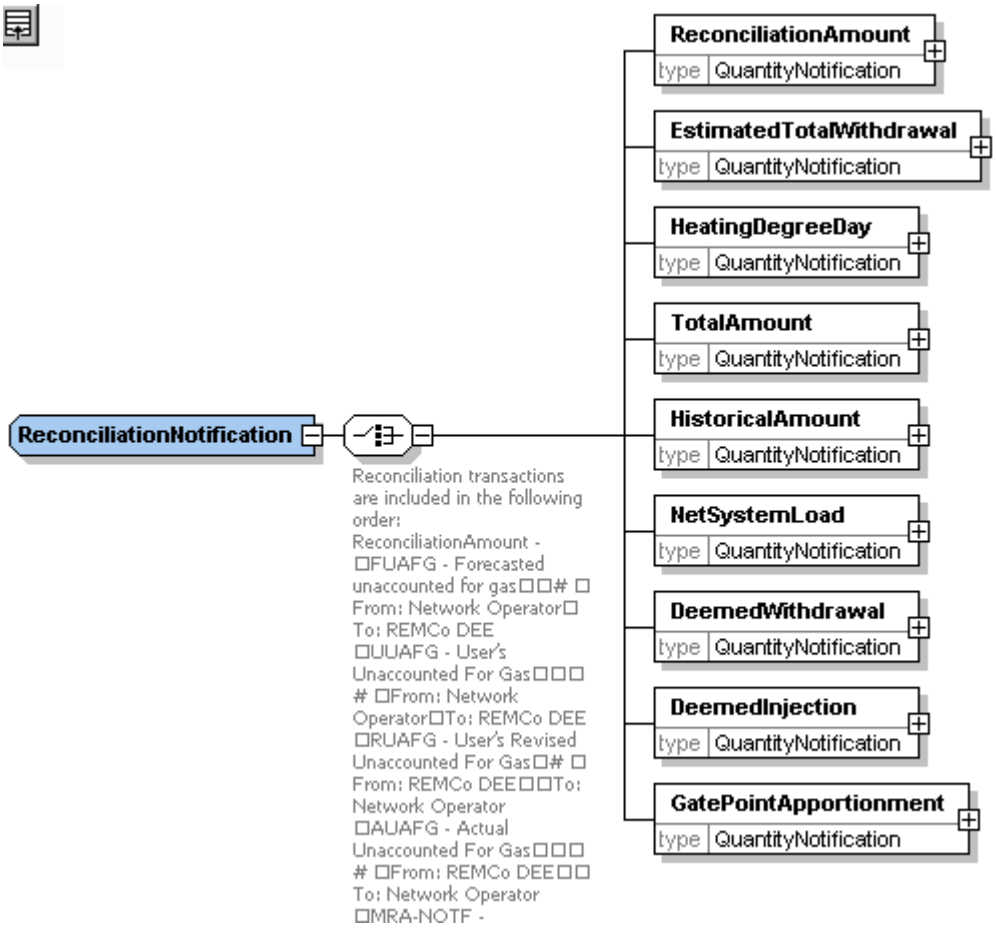


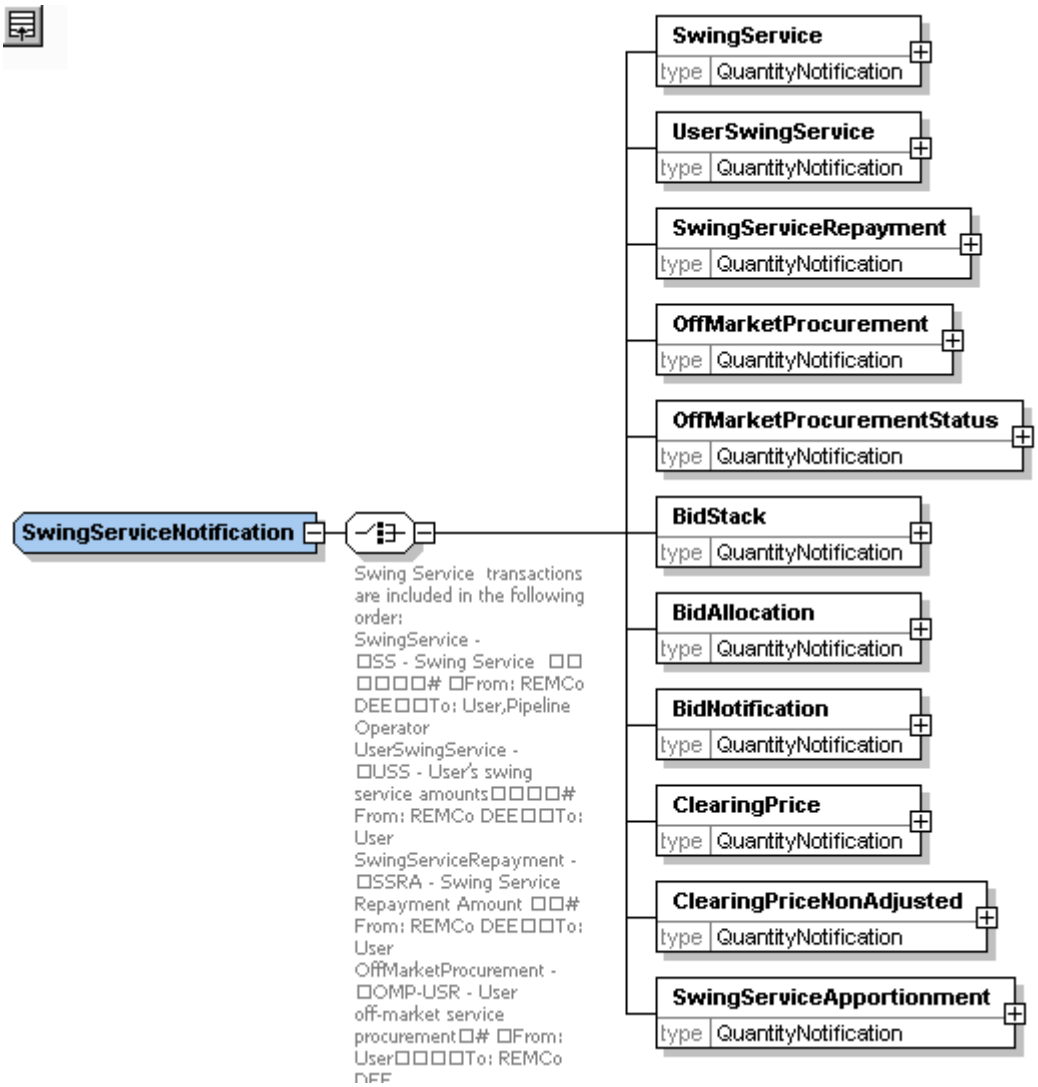



### *1.1.1.3.3 Transaction types*

The complex types defined are used to create ARSS sub-transactions in three types as detailed below:




ReconciliationNotification
Reconciliation transactions are included in the following order: ReconciliationAmount - □FUAFG - Forecasted unaccounted for gas□□# □ From: Network Operator□ To: REMCo DEE □UUAFG - User's Unaccounted For Gas□□□ # □From: Network Operator□To: REMCo DEE □RUAFG - User's Revised Unaccounted For Gas□# □ From: REMCo DEE□□To: Network Operator □AUAFG - Actual Unaccounted For Gas□□□ # □From: REMCo DEE□□ To: Network Operator □MRA-NOTF -
ReconciliationAmount
type QuantityNotification
EstimatedTotalWithdrawal
type QuantityNotification
HeatingDegreeDay
type QuantityNotification
TotalAmount
type QuantityNotification
HistoricalAmount
type QuantityNotification
NetSystemLoad
type QuantityNotification
DeemedWithdrawal
type QuantityNotification
DeemedInjection
type QuantityNotification
GatePointApportionment
type QuantityNotification




#### *1.1.1.4 Transactions_r13.xsd*

Added a list of transaction definitions that uses the transaction types for the SA/WA Gas market ARSS process in the Transactions_r13.xsd file. The following is the complete list of new transactions defined:

```
<xsd:element name="AllocationNotification" type="AllocationNotification"/>
<xsd:element name="ReconciliationNotification" type="ReconciliationNotification"/>
<xsd:element name="SwingServiceNotification" type="SwingServiceNotification"/>
```

## 2.3. Release notes

The table below shows all the schema files included in this draft schema. Files that have been added, removed or modified from the identified baseline are marked.

| File names | Added | Removed | Modified |
|---|---|---|---|
| Acknowledgements_r*.xsd | | | |
| aseXML_r*.xsd | | | X |
| BAR_r*.xsd | X | | |
| BulkDataTool_r*.xsd | | | |
| CATSReports_r*.xsd | | | |
| CATSTableReplication_r*.xsd | | | |
| ClientInformation_r*.xsd | | | |

| File names | Added | Removed | Modified |
|---|---|---|---|
| Common_r*.xsd | | | |
| CustomerDetails_r*.xsd | | | |
| CustomerTransfer_r*.xsd | | | |
| Electricity_r*.xsd | | | |
| Events_r*.xsd | | | |
| Faults_r*.xsd | | | |
| Gas_r*.xsd | | | |
| Header_r*.xsd | | | X |
| MDMTReport_r*.xsd | | | |
| MeterDataManagement_r*.xsd | | | |
| NetworkBilling_r*.xsd | | | |
| NMIDataAccess_r*.xsd | | | |
| Reports_r*.xsd | | | |
| ServiceOrder_r*.xsd | | | |
| TableReplication_r*.xsd | | | |
| Transactions_r*.xsd | | | X |
| No of files added | 1 | | |
| No of files removed | | 0 | |
| No of files modified | | | 3 |
| Total No of files | | | 23 |

### 2.3.1 File Change Summary

The section identifies and lists any changes between the various versions of the schema files and highlights any issues.

#### *1.1.1.5 Acknowledgements*

- No change

#### *1.1.1.6 aseXML*

- Added include statement for BAR_r13.xsd file

#### *1.1.1.7 BulkDataTool*

- No change

#### *1.1.1.8 BAR*

New File

#### *1.1.1.9 CATSReport*

- No change

#### *1.1.1.10 CATSTableReplication*

- No change

#### *1.1.1.11 ClientInformation*

- No change

#### *1.1.1.12 Common*

- No change

#### *1.1.1.13 CustomerDetails*

- No change

#### *1.1.1.14 CustomerTransfer*

- No change

#### *1.1.1.15 Electricity*

- No change

#### *1.1.1.16 Events*

- No change

#### *1.1.1.17 Faults*

- No change

#### *1.1.1.18 Gas*

- No change

#### *1.1.1.19 Header*

- Added value “BAR” to the enumerated list “TransactionGroup”.

#### *1.1.1.20 MDMTReport*

- No change

#### *1.1.1.21 MeterDataManagement*

- No change

#### *1.1.1.22 NetworkBilling*

- No change

#### *1.1.1.23 NMIDataAccess*

- No change

#### *1.1.1.24 Reports*

- No change

#### *1.1.1.25 ServiceOrder*

- No change

#### *1.1.1.26 TableReplication*

- No change

#### *1.1.1.27 Transactions*

- Added new transactions.

### 2.3.2 Change log

## 2.4. Test

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

### 2.4.1 Test Platforms

### 2.4.2 Test Cases

The following BAR sample files were used to test the defined transactions:

> *Note: The file names contain business transaction names as defined in the ICD v2.0 to enable mapping of the samples to the ICD.*

BAR_AUAFG_r13.xml
BAR_AUIW_r13.xml
BAR_BID-ALLOC_r13.xml
BAR_BID-INV_r13.xml
BAR_BID-PUB_r13.xml
BAR_BID-SSP_r13.xml
BAR_ECA_r13.xml
BAR_FUAFG_r13.xml
BAR_GPENG_r13.xml
BAR_GPENGPROF_r13.xml
BAR_HDD_r13.xml
BAR_IMDPROF_r13.xml
BAR_MCP-TANUSA_r13.xml
BAR_MCP-TSS_r13.xml
BAR_MRA-NOTF_r13.xml
BAR_NORM-NSL_r13.xml
BAR_NOT-UAI-USR_r13.xml
BAR_NPF_r13.xml
BAR_NPN_r13.xml
BAR_OMP-APP_r13.xml
BAR_OMP-SSP_r13.xml
BAR_OMP-STATUS_r13.xml
BAR_OMP-USR_r13.xml
BAR_PIPPRF_r13.xml
BAR_PIPRATIO_r13.xml
BAR_PPF_r13.xml
BAR_PPN_r13.xml
BAR_RUAFG_r13.xml
BAR_SDI_r13.xml
BAR_SHGA_r13.xml
BAR_SHPREGLST_r13.xml
BAR_SHPREGRMV_r13.xml
BAR_SHPREGRPT_r13.xml
BAR_SHPRPTREQ_r13.xml
BAR_SRAAQ_r13.xml
BAR_SS_r13.xml
BAR_SSRA_r13.xml
BAR_SSRAQ_r13.xml
BAR_SUBS-NOTF_r13.xml
BAR_TRA_r13.xml
BAR_UAI_r13.xml
BAR_UA-SHP_r13.xml
BAR_UDW_r13.xml
BAR_UETW_r13.xml
BAR_UHGA_r13.xml
BAR_UHRA_r13.xml
BAR_UPF_r13.xml
BAR_UPNA_r13.xml
BAR_USS_r13.xml
BAR_UUAFG_r13.xml

# 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 SP1
- Xerces 1.4.1
- Xerces 2.2.1
- XMLSpy 4.3

### 3.1.2 Test Cases

The following BAR sample files were used to test the defined transactions:

BAR_AUAFG_r13.xml
BAR_AUIW_r13.xml
BAR_BID-ALLOC_r13.xml
BAR_BID-INV_r13.xml
BAR_BID-PUB_r13.xml
BAR_BID-SSP_r13.xml
BAR_ECA_r13.xml
BAR_FUAFG_r13.xml
BAR_GPENG_r13.xml
BAR_GPENGPROF_r13.xml
BAR_HDD_r13.xml
BAR_IMDPROF_r13.xml
BAR_MCP-TANUSA_r13.xml
BAR_MCP-TSS_r13.xml
BAR_MRA-NOTF_r13.xml
BAR_NORM-NSL_r13.xml
BAR_NOT-UAI-USR_r13.xml
BAR_NPF_r13.xml
BAR_NPN_r13.xml
BAR_OMP-APP_r13.xml
BAR_OMP-SSP_r13.xml
BAR_OMP-STATUS_r13.xml
BAR_OMP-USR_r13.xml
BAR_PIPPRF_r13.xml
BAR_PIPRATIO_r13.xml
BAR_PPF_r13.xml
BAR_PPN_r13.xml
BAR_RUAFG_r13.xml
BAR_SDI_r13.xml
BAR_SHGA_r13.xml
BAR_SHPREGLST_r13.xml
BAR_SHPREGRMV_r13.xml
BAR_SHPREGRPT_r13.xml
BAR_SHPRPTREQ_r13.xml
BAR_SRAAQ_r13.xml
BAR_SS_r13.xml

BAR_SSRA_r13.xml
BAR_SSRAQ_r13.xml
BAR_SUBS-NOTF_r13.xml
BAR_TRA_r13.xml
BAR_UAI_r13.xml
BAR_UA-SHP_r13.xml
BAR_UDW_r13.xml
BAR_UETW_r13.xml
BAR_UHGA_r13.xml
BAR_UHRA_r13.xml
BAR_UPF_r13.xml
BAR_UPNA_r13.xml
BAR_USS_r13.xml

## 3.2. Dependency analysis

ASWG completes the dependency analysis and verifies the changes with the documentation provided.

| Item# | Transactions Impacted | Derived Type Impacted | Schema Filename | Modified Types | Base Type | Used by "Parent" Types |
|---|---|---|---|---|---|---|
| 1 | AllocationNotification | N/A | BAR.xsd | N/A | N/A | N/A |
| 2 | ReconcilliationNotification | N/A | BAR.xsd | N/A | N/A | N/A |
| 3 | SwingServiceNotification | N/A | BAR.xsd | N/A | N/A | N/A |

## 3.3. Conformance Report

The ASWG completes the conformance report validating each proposed change against the published aseXML guidelines.
*Note: Item# is a reference to items listed in the Description of the proposed approval.*
Table 3-1, Change Proposal Conformance Details

| Item# | Conformance Notes | Status |
|---|---|---|
| 1. | 1. The structure allows ClearingPrice with type Currency to be supplied for Energy element. The path: Energy\Subnets\SubnetQty\ClearingPrice - Correct<br>2. NSLQuantity could have more descriptive name. – Has benn corrected<br>3. Normalization with the type NSLQuantity also can be supplied for Energy element. The path: Energy\Subnets\SubnetQty\Normalisation. The structure is not correct if the Normalization is not energy. - Correct<br>4. What is the difference between the HistoricalDay element in Subnets and historicalDay attribute of each SubnetQty in the Subnets. – Has been corrected | Approved |

# 4. Review Disposition

The ASWG assists developers with schema related queries and confirms appropriateness of development against criteria.

## 4.1. Description of Changes - Approved and Accepted

Table 4-1, Review Notes for proposed approvals

| Item# | Review Notes | Status |
|---|---|---|
| | | One of the following: "Approved", "Rejected" or "Deferred". |

Note: Item# is a reference to items listed in the Description of the proposed approval.

## 4.2. Impact assessments on Participant's systems

The ASWG seeks the market participants' input on the expected business and technical impacts.

### 4.2.1 Business Impact

### 4.2.2 Technical Impact

## 4.3. Supplied Documents

See Configuration Items (New Baseline) for details. Once the schema is being reviewed, the draft version of the schema is to be published. The audience and means of publication is decided on a case-by-case basis. The general rule is to promote participant's early access to the proposed changes.

*Note: For the schema to be published, it must be ready for "Approval".*

# 5. Resolution

The ASWG provides a resolution for each change item contained in the Approval Proposal. The resolution is forwarded to the Originator for implementation considerations as required by respective Change Management Process.

## 5.1. Changes Approved and Accepted

The ASWG compiles the list of change items proposed for approval together with their resolution status in the table below.

*Note: Item# is a reference to items listed in the Description of Changes - Approved and Accepted.*

Table 5-1, Change Resolution

| Item# | Resolution Notes | Status |
|---|---|---|
| 1 | This change was submitted by TXU with a view that the aseXML transactions may be used by the SA/WA gas market at some stage in future.<br><br>Current position of REMCO is to use the CSV and the FTP for the wholesale trading in SA/WA Gas market instead of the aseXML transactions. | Approved |

Note: Item# is a reference to items listed in the Description of Changes - Approved and Accepted.