PARTICIPANT BUILD PACK 3: B2B SYSTEM INTERFACE DEFINITIONS

PREPARED BY:	MARKET DEVELOPMENT
DOCUMENT REF:	305133
VERSION:	3.~~6~~7
EFFECTIVE DATE:	~~16 November 2016~~TBA
STATUS:	FINAL

Approved for distribution and use by:

APPROVED BY:	~~XXXX~~Peter Geers
TITLE:	~~[Title]~~Chief Strategy & Markets Officer

DATE:	~~16 / 11 / 2016~~

Australian Energy Market Operator Ltd ABN 94 072 010 327 www.aemo.com.au info@aemo.com.au
NE Australian Energy Market Operator Ltd ABN 94 072 010 327 www.aemo.com.au info@aemo.com.au
NEW SOUTH WALES QUEENSLAND SOUTH AUSTRALIA VICTORIA AUSTRALIAN CAPITAL TERRITORY TASMANIA

Document Approval and Acceptance

AEMO APPROVAL

This document has been prepared by:

NAME:	**DANNY MCGOWAN**	
Position:	**Principal Regulatory Analyst**	
Signature:		**Date**:

This document has been reviewed and conforms to with the authorised changes to the Gas Interface Protocol:

NAME:	**~~PETER ALBERTS~~MICHELLE NORRIS**	
Position:	**~~Senior~~ Manager, ~~Gas Retail~~ Market ~~Development~~Change**	
Signature:		**Date**:

This document has been reviewed and conforms with AEMO's regulatory obligations:

NAME:	**~~TERRY GRIMWADE~~PETER GEERS**	
Position:	**~~Executive General Manager, Market Development~~Chief Strategy and Markets Officer**	
Signature:		**Date**:

Version History

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
1.0	31/1/02	D. Field		• Initial draft
1.1	8/3/02	D. Field	Global	• Changed the following transaction names: • 'MeterDataGasReadInput' to 'MeterReadInputNotification' • 'ReportRequest (GasHistoryRequest)' to 'MeterDataHistoryRequest' • 'ReportResponse (CSVReportFormat)' to 'MeterDataHistoryResponse' • 'ServiceOrderRequest' for SpecialRead to 'SpecialReadRequest' • 'ServiceOrderResponse' for Special Read to 'SpecialReadResponse' • 'ReportRequest (GasDataVerifyRequest)' to 'ReportResponse(GasDataVerifyResponse)' • 'MeterDataGasAccountCreation' to 'AccountCreationNotification' • 'ServiceOrderNotification' to 'ServiceOrderResponse' • Propagated these changes, and related schema changes, through entire document.
			3.2.1	• Added new Transaction Group of FieldWork (FLDW). Applied this group to FieldWorkNotification transaction
			3.2.2	• Added information to process sequence to identify additional times that transactions are passed
			3.2.2.1	• Clarified usage of elements for ServiceOrderRequest transaction.
			3.2.2.2	• Clarified usage of elements for ServiceOrderResponse transaction • Added 'JobEnquiryCode', 'ResponseType' and 'CurrentMeterData/MeterIndexValue' data elements

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
			3.3.2.2	• Added 'JurisdictionCode' data element for convergence with current MSATS usage
			3.3.2.3	• Made 'Event' element mandatory for convergence with current MSATS usage
			3.3.2.6	• Made 'Event' element mandatory for convergence with current MSATS usage
1.2	22/3/02	D. Field	Global	• Amended aseXML schema to enable increased re-use of GasStandingData type in other transactions. Propagated changes to tables, diagrams, descriptions, data dictionary and XML samples. • Changed Mandatory/Optional/Not Required definitions in tables. • Changed "UpstandRemoved" element to "MIRNStatus" • Changed "SupplyDisconnected" element to "MeterStatus"
1.3	5/4/02	D. Field	Global	• Updated GTPWG spreadsheet version to 2.2 • Added Process Flow column to Sequence Diagram tables. • Clarified the state of Transaction Specific Event Codes. • Corrected "NMIChecksum" aseXML element name to "checksum"
			1.3	• Updated versions of reference atefacts
			3	• Added "Generic Interfaces" section. "Specific Interfaces" moved to secion 4.
			4.1.1	• Added "MeterDataMissingNotification" transaction and associated Energy Flows
			4.1.2.1	• Added transaction 31A and 50 to table. • Added footnote to "Previous_Index_Value" and "Previous_Read_Date" CSV elements to clarify current status.

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
			4.1.2.2	• Added transaction 50A and corrected 31A to 31B
			4.1.3	• Added entire section – MeterDataMissingNotification
			4.1.5.2	• Added footnote to “Previous_Index_Value” and “Previous_Read_Date” CSV elements to clarify current status. • Amended capitalisation of “Type_Of_Read” CSV element
			4.1.6	• Updated Activity Diagram to clarify process
			4.1.6.1	• Corrected “ActionType” aseXML element name to “actionType”
			4.1.6.2	• Corrected “ResponseType” aseXML element name to “responseType”
			4.2.2	• Updated Activity Diagram to clarify process • Amended Process Sequence descriptions and diagrams to clarify process
			4.2.2.1	• Corrected “ActionType” aseXML element name to “actionType” • Added Job Enquiry Codes to aseXML element usage description to clarify requirements • Added “MeterInletPressure” aseXML element to request data in table, diagram and XML sample • Changed “A” and “B” type meters to “Simple” and “Complex” • Added comment to “PersonName” and “PhoneNumber” elements to advise that DB is not to retain this information
			4.2.2.2	• Changed “A” and “B” type meters to “Simple” and “Complex” • Corrected “ResponseType” aseXML element name to “responseType” • Clarified requirements for specific elements based on Business Rules • Added footnote to clarify current status of Meter Index requirements.

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
			4.2.4.1	• Added “Gas_Meter_Number” to CSV elements
			4.3.1	• Added “NMIStandingDataUpdateNotification” transaction
			4.3.2.1	• Added footnote to Process Sequence descriptions clarifying current status of address search return where multiple addresses are found • Clarified requirement of “JurisdictionCode” aseXML element
			4.3.2.3	• Changed “MIRNStatus” aseXML element to “MeterStatus”
			4.3.2.5	• Changed “MIRNStatus” aseXML element to “MeterStatus”
			4.3.3	• Added entire section – NMIStandingDataUpdateNotification
			4.4.2.1	• Amended “AmendSiteAccessDetails” to use xsi:type definition. Updated Spy diagram and XML sample
			A.1	• Updated data dictionary
			A.2	• Updated data dictionary
			C	• Clarified status of B2B Event Codes
			D	• Added transactions 31A, 31B, 49, 50, 50A, 289 and 338
1.4	29/04/02	D. Field, M. Kroumer	4.1.2.1	• Changed definition of CSV elements to allow “null” in Previous_Index_Value and Previous_Read_Date to allow for the provision of energy data following the validated meter read taken on meter installation. Consumed energy will be zero. PBP3 Change Log, #1.
			4.1.2.2	• Corrected transaction direction for MeterDataResponse. • PBP3 Change Log, #3.
			4.1.3	• Changed Process Sequence description to state that energy data provided to satisfy a Missing Meter Data Notification may be supplied either via a special transaction in response to the request or via a

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
				scheduled transaction. PBP3 Change Log, #4.
			4.1.5.2	• Clarified selection criteria for retrieval of the Gas History data. PBP3 Change Log, #5.
			4.1.6	• Changed Special Read process sequence to allow for cancellation of Special Read Request. PBP3 Change Log, #6.
			4.1.7	• Changed Meter Data Verify Request to allow the Retailer to provide a "Proposed Meter Index Value" and "Proposed Meter Read Date" for the Distributor to use for a re-estimation if agreeable. Clarified how the adjusted data may be obtained and utilised. PBP3 Change Log, #7.
			4.2.2.1	• Clarified the rules on when specific elements must be supplied in a Service Order Request transaction. PBP3 Change Log, #8.
			4.2.2	• Removed the ability to use an "Update" to a Service Order Request. PBP3 Change Log, #9.
			4.2.2.2	• Clarified the rules on when an index reading and energy data will be provided following completion of a Service Order. PBP3 Change Log, #10.
			4.2.2.2	• Added all GTPWG transactions that are valid for a Service Order Response transaction. PBP3 Change Log, #11.
			4.2.2.1	• Clarified which aseXML "Address" element is to be populated in a Service Order Request. PBP3 Change Log, #12.
			4.2.2.2	• Corrected aseXML elements from "DateServiceRequestCompleted" to "DateServiceOrderCompleted" and "TimeServiceRequestCompleted" to "TimeServiceOrderCompleted" as per PBP3 Change Log, #13, #33
			4.3.3	• Removed NMIStandingDataUpdate transaction (289) as this is now a

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
				manual process. PBP3 Change Log, #14.
			4.3.2.3 & 4.3.2.6	• Corrected MIRN Standing Data to allow for the fact that a meter may not be present when MIRN Standing Data is requested. Added MIRNStatus element and made all meter elements optional. PBP3 Change Log, #15.
			A.1	• Removed “Update” as valid value for actionType element. PBP3 Change Log, #16.
			A.1	• Added “Customer Read” as valid value for InvestigationCode element. PBP3 Change Log, #17.
			A.1	• Added MIRNStatus element. PBP3 Change Log, #18.
			A.2	• Added “E3” and “S3” as valid values for Estimation_Substitution_Type CSV element. PBP3 Change Log, #19.
			4.2.2.1	• Extended requirements for “MeterInletPressure” element to also be required for Upgrade Meter Size Service Order and optional for New Connection and Upgrade Service Size Service Orders. PBP3 Change Log, #20.
			4.2.4	• Addded note to Time Expired Meters and Mains/Service Renewal transactions to identify that the aseXML version of the transactions are not required for FRC Market Start and will be reviewed for implementation at a later date. PBP3 Change Log, #21.
			4.2.4	• Changed Mains/Service Renewal activity diagram to show that Distributor, not Retailer, is responsible for notifying customers. PBP3 Change Log, #22.
			A.1	• Changed “ServiceOrderNumber” element length from 36 to 10 and “ServiceProviderReference” element length from 36 to 15 to align with PBP1 Data Elements. PBP3 Change Log, #23.

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
			4.1.5	• Change Gas History process sequence and transactions to change request transaction to a manual process and note that aseXML response transaction is not required for Market Start. PBP3 Change Log, #24.
			4.4.4	• Added note to Route Change transaction to identify that the aseXML version of the transactions are not required for FRC Market Start and will be reviewed for implementation at a later date. PBP3 Change Log, #25.
			A.2	• Added the following codes to Estimation_Substitution_Reason_Code CSV element: • 10 – Delayed Read • 12 – Damaged Meter • 13 – Dial out of Alignment • 14 – Key Required • 15 – Access Overgrown • 16 – Hi/Low Failure • 17 – Meter Capacity Failure. • Descriptions of codes 12, 13,14 & 15 also added to ReasonForNoAccess. PBP3 Change Log, #26, #30, #32.
			4.3.2.3 & 4.3.2.6	• Added “MeterReadFrequency” element to NMI Discovery Response and NMI Standing Data Response. PBP3 Change Log, #27.
			A.1 & A.2	• Added “No Change” as valid value for “AdjustmentReasonCode” aseXML element and “NC” as valid value for “Adjustment_Reason_Code” CSV element. PBP3 Change Log, #28.
			A.2	• Added word “Special” in front of original meter read reason codes. Added new reason codes: SCH,INI, REM, OSO, MDV. PBP3 Change Log, #29.
			4.3.2.3	• Changed T281 & T284, individual service charges are replaced with generic category, expiry date and

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
				amount elements. PBP3 Change Log, #31.
			4.1.5.1, 4.4.4.1, 4.2.4.1	• Clarified the current usage of transactions 46, 75, 136 & 330. PBP3 Change Log, #34.
			4.1.5.1	• Synchronised data elements of CSVHistoryResponseData with CSVConsumptionData. PBP Change Log, #35.
			4.3.3.2, A.1	• Corrected usage of aseXML <Market> tag. PBP3 Change Log, #36.
			Global	• Clarified the value of CSVData when RecordCount is set to 0. PBP3 Change Log, #37.
			4.2.2.2	• Updated comment describing circumstances when Service Order Completion transaction must be generated. PBP3 Change Log, #38.
			4.1.5.1	• Clarified usage of Meter_Status data element in CSVHistoryResponseData. PBP3 Change Log, #39.
			4.4.3.1	• Removed postal address related elements from CSVAmendSiteAddressDetails. PBP3 Change Log, #40.
			Global	• Renamed T314 & T314A to cover priorities “C-K”. PBP3 Change Log, #41.
			4.5.2.1	• Modified CSV Data Elements for Network DuoS billing details transactions. PBP3 Change Log, #43
			4.5.2.1	• Added CSV data elements for new transaction T350. PBP3 Change Log, #42
			4.5.2.1	• Updated schema excerpt to include NetworkDUoSData ExcludedServices; Old_Transaction_ID and Old_Invoice_ Number made mandatory if Adjustment_Indicator is “C”; Retailer and Retailer_ID are removed from Data Dictionary; corrected MeterReadFrequency value; size of AccessDetails element is 160; added

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
				comment to Distributor_ID. PBP3 Change Log, #45
1.5	26/08/02	M. Kroumer	4.3.2.3	• Corrected data elements and usage comment for NMIDiscoveryResponse. PBP3 Change Log, #44
			A.2	• Added comment to clarify the order of CSV columns and the time stamp formats. PBP3 Change Log, #46 & #47.
			C	• Added a list of B2B event codes. PBP3 Change Log, #48.
			A.1	• Data Dictionary corrections: • aligned LoadDate data element type with aseXML schema; • corrected name of RevisedRead data element; • aligned case for a value in ReasonForNoAccess element; • added ProposedRead element. PBP3 Change Log, #49.
			A.1, A.2	• Added a footnote to clarify the use of codes and enumerations. PBP3 Change Log, #50.
			4.4.2.1, 4.4.3.1, 4.4.4.1	• Corrected transaction group in XML samples for AmendMeterRouteDetails. PBP3 Change Log, #51.
			4	• Explicitly prohibited the use of CDATA, <, >, & and hexadecimal characters. PBP3 Change Log, #52.
			4.2.2.1	• Added commentaries to the usage column of LoadDetails and MeterInletPressure. PBP3 Change Log, #53.
			4.2.2.1	• Revised usage column wording for COCNumber, PlumberLicence Number and StartWorkNoticeNumber/ PBP3 Change Log, #55.
			All	• Added specific event codes to transaction descriptions.
1.6	23/02/04	D.McGowan	4.5	• Change Request 7 (Network Billing Transactions) Add excluded services transactions for charge dispute handling.

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
			4.2.2	• Change Request 40 (Sevice Orders) Added commentary to the section 4.2.2 concerning valid requestor and reference to PBP1 as specified in Retail Market Change Request 40
			4.4	• Change Request 41 (Customer Details) Add Amend Customer Details transaction see section 4.4.5.
			4.1.6.1 and Appendix A1 aseXML data Elements	• Change Request 16. (SpecialReadRequest). Remove SRD capability from Special Read requests as the process is supported by AML Service Orders. This is documentation change only however the enumerated values defined in the AseXML schema remain at this point in time.
			A1. Data Dictionary, aseXML Data Elements	• Change Request 32. Correct the Adjustment Reason Code values to align with aseXML values. Eg : “Under Estimated” becomes “Under Estimate”, “Over Estimated” becomes “Over Estimate”.
			4.5	• Change Request 7a. Detailed design amendments to the Network Billing Disputes transaction
			4.6	• Change Request 41 ver 1.2. Introduction of the use of B2B transaction CustomerDetailsNotification (see section 4.6). Also delete the changes for Change Request 41 Amend Customer Details 4.4.5.
			Appendix C - Gas FRC Application Event Codes	• Change Request 17. Remove restrictions on event codes to allow participants to select and utilise a pertinent event code from the entire list. New paragraph inserted in Appendix C - Gas FRC Application Event Codes
			4.6	• Change Request 41 ver 1.3. Technical investigation has reveled that reference to CSV component for the CustomerDetailsNotification in the PBP is incorrect. The Change Request 41 ver 1.2 refers to the CSV name as “CSVCustomerDetails”. It should have been “CSVCustomer”.

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
			General	• Minor changes to introduction and approval section to reflect post FRC operation.
1.7	08/11/04	D.McGowan	4.3.2	• Change Request 14b ver 1.1. Add functionality which returns up to 99 full addresses plus meter serial numbers and associated MIRNs found where ,more than 1 matches are found on a MIRNDiscoveryResponse. Clarify the fields RB must provide in Request and the DB search approach.
			4.5.2 A.2. CSV Data Elements	• Change Request 49. The current definition for "period" means that there is NO information in the transaction that indicates what bill period the charge applies. The retailer has no way of knowing for what consumption period the bill applies. Billing Month and Demand Period element is to be added to CSV.
1.8	18/07/05	D.McGowan	General	• Minor changes to approval section to reflect organisational changes
1.9	1/06/09	D.McGowan	General 4.5.2.1 4.5.1, 4.5.2 A.1 aseXML Data Elements A.2. CSV Data Elements 4.5.1, 4.5.2 A.1 aseXML Data Elements	• Minor changes to approval section to reflect organisational changes • Change Request 88. Underscore character is missing from two fields in the NetworkDUoSDataTariffD/CSV Data transaction. Change approved 31/8/2007. • Change Request 87. Inclusion of Tarrif H Network Billing File.

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
			A.2. CSV Data Elements	• Change Request 93. Add further clarity by adding additional comments to some of the fields. • Change Request 95. Add further clarity to the XML Sample.
3.0	01/07/10	S. Monaco		• Ensure document complies with AEMO standard • Replace obsolete terminology • 4.4.4 and 4.4.4.1 deleted • Add References to Predecessors
3.1	30/07/2012	S. Macri	4.2 4.3 4.4 A.1 aseXML Data Elements A.2 CSV Data Elements	• IN027/11 (NECF Changes) Changes to add in customer classification as per NECF. • IN016/10 CoC digit increase. • IN007/11 PLN digit increase
3.2	1/1/2014	D.McGowan		• IN004/12 – Redundant Provision and minor GIP and Spec Pack changes
3.3	1/4/2014	D.McGowan	4.3.2.6	• IN004/12 – Redundant Provision and minor GIP and Spec Pack changes
3.4	1/7/2014	D.McGowan		• IN017/13 Service Order Process Flow updates
3.5	14/9/2015	N.Datar	4.2.2.1 Appendix A.1 aseXML Data Elements	• IN006/09 – JCC combination and Service Order Response additional comment field
3.6	16/11/2016	N.Datar	A.2 CSV Data Elements	• IN031/11 – Fast Track process for release of address enumerations
3.7	TBA	D. McGowan and A. Pathy		• IN003/20 - Adoption of the two B2B Life Support (LS) transactions including adopting a version of the

VERSION	DATE	AUTHOR(S)	SECTION	CHANGE
				aseXML schema that contain these LS transactions.

Executive Summary

This document is the Participant Build Pack 3 - B2B System Interface Definitions for delivery of the IT System Interfaces to support the operation of the Victorian Gas Retail Contestable Market.

References to Predecessors

To reflect the governance changes implemented on 1 July 2009, this document has been amended to remove references to the Victorian Energy Networks Corporation (VENCorp) and replace such references with Australian Energy Market Operator (AEMO). Where any content inadvertently refers to VENCorp it should be read as referring to AEMO.

It should be noted that participant ID “VENCORP” remains as the participant ID for AEMO as the gas market operator in Victoria and Queensland.

Table of Contents

1. INTRODUCTION 2221

1.1 PURPOSE 2221
1.2 AUDIENCE 2221
1.3 RELATED DOCUMENTS 2221
1.4 DEFINITIONS AND ACRONYMS 2322
1.5 OVERVIEW AND STRUCTURE 2322

2. OVERVIEW OF INTERFACES 2423

2.1 OVERVIEW 2423
2.2 SCOPE 2423

3. GENERIC INTERFACES 2524

4. SPECIFIC INTERFACES 2524

4.1 METER READS – ENERGY AND CONSUMPTION 2524
4.1.1 Overview 2524
4.1.2 Provision of Energy Flow Data 2726
4.1.3 Missing Energy Data 3635
4.1.4 Meter Read Input 3938
4.1.5 (Not Implemented – This section was previously Gas History) 4342
4.1.6 Special Reads 4443
4.1.7 Meter Data Verification 5453
4.1.8 Account Creation 6362
4.2 SERVICE ORDERS 6766
4.2.1 Overview 6766
4.2.2 Service Orders 6968
4.2.3 Not Implemented (This section was previously Time Expired Meters) 9695
4.2.4 Not Implemented (This section was previously Mains/Service Renewal) 9695
4.3 MIRN DISCOVERY 9695
4.3.1 Overview 9695
4.3.2 Provision of MIRN Data 9695
4.4 ROUTE AND SITE INFORMATION 126124
4.4.1 Overview 126124
4.4.2 Site Access Information 126124
4.4.3 Site Address Information 132130
4.4.4 Not Implemented (This section was previously Route Change) 137135
4.5 NETWORK BILLING 137135
4.5.1 Overview 137135
4.5.2 Network DUoS Billing Details 139137
4.6 CUSTOMER DETAILS INFORMATION 161159
4.6.1 Overview 161159
4.6.2 Amend Customer Details 161159
4.7 LIFE SUPPORT INFORMATION 168166

4.7.1 Overview ..... 168~~166~~
4.7.2 LifeSupportNotification (T80 and T81) ..... 168~~166~~
4.7.3 LifeSupportRequest (T82 and T83) ..... 174~~171~~

APPENDIX A. DATA DICTIONARY ..... 176~~174~~

A.1 ASEXML DATA ELEMENTS ..... 176~~174~~

APPENDIX B. ASEXML STANDARD EVENT CODES ..... 236~~234~~

APPENDIX C. GAS FRC APPLICATION EVENT CODES ..... 237~~235~~

APPENDIX D. TABLE OF TRANSACTIONS CROSS-REFERENCE ..... 243~~241~~

~~1. INTRODUCTION ..... 20~~

~~1.1 PURPOSE ..... 20~~
~~1.2 AUDIENCE ..... 20~~
~~1.3 RELATED DOCUMENTS ..... 20~~
~~1.4 DEFINITIONS AND ACRONYMS ..... 21~~
~~1.5 OVERVIEW AND STRUCTURE ..... 21~~

~~2. OVERVIEW OF INTERFACES ..... 22~~

~~2.1 OVERVIEW ..... 22~~
~~2.2 SCOPE ..... 22~~

~~3. GENERIC INTERFACES ..... 23~~

~~4. SPECIFIC INTERFACES ..... 23~~

~~4.1 METER READS – ENERGY AND CONSUMPTION ..... 23~~
~~*4.1.1 Overview ..... 23*~~
~~*4.1.2 Provision of Energy Flow Data ..... 25*~~
~~*4.1.3 Missing Energy Data ..... 34*~~
~~*4.1.4 Meter Read Input ..... 37*~~
~~*4.1.5 (Not Implemented – This section was previously Gas History) ..... 40*~~
~~*4.1.6 Special Reads ..... 41*~~
~~*4.1.7 Meter Data Verification ..... 51*~~
~~*4.1.8 Account Creation ..... 59*~~
~~4.2 SERVICE ORDERS ..... 63~~
~~*4.2.1 Overview ..... 63*~~
~~*4.2.2 Service Orders ..... 65*~~
~~*4.2.3 Not Implemented (This section was previously Time Expired Meters) ..... 89*~~
~~*4.2.4 Not Implemented (This section was previously Mains/Service Renewal) ..... 89*~~
~~4.3 MIRN DISCOVERY ..... 89~~
~~*4.3.1 Overview ..... 89*~~
~~*4.3.2 Provision of MIRN Data ..... 89*~~
~~4.4 ROUTE AND SITE INFORMATION ..... 117~~
~~*4.4.1 Overview ..... 117*~~
~~*4.4.2 Site Access Information ..... 117*~~
~~*4.4.3 Site Address Information ..... 123*~~

~~*4.4.4 Not Implemented (This section was previously Route Change)* ..... 128~~
~~4.5 NETWORK BILLING ..... 128~~
~~*4.5.1 Overview* ..... 128~~
~~*4.5.2 Network DUoS Billing Details* ..... 130~~
~~4.6 CUSTOMER DETAILS INFORMATION ..... 152~~
~~*4.6.1 Overview* ..... 152~~
~~*4.6.2 Amend Customer Details* ..... 152~~
~~**APPENDIX A. DATA DICTIONARY ..... 158**~~
~~A.1 ASEXML DATA ELEMENTS ..... 158~~
~~**APPENDIX B. ASEXML STANDARD EVENT CODES ..... 209**~~
~~**APPENDIX C. GAS FRC APPLICATION EVENT CODES ..... 210**~~
~~**APPENDIX D. TABLE OF TRANSACTIONS CROSS-REFERENCE ..... 216**~~

Table of Figures

Figure 4-1 Provision of Energy Flow Data Activity Diagram ..... 27~~25~~
Figure 4-2 Meter Data Notification Sequence Diagram ..... 28~~26~~
Figure 4-3 Meter Data Response Sequence Diagram ..... 28~~26~~
Figure 4-4 MeterDataNotification aseXML schema ..... 32~~29~~
Figure 4-5 MeterDataResponse aseXML schema ..... 34~~32~~
Figure 4-6 Missing Meter Data Activity Diagram ..... 36~~34~~
Figure 4-7 Missing Meter Data Sequence Diagram ..... 37~~34~~
Figure 4-8 MeterDataMissingNotification aseXML schema ..... 38~~36~~
Figure 4-9 Meter Read Input Activity Diagram ..... 40~~37~~
Figure 4-10 Meter Read Input Sequence Diagram ..... 40~~38~~
Figure 4-11 MeterReadInputNotification aseXML schema ..... 43~~40~~
Figure 4-12 Special Reads Activity Diagram ..... 44~~41~~
Figure 4-13 Special Read Cancellation Activity Diagram ..... 45~~42~~
Figure 4-14 Special Read Initiation Sequence Diagram ..... 46~~42~~
Figure 4-15 Special Read Cancellation Sequence Diagram ..... 46~~43~~
Figure 4-16 Special Read Closure (No Access) Sequence Diagram ..... 47~~44~~
Figure 4-17 GasSpecialReadNoAccess type aseXML schema ..... 51~~48~~
Figure 4-18 Meter Data Verification Activity Diagram ..... 54~~51~~
Figure 4-19 Meter Data Verification Request Sequence Diagram ..... 55~~51~~
Figure 4-20 Meter Data Verification Response Sequence Diagram ..... 56~~52~~
Figure 4-21 MeterDataVerifyRequest aseXML schema ..... 57~~54~~
Figure 4-22 GasMeterVerifyRequestData type aseXML schema ..... 58~~54~~
Figure 4-23 MeterDataVerifyResponse aseXML schema ..... 61~~57~~
Figure 4-24 GasMeterVerifyResponseData type aseXML schema ..... 61~~57~~
Figure 4-25 Account Creation Activity Diagram ..... 63~~59~~
Figure 4-26 Account Creation Sequence Diagram ..... 64~~59~~
Figure 4-27 AccountCreationNotification aseXML schema ..... 65~~61~~
Figure 4-28 Service Orders Normal Activity Diagram ..... 69~~65~~
Figure 4-29 Service Orders Cancellation Activity Diagram ..... 70~~66~~
Figure 4-30 Service Order Initiation Sequence Diagram ..... 71~~67~~
Figure 4-31 Service Order Cancellation Sequence Diagram ..... 71~~67~~
Figure 4-32 Service Order Closure Sequence Diagram ..... 73~~69~~
Figure 4-33 ServiceOrderRequest aseXML schema ..... 79~~74~~
Figure 4-34 GasServiceOrderType type aseXML schema ..... 80~~75~~
Figure 4-35 GasServiceOrderDetails type aseXML schema ..... 81~~76~~
Figure 4-36 ServiceOrderResponse aseXML schema ..... 91~~84~~
Figure 4-37 GasServiceOrderNotificationData type aseXML schema ..... 92~~85~~
Figure 4-38 GasMeterStandingData aseXML schema ..... 93~~86~~
Figure 4-39 MIRN Discovery Activity Diagram ..... 97~~90~~
Figure 4-40 MIRN Discovery Request Sequence Diagram ..... 97~~90~~
Figure 4-41 MIRN Discovery Response Sequence Diagram ..... 98~~91~~
Figure 4-42 NMIDiscoveryRequest aseXML schema ..... 101~~94~~
Figure 4-43 NMIDiscoveryResponse aseXML schema ..... 105~~98~~
Figure 4-44 GasStandingData type (high level) aseXML schema ..... 105~~98~~

Figure 4-45 GasMasterStandingData aseXML schema ..... 106~~99~~
Figure 4-46 GasMeterStandingData aseXML schema ..... 108~~100~~
Figure 4-47 ServicePoint aseXML schema ..... 109~~101~~
Figure 4-48 NMI Standing Data Activity Diagram ..... 118~~109~~
Figure 4-49 NMI Standing Data Request Sequence Diagram ..... 118~~109~~
Figure 4-50 NMI Standing Data Response Sequence Diagram ..... 119~~110~~
Figure 4-51 NMIStandingDataRequest aseXML schema ..... 121~~112~~
Figure 4-52 NMIStandingDataResponse aseXML schema ..... 124~~115~~
Figure 4-53 Update Site Access Information Activity Diagram ..... 127~~118~~
Figure 4-54 Update Site Access Information Sequence Diagram ..... 128~~118~~
Figure 4-55 AmendMeterRouteDetails/AmendSiteAccessDetails aseXML schema ..... 129~~120~~
Figure 4-56 GasStandingDataUpdate type aseXML schema ..... 130~~121~~
Figure 4-57 Update Site Address Information Activity Diagram ..... 132~~123~~
Figure 4-58 Update Site Address Information Sequence Diagram ..... 133~~124~~
Figure 4-59 AmendMeterRouteDetails/CSVAmendSiteAddressDetails aseXML schema ..... 137~~128~~
Figure 4-60 Network DUoS Billing Activity Diagram ..... 139~~130~~
Figure 4-61 Network DUoS Billing Sequence Diagram ..... 140~~131~~
Figure 4-62 NetworkDUoSBillingNotification aseXML schema ..... 160~~151~~
Figure 4-63 Amend Customer Details Activity Diagram ..... 162~~153~~
Figure 4-64 Customer Details Change Sequence Diagram ..... 163~~154~~
Figure 4-65 CustomerDetailsNotification/CSVCustomer aseXML schema ..... 166~~157~~

1. Introduction

1.1 Purpose

The purpose of the Interface Definitions section of Participant Build Pack (PBP) 3 is to define the behaviour of the business and IT systems as viewed from the outside. The definitions identify the manner in which the participants in the Victorian Gas Market communicate with each other to manage their day-to-day business. The PBP present the participant's systems as a "black box" highlighting only the necessary interfaces that are required for all participants to specify, build and test their systems.

1.2 Audience

The document has been written for business and IT personnel within the *Market Participants, Distributors and Transmission System Service Providers,* as well as AEMO business and IT personnel. It is expected that the audience will have a familiarity with the overall business endeavour of Gas FRC in Victoria and with the artefacts listed in the Related Documents section of this document.

1.3 Related Documents

There are a number of related documents or artefacts that have been issued as part of Participant Build Packs 1 and 2 and should be read in conjunction with this document. The table below defines the documents and the versions used to generate this PBP3.

REF	ARTEFACT NAME	VERSION	RESPONSIBLE PARTY OR AUTHORS
1	Retail Market Procedures (Victoria)	Current version as published on AEMO's website	*Gas Retail Consultative Forum – Victoria (GRFC-V)*
2	Participant Build Pack 1 Process Maps	Current version as published in the GIP	*Retail Business Process Working Group (RBPWG)*
3	Participant Build Pack 1 Transaction Definition Table	Current version as published in the GIP	*Retail Business Process Working Group (RBPWG)*
4	Participant Build Pack 1 Data Element Definition	Current version as published in the GIP	*Retail Business Process Working Group (RBPWG)*
5	Guidelines for Development of a Standard for Energy Transactions in XML (aseXML)	Current version as published at http://www.aemo.com.au/aseXML/index.htm	*AseXML Standards Working Group (ASWG)*
6	Master MIBB Report List	Current version as published on AEMO's website	*AEMO*

REF	ARTEFACT NAME	VERSION	RESPONSIBLE PARTY OR AUTHORS
7	Participant Build Pack 2 Glossary	Current version as published in the GIP	*AEMO*
8	Participant Build Pack 2 Usage Guidelines	Current version as published in the GIP	*AEMO*
9	Participant Build Pack 2 - Interface Definitions	Current version as published in the GIP	*AEMO*
10	Participant Build Pack 3 – FRC B2B System Architecture	Current version as published in the GIP	*AEMO*

* The GIP is published on the AEMO website.

1.4 Definitions and Acronyms

All terms related to this document are defined in the Participant Build Pack (PBP) 2 – Glossaty Ref. [7].

Please note that acronyms MIRN (Meter Installation Registration Number) and NMI (National Meter Identifier) are used in this document interchangeably.

1.5 Overview and Structure

This document is organised in a number of sections as described below:

SECTION	DESCRIPTION
Overview of Interfaces	This section describes the relationship between the various interfaces.
Specific Interfaces	This section describes the parts of the interface that are specific or only apply to a given interface.
Appendices	A number of appendices provided in this document to facilitate transaction search via cross-references and supply event codes and data elements details. Data Dictionary for aseXML transaction elements and CSV file column designators aseXML Standard Event Codes Gas FRC Application Event Codes Table of Transactions cross references

2. Overview of Interfaces

2.1 Overview

This document focuses on the specific aseXML interfaces to be used in the B2B transactions for Gas FRC. The interfaces focus on business and application logic. The interfaces are grouped based on the transaction categorisation defined in the PBP1 Transaction Definition Table.

Every group of specific interfaces has one or more activity diagrams associated with it. The activity diagrams are based on the Process Flow diagrams, Ref. [2], delivered with PBP1. These process flows are presented as UML activity diagrams. The UML sequence diagrams representing the same processes with relevant aseXML transactions accompany the activity diagrams.

A sequence diagram has a table associated with them. Each row in this table describes correlation between the process flow and the corresponding aseXML transaction.

2.2 Scope

This document describes in detail these transactions from the Participant Build Pack 1 Transaction Definition Table that are to be delivered with aseXML messages and labeled as B2B in the "Type" column. Thus, this document does not include any transactions that will be communicated via MIBB (see Ref. [6]) or by other means (e.g. e-mail or fax).

Transactions labelled as B2M or M2B in the Participant Build Pack 1 Transaction Definition Table form part of the Participant Build Pack 2.

The transactions from the Participant Build Pack 1 Transaction Definition Table that have interfaces defined in Participant Build Pack 3 are listed in the following table.

GROUP	TRANSACTION DEFINITION TABLE REFERENCE
Meter Reads - Energy and Consumption	3, 3A, 6, 9, 9A, 12, 13, 13A, 15, 17, 17A, 31, 31A, 31B, 41, 41A,46, 49, 50, 50A, 51, 51A, 53, 53A, 231, 242, 243, 246, 246A
Service Orders	87, 87A, 92, 93, 101, 101A, 104, 108, 125, 136, 151, 151A, 154, 157, 310, 312, 314, 316, 318, 320, 310A, 311, 312A, 313, 314A, 315, 316A, 317, 318A, 319, 320A, 321, 330
MIRN Discovery	280, 281, 284
Route and Site Information	66, 67, 68, 69, 75
Network Billing	331,332, 350, 351, 352, 353
Customer Details	70, 80, 81, 82, 83

Commented [DM1]: Updated post PPC. See Ref # 57 attachment F of IIR

3. Generic Interfaces

Detailed protocols and mechanisms for handling messages and transactions are described in detail in Ref.[10], Participant Build Pack 3 – FRC B2B System Architecture.

4. Specific Interfaces

Due to the ongoing transaction harmonisation efforts between various energy markets some transactions may not necessarily have the most descriptive names assigned to them. The Gas Industry re-uses as many as possible of the NEM national aseXML transactions that carry identical or near identical set of data elements. This sometimes may result in aseXML transaction name not spelling out the actual purpose of the transaction specified in the Transaction Definition Table. However this greatly reduces the documentation maintenance. As a result of using aseXML transactions, elements that are utilised by other energy markets but not by Gas FRC will be marked as “Not Required” or “NR”.

Note, that the use of CDATA (non-parsed character data), characters **<**, **>**, **&**, and hexadecimal characters is prohibited in all Victorian Gas transactions. Entity escape characters must be used to handle any special characters.

4.1 Meter Reads – Energy and Consumption

4.1.1 Overview

Meter Reads – Energy and Consumption are the transactions between Distributors and Retailers that provide and manage the usage data for bill calculation. The following table shows the Meter Reads – Energy and Consumption group of aseXML transactions and the corresponding transactions from the Table of Transactions.

ASEXML TRANSACTION	TRANSACTION TABLE	
Transaction Name	Ref No	Transaction Type
MeterDataNotification	9	Energy Flow for Special Read (Not customer transfer)
	13	Energy Flow for Special Read (Customer transfer)
	17	Energy Flow for Disconnection Read
	31A	Energy Flow for Customer Own Read
	41	Energy Flow for Scheduled or Special Read
	50	Energy Flow for Missing Reads
	51	Energy Flow for Estimated Read
	53	Energy Flow for Substituted Read

ASEXML TRANSACTION	TRANSACTION TABLE	
	246	Energy Flow Adjustment for RB
MeterDataResponse	9A	Energy Flow for Special Read (Not customer transfer) Response
	13A	Energy Flow for Special Read (Customer transfer) Response
	17A	Energy Flow for Disconnection Read Response
	31B	Energy Flow for Customer Own Read Response
	41A	Energy Flow for Scheduled or Special Read Response
	50A	Energy Flow for Missing Reads Response
	51A	Energy Flow for Estimated Read Response
	53A	Energy Flow for Substituted Read Response
	246A	Energy Flow Adjustment for RB Response
MeterDataMissingNotification	49	Retailer requesting missing meter reading data
MeterReadInputNotification	15	Disconnection Read
	31	Customers Own Read by Phone
SpecialReadRequest	3	Special Read Request
SpecialReadResponse	3A	Special Read Request Response
	6	Special Read Request No Access Advice
MeterDataVerifyRequest	242	Meter Data Verification Request
MeterDataVerifyResponse	243	Meter Data Verification Response
AccountCreationNotification	12	Account Creation Transaction
	231	Account Creation Transaction

These transactions belong to the Meter Data Management (MDMT) Transaction Group in aseXML.

The transactions have been grouped into the following for definition:

- Provision of Energy Flow Data
- Missing Energy Data

- Meter Read Input
- Gas History
- Special Reads
- Meter Data Verification
- Account Creation

These are defined below.

4.1.2 Provision of Energy Flow Data

Energy Flow data is transferred from a Distributor to a Retailer as part of a scheduled process following data collection and energy calculation. The activity diagram below shows the high level process:

FIGURE 4-1 PROVISION OF ENERGY FLOW DATA ACTIVITY DIAGRAM

Process Sequence

Following collection of Meter Read Data and subsequent calculation of energy data, a Distributor will combine the data for each Retailer for the agreed period into comma separated value (CSV) format and forward this to the applicable Retailers as MeterDataNotification transactions. The data will be forwarded within the timeframe prescribed in the Retail Market Procedures or as otherwise agreed.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-2 METER DATA NOTIFICATION SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	MeterDataNotification	Distributor	FRC Hub	2.12 -> 2.23
2	MeterDataNotification	FRC Hub	Retailer	

After a Retailer has processed the CSV data a MeterDataResponse message is returned to the Distributor to provide advice that the data has been processed. The MeterDataResponse transaction will identify whether the processing was:

- Successful – all CSV records were successfully processed
- Partially successful – processing of some CSV records failed
- Failure – no processing of the CSV data was possible

by containing event records for all errors detected. This may be only one event record if the entire processing was a failure, or many – one for each CSV record that failed – if the processing was partially successful. The Distributor can use the error information to correct the data for resubmission to the applicable Retailer

The diagram below shows the sequence of events for this transaction:

FIGURE 4-3 METER DATA RESPONSE SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	MeterDataResponse	Retailer	FRC Hub	2.25 -> 2.22
2	MeterDataResponse	FRC Hub	Distributor	

4.1.2.1 MeterDataNotification

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: 9 - ENERGY FLOW FOR SPECIAL READ (NOT CUSTOMER TRANSFER), 13 - ENERGY FLOW FOR SPECIAL READ (CUSTOMER TRANSFER), 17 - ENERGY FLOW FOR DISCONNECTION READ, 31A - ENERGY FLOW FOR CUSTOMER OWN READ, 41 - ENERGY FLOW FOR SCHEDULED OR SPECIAL READ, 50 - ENERGY FLOW FOR MISSING READS, 51 - ENERGY FLOW FOR ESTIMATED READ, 53 - ENERGY FLOW FOR SUBSTITUTED READ, 246 - ENERGY FLOW ADJUSTMENT FOR RB
Trigger	This interface can be triggered as a result of a Scheduled Meter Read or Special Meter Read.
Pre-conditions	Calculation of energy flow data for relevant Retailer for the agreed period
Post-conditions	Retailer application has saved the CSV data.
Transaction acknowledgment specific event codes	3610, 3627, 3648, 3649 - 3655, 3657, 3658, 3676, 3679, 3665, 3666, 3670, 3672, 3674

The MeterDataNotification transaction transfers the Meter Read data in CSV format from the Distributor to the Retailer.

Transaction Data Elements

TRANSACTION:		METERDATANOTIFICATION
Received From:		Distributor
Sent To:		Retailer
Data Element	Mandatory / Optional / Not Required	Usage
RecordCount	M	Specifies the number of records contained in the populated CSV element excluding the header row.
CSVConsumption Data	M	Contains the data in CSV format. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".

CSV Elements

CSVCONSUMPTIONDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
RB_Reference_Number	O	Required when this record fulfills a Special Read Request
Reason_for_Read	M	
Gas_Meter_Number	M	
Gas_Meter_Units	M	
Previous_Index_Value	O	Required unless this is the first read for a meter. If not provided the Consumed_Energy will be zero.
Previous_Read_Date	O	Required unless this is the first read for a meter. If not provided the Consumed_Energy will be zero.
Current_Index_Value	M	
Current_Read_Date	M	

CSVCONSUMPTIONDATA		
Heading	Mandatory/ Optional	Comment
Volume_Flow	M	Volume Flow is measured in cubic meters
Average_Heating_Value	M	
Pressure_Correction_Factor	M	
Consumed_Energy	M	Consumed Energy is measured in Megajoules
Type_of_Read	M	
Estimation_Substitution_Type	O	Required if Type of Read = “E” or “S”
Estimation_Substitution_Reason_ Code	O	Required if Type of Read = “E” or “S”
Meter_Status	M	If “Plugged” this is a Disconnection Read
Next_Scheduled_Read_Date	M	
Hi_Low_Failure	M	
Meter_Capacity_Failure	M	
Adjustment_Reason_Code	M	If not = "NC" indicates Meter Data Adjustment
Energy_Calculation_Date_Stamp	NR	This element is defined for use in the corresponding B2M transactions. It is not required for the transactions in this document.
Energy_Calculation_Time_Stamp	NR	This element is defined for use in the corresponding B2M transactions. It is not required for the transactions in this document.

The transaction is implemented as the MeterDataNotification transaction in aseXML. The transaction is in the following format:

FIGURE 4-4 METERDATANOTIFICATION ASEXML SCHEMA

The CSV data is included in the CSVConsumptionData element.

XML Sample

```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-1234</MessageID>
    <MessageDate>2002-02-14T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-1234" transactionDate="2002-02-14T12:00:00+10:00">
        <MeterDataNotification version="r9">
            <RecordCount>4</RecordCount>
            <CSVConsumptionData>
            NMI,NMI_Checksum,RB_Reference_Number,Reason_for_Read,Gas_Meter_Number,...
            6754654368,5,TX364576,SRF,MR46578,...
            9087686454,7,,,3546586,...
            2784756396,4,,,G4657343,...
            8394784831,5,TX85746347,SRT,F465738,...
            </CSVConsumptionData>
        </MeterDataNotification>
    </Transaction>
</Transactions>
```

4.1.2.2 MeterDataResponse

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: 9A - ENERGY FLOW FOR SPECIAL READ (NOT CUSTOMER TRANSFER) RESPONSE, 13A - ENERGY FLOW FOR SPECIAL READ (CUSTOMER TRANSFER) RESPONSE, 17A - ENERGY FLOW FOR DISCONNECTION READ RESPONSE, 31B - ENERGY FLOW FOR CUSTOMER OWN READ RESPONSE, 41A - ENERGY FLOW FOR SCHEDULED OR SPECIAL READ RESPONSE, 50A - ENERGY FLOW FOR MISSING READS RESPONSE 51A - ENERGY FLOW FOR ESTIMATED READ RESPONSE, 53A - ENERGY FLOW FOR SUBSTITUTED READ RESPONSE, 246A ENERGY FLOW ADJUSTMENT FOR RB RESPONSE
Trigger	Completion of processing of the CSV data from the MeterDataNotification transaction
Pre-conditions	Energy data has been delivered via MeterDataNotification transaction and processed
Post-conditions	Distributor has a record of success or failure of processing of the energy data, and all errors detected.
Transaction acknowledgment specific event codes	None.

The MeterDataResponse transaction advises the Distributor of the success or failure of the processing of the CSV data file. It also identifies any errors detected and records not processed within the CSV data.

Transaction Data Elements

TRANSACTION:		METERDATARESPONSE
Received From:		Retailer
Sent To:		Distributor
Data Element	Mandatory / Optional / Not Required	Usage
ActivityID	M	Identifier of the processing activity that generated this transaction
AcceptedCount	M	Count of the records that were processed successfully
LoadDate	M	Date the processing took place
Event	O	May be repeated any number of times. If processing was partially successful there will be one event for each record that failed.

The transaction is implemented as the MeterDataResponse transaction in aseXML. The transaction is in the following format:

FIGURE 4-5 METERDATARESPONSE ASEXML SCHEMA

XML Sample


```
<Header>
    <From description="TXU Retail">TXUR</From>
    <To description="TXU Networks">TXUN</To>
    <MessageID>TXUR-MSG-4321</MessageID>
    <MessageDate>2002-02-14T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUR-TXN-4321" transactionDate="2002-02-14T12:00:00+10:00"
initiatingTransactionID="TXUN-TXN-1234">
        <MeterDataResponse version="r6">
            <ActivityID>756475</ActivityID>
            <AcceptedCount>4</AcceptedCount>
            <LoadDate>2002-02-14T13:00:00</LoadDate>
            <Event class="Application" severity="Error">
                <Code>3453</Code>
                <Context>6754654368,5,TX364576,SRF,MR46578,...</Context>
                <Explanation>NMI not known</Explanation>
            </Event>
            <Event class="Application" severity="Error">
                <Code>5463</Code>
                <Context>2784756396,4,,,G4657343,...</Context>
                <Explanation>InvalidNMI Checksum</Explanation>
            </Event>
        </MeterDataResponse>
    </Transaction>
</Transactions>
```

4.1.3 Missing Energy Data

The Missing Energy Data transaction is used by a Retailer to request any energy data that has not been received from a Distributor by the expected date. The Distributor will obtain the requested data and provide it to the Retailer via the Meter Data Notification transaction. This may be either a special transaction in response to this request or the next scheduled transaction.

The activity diagram below shows a high level view of this process:

FIGURE 4-6 MISSING METER DATA ACTIVITY DIAGRAM

Process Sequence

A Retailer will identify any MIRNs for which energy data is overdue from a Distributor and submit a MeterDataMissingNotification transaction to the responsible Distributor. The transaction will contain the list of MIRNs and the last read date for which the Retailer has energy data. The data is supplied in CSV format.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-7 MISSING METER DATA SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	MeterDataMissingNotification	Retailer	FRC Hub	2.29 -> 2.12
2	MeterDataMissingNotification	FRC Hub	Distributor	

The Distributor will provide the required data via a MeterDataNotification transaction. This may be either a special transaction in response to this request or the next scheduled transaction.

Note: There is no defined method for a Distributor to notify a Retailer of errors in the Missing Data Request transaction (eg. Distributor is not responsible for requested MIRN). It is a Retailer's responsibility to escalate the request via a manual process if a Meter Data Notification transaction is not satisfying the request.

4.1.3.1 MeterDataMissingNotification

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: • 49 – RETAILER REQUESTING MISSING METER READING DATA
Trigger	This interface is triggered when a Retailer determines that expected energy data for a MIRN is overdue.
Pre-conditions	None
Post-conditions	Distributor has a list of MIRNs for which energy data is required.
Transaction acknowledgment specific event codes	3665, 3666, 3670, 3672, 3674

The MeterDataMissingNotification transaction is used by a Retailer to request overdue energy data from a Distributor.

Transaction Data Elements

TRANSACTION:	METERDATAMISSINGNOTIFICATION
Received From:	Retailer

Sent To:		Distributor
Data Element	Mandatory / Optional / Not Required	Usage
RecordCount	M	Specifies the number of records contained in the populated CSV element, excluding the record with column designators
CSVMissingMeterData/ CSVData	M	Contains embedded data in CSV format. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".

CSV Elements

CSVMISSINGMETERDATA/CSVDATA		
Heading	Mandatory / Optional / Not Required	Comment
NMI	M	
NMI_Checksum	M	
Last_Read_Date	M	The last read on which the meter reads have been supplied to the Retailer prior to the missing consumed energy data.

The transaction is implemented as the MeterDataMissingNotification transaction in aseXML.

The transaction is in the following format:

FIGURE 4-8 METERDATAMISSINGNOTIFICATION ASEXML SCHEMA

XML Sample

```
<Header>
    <From description="TXU Retail">TXUR</From>
    <To description="TXU Networks">TXUN</To>
    <MessageID>TXUR-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUR-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
        <MeterDataMissingNotification version="r9">
            <CSVMissingMeterData>
                <RecordCount>3</RecordCount>
                <CSVData>
                NMI,NMI_Checksum,Last_Read_Date
                1876546765,3,2002-01-01
                8798767645,5,2002-01-02
                3874958676,6,2002-01-01
                </CSVData>
            </CSVMissingMeterData>
        </MeterDataMissingNotification>
    </Transaction>
</Transactions>
```


4.1.4 Meter Read Input

The Meter Read Input transaction is used by the Retailer to supply a Gas Meter Index reading to a Distributor. The Distributor then uses the index data to calculate the consumed energy for the customer. The scenarios where this may occur are:

- A meter reader has left a Customers Own Reading card at a customer's premises following an unsuccessful read attempt. The customer has contacted the Retailer with the meter read.
- A Retailer has disconnected a customer for debt and must then provide the meter data to the Distributor for energy calculations.

The activity diagram below shows a high level view of this process:

FIGURE 4-9 METER READ INPUT ACTIVITY DIAGRAM

Process Sequence

A Retailer will obtain the Meter Index Data either from a customer or directly on disconnection of a meter. The Retailer uses a MeterReadInputNotification transaction to send the index data to the Distributor for storage and later use for energy flow calculations.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-10 METER READ INPUT SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	MeterReadInputNotification	Retailer	FRC Hub	2.16 -> 2.6

2	MeterReadInputNotification	FRC Hub	Distributor	1.9 -> 2.6

4.1.4.1 MeterReadInputNotification

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: • 15 – DISCONNECTION READ, • 31 – CUSTOMERS OWN READ BY PHONE
Trigger	This interface is triggered when a Retailer obtains an index reading from a gas meter.
Pre-conditions	Meter index data is obtained by the Retailer
Post-conditions	Meter index data saved by Distributor
Transaction acknowledgment specific event codes	None.

The MeterReadInputNotification transaction transfers meter index and read data from the Retailer to the Distributor.

Transaction Data Elements

TRANSACTION:	METERREADINPUTNOTIFICATION	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
NMI	M	
checksum	M	Implemented as an attribute of the NMI aseXML element
MeterSerialNumber	M	
MeterStatus	M	Identifies whether supply has been disconnected (plugged) or not.
Current/ IndexValue	M	
Current/ ReadDate	M	
Current/ TypeOfRead	M	

The transaction is implemented as the MeterReadInputNotification transaction in aseXML utilising the xsi:type="ase:GasStandingData" construct for the ReadInputData element.

The transaction is in the following format:

FIGURE 4-11 METERREADINPUTNOTIFICATION ASEXML SCHEMA

See diagram 4-20 for the format of the GasStandingData type construct.

XML Sample

```
<Header>
    <From description="TXU Retail">TXUR</From>
    <To description="TXU Networks">TXUN</To>
    <MessageID>TXUR-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="TXUR-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
    <MeterReadInputNotification version="r9">
      <ReadInputData xsi:type="ase:GasStandingData" version="r9">
        <NMI checksum="4">3847564736</NMI>
          <MeterData>
            <MeterSerialNumber>M7654</MeterSerialNumber>
            <MeterStatus>Turned on</MeterStatus>
            <MeterRead>
              <Current>
                <IndexValue>333</IndexValue>
                <ReadDate>2002-01-01</ReadDate>
                <TypeOfRead>Customer Own Read</TypeOfRead>
              </Current>
            </MeterRead>
          </MeterData>
        </ReadInputData>
      </MeterReadInputNotification>
  </Transaction>
</Transactions>
```

4.1.5 (Not Implemented – This section was previously Gas History)

4.1.6 Special Reads

The Special Read transactions manage a requirement by a Retailer to obtain a meter read from a Distributor outside of the scheduled read for a specific meter. The scenarios where this may occur are:

- Final read when a customer is moving out of the premises
- Reference read (e.g. when a tenant is moving out of the premises)
- Read for a customer transfer

The activity diagram below is a high level view of this process:

FIGURE 4-12 SPECIAL READS ACTIVITY DIAGRAM

Cancellation Process

FIGURE 4-13 SPECIAL READ CANCELLATION ACTIVITY DIAGRAM

Process Sequence

When a Retailer has a requirement for a Special Meter Read a SpecialReadRequest is generated and forwarded to the Distributor. The request will contain an actionType set to "New" to identify that this is a new request.

Once the Distributor has logged the Special Read Request and generated a Work Request Number a SpecialReadResponse containing the Work Request Number is forwarded to the Retailer to provide a reference for the Retailer.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-14 SPECIAL READ INITIATION SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	SpecialReadRequest	Retailer	FRC Hub	1.3 -> 1.4
2	SpecialReadRequest	FRC Hub	Distributor	
3	SpecialReadResponse	Distributor	FRC Hub	1.20 -> 1.21
4	SpecialReadResponse	FRC Hub	Retailer	

If the Retailer identifies that the Special Read is no longer required, the Retailer will forward a SpecialReadRequest transaction to the Distributor with the actionType set to “Cancel” to identify that this is a cancellation.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-15 SPECIAL READ CANCELLATION SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	SpecialReadRequest	Retailer	FRC Hub	1.23 -> 1.24
2	SpecialReadRequest	FRC Hub	Distributor	

The Retailer cannot modify a Special Read once accepted by the Distributor. If a Retailer identifies a change to the Special Read requirements (ie. a new date) the Retailer will cancel the original Special Read and create a new one.

If, in the attempt to carry out the special read, a Distributor is unable to gain access to the meter, a SpecialReadResponse is forwarded to the Retailer detailing the inability to gain access and the reason why. In this instance the Special Read Request is deemed to be satisfied, and the Retailer must make another Special Read Request if the read is still required.

If the Distributor has received a cancellation notice from the Retailer, the Distributor will cancel the Special Read and forward a SpecialReadResponse to the Retailer to confirm closure.

In both of the above instances the response will contain a responseType set to "Closure" to identify that the Special Read is closed.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-16 SPECIAL READ CLOSURE (NO ACCESS) SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	SpecialReadResponse	Distributor	FRC Hub	1.11 -> 1.2
2	SpecialReadResponse	FRC Hub	Retailer	

If the Special Read is concluded successfully the energy data is forwarded to the Retailer via a scheduled MeterDataNotification transaction.

4.1.6.1 SpecialReadRequest

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: 3 – SPECIAL READ REQUEST
Trigger	The trigger for this transaction could be: Request from customer for a meter read, or Customer Transfer Change to Special Read requirement
Pre-conditions	None Special Read Request has been raised
Post-conditions	Distributor has logged Special Read Request and created Work Request for special read. Distributor has logged Special Read cancellation
Transaction acknowledgment specific event codes	3601, 3613, 3644, 3675, 3678

The SpecialReadRequest transaction is used by a Retailer to request a special meter read from a Distributor. It is also used to cancel an existing Special Read via an "actionType" attribute within the transaction element.

Transaction Data Elements

TRANSACTION:	SPECIALREADREQUEST	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
actionType	M	"New" for new Special Read Request "Cancel" for Special Read Cancellation Implemented as an attribute of the SpecialReadRequest aseXML element.
NMI	M	
checksum	M	Implemented as an attribute of the NMI aseXML element
SpecialReadReasonCode	M	
ServiceOrderNumber	M	Reference number generated by the Retailer

AccessDetails	O	Optional free text field that may be populated at CSR discretion to assist Meter Reader in gaining access
AppointmentDetail/ Preferred/ Date	O	Date of appointment for Special Read. Required for new Special Read Request
AppointmentDetail/ Preferred/ Time	O	Optional field for input of appointment time if applicable

The transaction is implemented as the SpecialReadRequest transaction in aseXML. This transaction is in the same format as the ServiceOrderRequest transaction. See section 4.2.2.1 for the generic format of the ServiceOrderRequest transaction.

XML Sample

```
<Header>
    <From description="TXU Retail">TXUR</From>
    <To description="TXU Networks">TXUN</To>
    <MessageID>TXUR-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUR-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
        <SpecialReadRequest version="r9" actionType="'New'">
            <ServiceOrder>
                <NMI checksum="2">3746584765</NMI>
                <ServiceOrderType xsi:type="ase:GasServiceOrderType">
                    <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
                </ServiceOrderType>
                <ServiceOrderNumber>SO8765</ServiceOrderNumber>
            </ServiceOrder>
            <ServicePoint>
                <AccessDetails>Be careful</AccessDetails>
            </ServicePoint>
            <AppointmentDetail>
                <Preferred>
                    <Date>2002-01-01</Date>
                </Preferred>
            </AppointmentDetail>
        </SpecialReadRequest>
    </Transaction>
</Transactions>
```

4.1.6.2 SpecialReadResponse

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: • 3A – SPECIAL READ REQUEST RESPONSE, • 6 – SPECIAL READ REQUEST NO ACCESS ADVICE
Trigger	1. Generation of Work Request in response to a MeterDataSpecialReadRequest 2. Special Read Cancelled or Attempted with No Access
Pre-conditions	1. Special Read Request logged by Distributor 2. Distributor has closed Work Request
Post-conditions	1. Retailer has a Work Request number from the Distributor 2. Retailer closes Special Read Request
Transaction acknowledgment specific event codes	3602

The SpecialReadResponse transaction provides an initial response to a SpecialReadRequest transaction by supplying a Service Provider Reference number to the requesting Retailer. The transaction is then also used to provide closure of the Special Read Request if the meter reader is unable to access the meter on the given appointment date.

Transaction Data Elements

TRANSACTION:	SPECIALREADRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
responseType	M	"Initial" for initial response "Closure" when Special Read is closed with No Access or Cancellation Implemented as an attribute of the SpecialReadResponse aseXML element.
NMI	M	
checksum	M	Implemented as an attribute of the NMI aseXML element
SpecialReadReasonCode	M	As supplied in the request record

TRANSACTION:	SPECIALREADRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
MeterSerialNumber	O	Required for No Access response
ServiceOrderNumber	M	Reference number generated by the Retailer
ServiceProviderReference	M	Reference number generated by the Distributor
AppointmentDetail/ Preferred/ Date	O	Required for No Access response
AppointmentDetail/ Preferred/ Time	O	Required if supplied in corresponding ServiceOrderRequest transaction
ReasonForNoAccess	O	Required for No Access response
NextAvailableReadDate	O	Required for No Access response
Event	O	May be repeated any number of times.

The transaction is implemented as the SpecialReadResponse transaction in aseXML. This transaction is in the same format as the ServiceOrderResponse transaction. See section 4.2.2.2 for the generic format of the ServiceOrderResponse transaction.

The SpecialReadNoAccess element for this transaction is in the following format:

FIGURE 4-17 GASSPECIALREADNOACCESS TYPE ASEXML SCHEMA

XML Sample

Initial Response


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00"
initiatingTransactionID="TXUR-TXN-463547">
        <SpecialReadResponse version="r9" responseType="Initial">
            <ServiceOrder>
                <NMI checksum="2">3746584765</NMI>
                <ServiceOrderType xsi:type="ase:GasServiceOrderType">
                    <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
                </ServiceOrderType>
                <ServiceOrderNumber>SO8765</ServiceOrderNumber>
                <ServiceProviderReference>WR1234</ServiceProviderReference>
            </ServiceOrder>
        </SpecialReadResponse>
    </Transaction>
</Transactions>
```

No Access Response


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00"
initiatingTransactionID="TXUR-TXN-463547">
        <SpecialReadResponse version="r9" responseType="Closure">
            <ServiceOrder>
                <NMI checksum="2">3746584765</NMI>
                <ServiceOrderType xsi:type="ase:GasServiceOrderType">
                    <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
                    <MeterSerialNumber>M1234</MeterSerialNumber>
                </ServiceOrderType>
                <ServiceOrderNumber>SO8765</ServiceOrderNumber>
                <ServiceProviderReference>WR1234</ServiceProviderReference>
            </ServiceOrder>
            <AppointmentDetail>
                <Preferred>
                    <Date>2002-01-01</Date>
                </Preferred>
            </AppointmentDetail>
            <NotificationData xsi:type="ase:GasServiceOrderNotificationData" version="r9">
                <NoAccess>
                    <SpecialReadNoAccess>
                        <ReasonForNoAccess>Gate Locked</ReasonForNoAccess>
                        <NextAvailableReadDate>2002-03-01</NextAvailableReadDate>
                    </SpecialReadNoAccess>
                </NoAccess>
            </NotificationData>
        </SpecialReadResponse>
    </Transaction>
</Transactions>
```

4.1.7 Meter Data Verification

The Meter Data Verification transactions are used when a Retailer needs to seek verification of the meter data from a Distributor. This may be as the result of a customer complaint or an anomaly identified by the Retailer.

The activity diagram below is a high level view of this process:

FIGURE 4-18 METER DATA VERIFICATION ACTIVITY DIAGRAM

Process Sequence

When a Retailer has a requirement to verify supplied meter data the Retailer generates a MeterDataVerifyRequest transaction and forwards this to the Distributor. If the Retailer has obtained or estimated a Meter Index Value that the Retailer believes is more accurate than that supplied by the Distributor, this Index Value may be provided in the transaction.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-19 METER DATA VERIFICATION REQUEST SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	MeterDataVerifyRequest	Retailer	FRC Hub	10.3 -> 10.8
2	MeterDataVerifyRequest	FRC Hub	Distributor	

On receipt of a MeterDataVerifyRequest transaction a Distributor will determine the best course of action. If a proposed Meter Index Value has been supplied, the Distributor may use this for a new energy calculation. Alternatively a Distributor may choose to carry out a Special Read to obtain the correct Meter Index Value.

When the Distributor has determined the correct meter data a MeterDataVerifyResponse transaction is generated and forwarded to the Retailer. This transaction contains the current index value and an adjustment reason. If the data has not been adjusted the AdjustmentReason will be "No Change".

In addition, if an adjustment is required the adjusted energy data is forwarded to the Retailer via a scheduled MeterDataNotification transaction. The adjusted data will supersede the data that was previously provided for the timeframe in question. However, depending on the process used by the Distributor to obtain the adjusted data, the Current Read Date may differ from that provided the superseded data. The Retailer will have to decide how to use this data in the customer's billing cycle.

The diagram below shows the sequence of events for these transactions:

FIGURE 4-20 METER DATA VERIFICATION RESPONSE SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	MeterDataVerifyResponse	Distributor	FRC Hub	10.5 -> 10.6
2	MeterDataVerifyResponse	FRC Hub	Retailer	
3	MeterDataNotification (if adjusted)	Distributor	FRC Hub	2.12 -> 2.23
4	MeterDataNotification (if adjusted)	FRC Hub	Retailer	

4.1.7.1 MeterDataVerifyRequest

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: • 242 – METER DATA VERIFICATION REQUEST
Trigger	The trigger for this transaction could be: • a customer complaint • an anomaly identified by the Retailer
Pre-conditions	Perceived inconsistency in a Retailers energy data
Post-conditions	Distributor has logged a requirement for data verification.
Transaction acknowledgment specific event codes	3646, 3647, 3671

The MeterDataVerifyRequest transaction is used by a Retailer to request confirmation of energy data as supplied by a Distributor.

Transaction Data Elements

TRANSACTION:	METERDATAVERIFYREQUEST	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
NMI	M	
checksum	M	Implemented as an attribute of the NMI aseXML element
InitiatorReferenceNumber	M	Reference number generated by the Retailer
CurrentRead/ IndexValue	M	
CurrentRead/ ReadDate	M	
ProposedRead/ IndexValue	O	Either none or both of these elements must be populated.
ProposedRead/ ReadDate	O	
InvestigationCode	M	
InvestigationDescription	O	Free text field that may be used to assist an investigation

The transaction is implemented as the MeterDataVerifyRequest transaction in aseXML utilising the xsi:type="ase:GasMeterVerifyRequestData" construct for the VerifyRequestData element.

The transaction is in the following format:

FIGURE 4-21 METERDATAVERIFYREQUEST ASEXML SCHEMA

The GasMeterVerifyRequestData type construct is in the following format:

FIGURE 4-22 GASMETERVERIFYREQUESTDATA TYPE ASEXML SCHEMA

XML Sample


```xml
<Header>
    <From description="TXU Retail">TXUR</From>
    <To description="TXU Networks">TXUN</To>
    <MessageID>TXUR-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUR-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
        <MeterDataVerifyRequest version="r9">
            <VerifyRequestData xsi:type="ase:GasMeterVerifyRequestData" version="r9">
                <NMI checksum="3">2837465876</NMI>
                <InitiatorReferenceNumber>R54326</InitiatorReferenceNumber>
                <CurrentRead>
                    <IndexValue>222</IndexValue>
                    <ReadDate>2002-01-01</ReadDate>
                </CurrentRead>
                <ProposedRead>
                    <IndexValue>222</IndexValue>
                    <ReadDate>2002-01-01</ReadDate>
                </ProposedRead>
                <InvestigationCode>Customer Read</InvestigationCode>
                <InvestigationDescription>Much higher than last year</InvestigationDescription>
            </VerifyRequestData>
        </MeterDataVerifyRequest>
    </Transaction>
</Transactions>
```

4.1.7.2 MeterDataVerifyResponse

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: • 243 – METER DATA VERIFICATION RESPONSE
Trigger	The trigger for this transaction is a completed investigation following the receipt of a MeterDataGasVerifyDataRequest transaction
Pre-conditions	Distributor has a confirmed meter index reading
Post-conditions	Retailer has a confirmed meter index reading
Transaction acknowledgment specific event codes	3602

The MeterDataVerifyResponse transaction is used by a Distributor to respond to a MeterDataVerifyRequest from a Retailer.

Transaction Data Elements

TRANSACTION:	METERDATAVERIFYRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
NMI	M	As input in the request transaction
checksum	M	Implemented as an attribute of the NMI aseXML element As input in the request transaction
InitiatorReferenceNumber	M	As input in the request transaction
RevisedRead/ IndexValue	M	
RevisedRead/ IndexDate	M	
AdjustmentReasonCode	M	If = "No Change" then no adjustment is required
Event	O	May be repeated any number of times. The Event element will identify any errors occurring in the processing of the request record.

The transaction is implemented as the MeterDataVerifyResponse transaction in aseXML utilising the xsi:type="ase:GasMeterVerifyResponseData" construct for the MeterVerifyResponseData element.

The transaction is in the following format:

FIGURE 4-23 METERDATAVERIFYRESPONSE ASEXML SCHEMA

The GasMeterVerifyResponseData type construct is in the following format:

FIGURE 4-24 GASMETERVERIFYRESPONSEDATA TYPE ASEXML SCHEMA

XML Sample

Adjustment Required


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00"
initiatingTransactionID="TXUR-TXN-463547">
        <MeterDataVerifyResponse version="r9">
            <VerifyResponseData xsi:type="ase:GasMeterVerifyResponseData" version="r9">
                <NMI checksum="3">2837465876</NMI>
                <InitiatorReferenceNumber>R54326</InitiatorReferenceNumber>
                <RevisedRead>
                    <IndexValue>200</IndexValue>
                    <ReadDate>2002-01-01</ReadDate>
                </RevisedRead>
                <AdjustmentReasonCode>Over Estimate</AdjustmentReasonCode>
            </VerifyResponseData>
        </MeterDataVerifyResponse>
    </Transaction>
</Transactions>
```


No Adjustment Required


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-46735" transactionDate="2002-01-01T12:00:00"
initiatingTransactionID="TXUR-TXN-463547">
        <MeterDataVerifyResponse version="r9">
            <VerifyResponseData xsi:type="ase:GasMeterVerifyResponseData" version="r9">
                <NMI checksum="3">2837465876</NMI>
                <InitiatorReferenceNumber>R54326</InitiatorReferenceNumber>
                <RevisedRead>
                    <IndexValue>223</IndexValue>
                    <ReadDate>2002-01-04</ReadDate>
                </RevisedRead>
                <AdjustmentReasonCode>No Change</AdjustmentReasonCode>
            </VerifyResponseData>
        </MeterDataVerifyResponse>
    </Transaction>
</Transactions>
```

4.1.8 Account Creation

When a customer transfers to a new Retailer the Distributor passes the necessary data to the new Retailer to enable that Retailer to create an account for the customer. The Account Creation transaction contains some meter read data and some site data.

The old Retailer is provided with the final meter read data as part of the process.

The diagram below is a high level view of this process:

FIGURE 4-25 ACCOUNT CREATION ACTIVITY DIAGRAM

Process Sequence

When a Distributor has obtained a final read on a customer's meter, and receives confirmation from AEMO that the customer's transfer has been approved the Distributor forwards the required meter data to the new Retailer via an AccountCreationNotification transaction.

As part of this process the final read energy record is forwarded to the old Retailer via a MeterDataNotification transaction.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-26 ACCOUNT CREATION SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	AccountCreationNotification	Distributor	FRC Hub	1.14 -> 1.13
2	AccountCreationNotification	FRC Hub	New Retailer	
3	MeterDataNotification	Distributor	FRC Hub	2.12 -> 2.23
4	MeterDataNotification	FRC Hub	Old Retailer	

4.1.8.1 AccountCreationNotification

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	**THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE:** • **12 – ACCOUNT CREATION TRANSACTION,** • **231 – ACCOUNT CREATION TRANSACTION**
Trigger	Meter Read for customer transfer was successful and Distributor receives approval for the transfer from AEMO
Pre-conditions	Customer transfer request has been fully approved
Post-conditions	New Retailer has required data to initiate an account.
Transaction acknowledgment specific event codes	3669

The AccountCreationNotification transaction provides the new Retailer with sufficient data about a customer to create a new account.

Transaction Data Elements

TRANSACTION:	ACCOUNTCREATIONNOTIFICATION	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
NMI	M	
checksum	M	Implemented as an attribute of the NMI aseXML element
MeterSerialNumber	M	
MeterTypeSizeCode	M	
Current/ IndexValue	M	
Current/ ReadDate	M	
ScheduledReadingDayNumber	M	
AccessDetails	O	Optional data that will be provided if available
MelwayGridReference	O	Optional data that will be provided if available
MeterPosition	O	Optional data that will be provided if available

The transaction is implemented as the AccountCreationNotification transaction in aseXML utilising the xsi:type="ase:GasStandingData" construct for the AccountCreationData element.

The transaction is in the following format:

FIGURE 4-27 ACCOUNTCREATIONNOTIFICATION ASEXML SCHEMA

See Figure 4-20 for the format of the GasStandingData type construct.

XML Sample


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
        <AccountCreationNotification version="r9">
            <AccountCreationData xsi:type="ase:GasStandingData" version="r9">
                <NMI checksum="3">2456765432</NMI>
                <MeterData>
                    <MeterSerialNumber/>
                    <MeterTypeSizeCode>A1</MeterTypeSizeCode>
                    <BasicMeter>
                        <ScheduledReadingDayNumber>23</ScheduledReadingDayNumber>
                    </BasicMeter>
                </MeterData>
                <SiteData>
                    <AccessDetails>Be careful</AccessDetails>
                    <MelwayGridReference>23 A12</MelwayGridReference>
                    <MeterPosition>BY</MeterPosition>
                </SiteData>
            </AccountCreationData>
        </AccountCreationNotification>
    </Transaction>
</Transactions>
```

4.2 Service Orders

4.2.1 Overview

Service Orders are the transactions between Retailers and Distributors that manage the provision, maintenance and removal of gas services and meters. The following table shows the Service Orders group of aseXML transactions and the corresponding transactions from the Table of Transactions.

ASEXML TRANSACTION	TABLE OF TRANSACTIONS	
Transaction Name	Ref No	Transaction Type
ServiceOrderRequest	87	Meter Fix Request “A” or “B” Type
	101	Meter Change Request
	151	Meter Removal Request
	310	Service Connection Request
	312	Service Disconnection Request
	314	Service Orders for Priority C-K
	316	Relocate Service Connection Request
	318	Upgrade Service Size Request
	320	Upgrade Meter Size Request
ServiceOrderResponse	87A	Meter Fix Request “A” or “B” Type Response
	92	Meter Fix Completed
	93	No Access to complete Meter Fix
	101A	Meter Change Request Response
	104	No Access to complete Meter Change
	108	Meter Change Complete
	125	Meter Update Complete
	151A	Meter Removal Request Response
	154	No Access to complete Meter Removal
	157	Meter Removal Complete
	310A	Service Connection Request Response
	311	Service Connection Complete
	312A	Service Disconnection Request Response

ASEXML TRANSACTION	TABLE OF TRANSACTIONS	
	313	Service Disconnection Complete
	314A	Service Orders for Priority C-K Response
	315	Service Orders Complete for A-K
	316A	Relocate Service Connection Request Response
	317	Relocate Service Complete
	318A	Upgrade Service Size Request Response
	319	Upgrade Service Size Complete
	320A	Upgrade Meter Size Request Response
	321	Upgrade Meter Size Complete
FieldWorkNotification	136	Time Expired Meters Notification
	330	Notification of Mains/Service Renewal

The ServiceOrderRequest and ServiceOrderResponse transactions belong to the Service Orders (SORD) Transaction Group in aseXML.

The FieldWorkNotification transaction belongs to the Field Work (FLDW) Transaction Group in aseXML.

The transactions have been grouped into the following for definition:

- Service Orders

These are defined below.

4.2.2 Service Orders

The Service Orders transactions are used by a Retailer to request services other than Meter Reads from a Distributor. The activity diagrams below show the high level process:

Normal Process

FIGURE 4-28 SERVICE ORDERS NORMAL ACTIVITY DIAGRAM

Cancellation Process

FIGURE 4-29 SERVICE ORDERS CANCELLATION ACTIVITY DIAGRAM

Process Sequence

When a Retailer requires a service from a Distributor other than a Special Meter Reading, the Retailer will raise a ServiceOrderRequest and forward it to the relevant Distributor for action. The request will contain an actionType set to "New" to identify that this is a new Service Order.

When the Distributor has received and logged the ServiceOrderRequest the Distributor must validate that the Retailer is a valid requestor in accordance with the Job Enquiry Code Table defined in Participant Build Pack 1. If the Retailer is a valid requestor the Distributor will generate a Work Request Number and return this number to the Retailer for reference via a ServiceOrderResponse transaction. The response will contain a responseType set to "Initial" to identify that this is an initial response. The Distributor will then attempt to satisfy the Service Order.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-30 SERVICE ORDER INITIATION SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	ServiceOrderRequest	Retailer	FRC Hub	99.3.3 -> 99.3.4
2	ServiceOrderRequest	FRC Hub	Distributor	
3	ServiceOrderResponse	Distributor	FRC Hub	99.3.5 -> 99.3.6
4	ServiceOrderResponse	FRC Hub	Retailer	

If the Retailer identifies that the service is no longer required, the Retailer will forward a ServiceOrderRequest transaction to the Distributor with the actionType set to “Cancel” to identify that this is a cancellation.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-31 SERVICE ORDER CANCELLATION SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	ServiceOrderRequest	Retailer	FRC Hub	99.3.18 -> 99.3.19
2	ServiceOrderRequest	FRC Hub	Distributor	

A Service Order cannot be modified by the Retailer once accepted by the Distributor. If a Retailer identifies a change to the Service Order requirements the Retailer will cancel the original Service Order and create a new one.

If, in the attempt to satisfy the Service Order, a Distributor is unable to gain access to the site or meter, the Distributor will forward a ServiceOrderResponse to the Retailer detailing the inability to gain access and the reason why. In this instance the Service Order Request is deemed to be satisfied, and the Retailer must make another Service Order Request if the work is still required.

If the Distributor has received a cancellation notice from the Retailer, the Distributor will close the Work Request and forward a ServiceOrderResponse to the Retailer to confirm closure.

If the Distributor is able to complete the Service Order a ServiceOrderResponse transaction is forwarded to the Retailer with the job conclusion details.

In addition, when a Service Order is initiated by a Distributor that results in:

- removal of a meter,
- installation of a meter,
- obtaining a validated meter read

The Distributor will forward a ServiceOrderResponse transaction on completion of the Service order to the Retailer to provide the meter data and meter index.

Retailers to receive "Service Order Completion" notice for all distributor-initiated jobs that are site-specific and can be associated with a MIRN, excluding service renewal jobs.

In all the above instances the response will contain a responseType set to "Closure" to identify that the Service Order is closed.

Whenever a validated meter reading is obtained as part of the Service Order completion, including the removal and installation of a meter, the energy data for the MIRN is calculated and forward to the Retailler via a MeterDataNotification.

If the ServiceOrderRequest was initialised by a Retail who is not the current FRO the Distributor will and forward theMeterDataNotification transaction to the current FRO and the .ServiceOrderResponse will be sent to the valid requestor who initialised the ServiceOrderRequest. .

The diagram below shows the sequence of events for this transaction:

FIGURE 4-32 SERVICE ORDER CLOSURE SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	ServiceOrderResponse	Distributor	FRC Hub	99.3.12 -> 99.3.13
2	ServiceOrderResponse	FRC Hub	Retailer	
3	MeterDataNotification (If applicable)	Distributor	FRC Hub	2.12 -> 2.23
4	MeterDataNotification (If applicable)	FRC Hub	Retailer	

4.2.2.1 ServiceOrderRequest

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: 87 – METER FIX REQUEST "SIMPLE" OR "COMPLEX" TYPE 101 – METER CHANGE REQUEST 151 – METER REMOVAL REQUEST 310 – SERVICE CONNECTION REQUEST 312 – SERVICE DISCONNECTION REQUEST 314 – SERVICE ORDERS FOR PRIORITY C – K 316 – RELOCATE SERVICE CONNECTION REQUEST 318 – UPGRADE SERVICE SIZE REQUEST 320 – UPGRADE METER SIZE REQUEST
Trigger	Retailer has a requirement for a Distributor to supply a service Change to Service Order requirement
Pre-conditions	None Service Order Request has been raised Service Order Request has been raised
Post-conditions	Distributor has logged the Service Order and created Work Request Distributor has logged cancellation request
Transaction acknowledgment specific event codes	3601, 3604, 3608, 3613, 3616-3619, 3644, 3675

The ServiceOrderRequest transaction requests the provision of a service by a Distributor. It is also used to cancel an existing Service Order via an "actionType" attribute within the transaction element.

Note: where a ServiceOrderRequest transaction is provided to a Distributor, the ~~Disitrbutor~~Distributor will use the CustomerCharacterisation field to provide the initial customer classification as prescribed under the National Energy Retail Law.

Transaction Data Elements

TRANSACTION:	SERVICEORDERREQUEST	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
actionType	M	"New" for New Service Order "Cancel" for Service Order Cancellation Implemented as an attribute of the ServiceOrderRequest aseXML element.
NMI	O	See Spreadsheet Job Enquiry Codes to determine whether this element is required or not.
checksum	O	Required if NMI is populated. Implemented as an attribute of the NMI aseXML element
ServiceOrder/ Address	O	Required if NMI is not populated, otherwise Not Required Implemented in the aseXML "Address" structured format.
JobEnquiryCode	M	Used by Distributor to determine work requirement and priority
ServiceOrderNumber	M	Reference number generated by the Retailer
AccessDetails	O	Optional field that may be populated at CSR discretion
MelwayGridReference	O	Optional field that may be populated at CSR discretion
ContactDetail/ PersonName	O	Should be populated if available. Implemented in the aseXML "PersonName" structured format Not to be retained in any DB system.
ContactDetail/ PhoneNumber	O	Should be populated if available.

TRANSACTION:	SERVICEORDERREQUEST	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
		Implemented in the aseXML "AustralianPhoneNumber" structured format. Not to be retained in any DB system
AppointmentDetail/ Preferred/ Date	M	
AppointmentDetail/ Preferred/ Time	O	Optional field for input of appointment time if applicable
SORDSpecialComments/CommentLine	O	Optional field that may be populated at the CSR discretion
CustomerCharacterisation	O	Required for Service Connection Request (Job Enquiry Code = "SCR")
LoadDetails/PerHour	O	Required for: Service Connection Request (Job Enquiry Code = “SCR”) Basic Meter Fix (Job Enquiry Code = “MFX”) Basic Meter Change (Job Enquiry Code = “MCH”) Service Upgrade (Job Enquiry Code = “USR”) Meter Size Upgrade (Job Enquiry Code = “UMS”) This value must be populated with value of 1 if MeterInletPressure is populated and JobEnquiryCode is set to MRF.
LoadDetails/PerAnnum	O	Required where CustomerCharacterisation is a business customer (eg = “Metropolitan Business” or “Non Metropolitan Business”) (optional where CustomerCharacterisation is a residential customer); Service Connection Request (Job Enquiry Code = “SCR”)

TRANSACTION:	SERVICEORDERREQUEST	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
		Basic Meter Fix (Job Enquiry Code = “MFX”) Optional for: Basic Meter Change (Job Enquiry Code = “MCH”) Service Upgrade (Job Enquiry Code = “USR”) Meter Size Upgrade (Job Enquiry Code = “UMS”) Otherwise Not Required
MeterInletPressure	O	Required for: Meter Fix (Job Enquiry Code = “MFX”) Meter Size Upgrade (Job Enquiry Code = “UMS” Optional for: Service Upgrade (Job Enquiry Code = “USR”) Meter Refix (Job Enquiry Code = "MRF") Service Connection Request = "SCR") Default to "1.1". If this element is populated to JobEnquiryCode of MRF then LoadDetails/PerHour must also be populated with value of 1.
COCNumber	O	Required forVIC standard (“A” type) Meter Fix.
PlumberLicenceNumber	O	Required forVIC standard (“A” type) Meter Fix
StartWorkNoticeNumber	O	Required for all NSW Meter Fix and Victorian Complex (“B” type) Meter Fix.
DateTimeCSRAccessedCustomerRecord	M	
DateTimeCSRProcessedTransaction	M	

The transaction is implemented as the ServiceOrderRequest transaction in aseXML utilising the xsi:type="ase:GasServiceOrderType" construct for the ServiceOrderType element and xsi:type="ase:GasServiceOrderDetails" construct for the RequestData element.

The ServiceOrderRequest transaction is in the following format:

FIGURE 4-33 SERVICEORDERREQUEST ASEXML SCHEMA

The GasServiceOrderType type construct is in the following format:

FIGURE 4-34 GASSERVICEORDERTYPE TYPE ASEXML SCHEMA

The GasServiceOrderDetails type construct is in the following format:

XML Samples


```
<Header>
    <From description="TXU Retail">TXUR</From>
    <To description="TXU Networks">TXUN</To>
    <MessageID>TXUR-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>SORD</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUR-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
        <ServiceOrderRequest version="r9" actionType="New">
            <ServiceOrder>
                <NMI checksum="3">2837465436</NMI>
                <ServiceOrderType xsi:type="ase:GasServiceOrderType">
                    <JobEnquiryCode>MFXA</JobEnquiryCode>
                </ServiceOrderType>
                <ServiceOrderNumber>TXR-756453</ServiceOrderNumber>
            </ServiceOrder>
            <ServicePoint>
                <AccessDetails>Details</AccessDetails>
                <MelwayGridReference>23 A12</MelwayGridReference>
            </ServicePoint>
            <ContactDetail>
                <PersonName>
                    <NameTitle>MR</NameTitle>
                    <GivenName>Fred</GivenName>
                    <FamilyName>Bloggs</FamilyName>
                </PersonName>
                <PhoneNumber serviceType="Fixed Voice">
                    <Prefix>03</Prefix>
                    <Number>98653546</Number>
                </PhoneNumber>
            </ContactDetail>
            <AppointmentDetail>
                <Preferred>
                    <Date>2002-01-01</Date>
                </Preferred>
            </AppointmentDetail>
            <RequestData xsi:type="ase:GasServiceOrderDetails" version="r9">
                <SpecialInstructions>
                    <CommentLine>Special instructions</CommentLine>
                </SpecialInstructions>
                <ServiceDetails>
                    <LoadDetails>
                        <PerHour>234</PerHour>
                    </LoadDetails>
                    <MeterInletPressure>1.1</MeterInletPressure>
                    <MeterFix>
                        <Certification>
                            <SimpleMeter>
                                <COCNumber>COC123</COCNumber>
                                <PlumberLicenceNumber>PL2345</PlumberLicenceNumber>
```

```
                    </SimpleMeter>
                </Certification>
            </MeterFix>
        </ServiceDetails>
        <DateTimeCSRAccessedRecord>2002-01-01T12:00:00+10:00</DateTimeCSRAccessedRecord>
        <DateTimeCSRProcessedTransaction>2002-01-
01T12:01:00+10:00</DateTimeCSRProcessedTransaction>
    </RequestData>
  </ServiceOrderRequest>
 </Transaction>
</Transactions>
```


The following are several examples of structured address usage. Below is a simple address:


```
<Address>
    <AustralianAddress>
        <StructuredAddress>
            <House>
                <HouseNumber>11</HouseNumber>
            </House>
            <Street>
                <StreetName>WHY</StreetName>
                <StreetType>CRSS</StreetType>
            </Street>
        </StructuredAddress>
        <SuburbOrPlaceOrLocality>CHICKEN CROSS ROAD</SuburbOrPlaceOrLocality>
        <StateOrTerritory>VIC</StateOrTerritory>
        <PostCode>3333</PostCode>
    </AustralianAddress>
</Address>
```

Here is an example of usage of a structured address with apartment, floor, building name and lot.

```
<Address>
    <AustralianAddress>
        <StructuredAddress>
            <FlatOrUnit>
                <FlatOrUnitType>APT</FlatOrUnitType>
                <FlatOrUnitNumber>5</FlatOrUnitNumber>
            </FlatOrUnit>
            <FloorOrLevel>
                <FloorOrLevelType>G</FloorOrLevelType>
            </FloorOrLevel>
            <BuildingOrPropertyName>BUILDING A</BuildingOrPropertyName>
            <Street>
                <StreetName>WALNUT</StreetName>
                <StreetType>RIDE</StreetType>
            </Street>
        </StructuredAddress>
        <SuburbOrPlaceOrLocality>SUNSHINE</SuburbOrPlaceOrLocality>
        <StateOrTerritory>VIC</StateOrTerritory>
        <PostCode>3333</PostCode>
    </AustralianAddress>
</Address>
```

The following is a sample of an aseXML structured address using a location descriptor:

```
<Address>
    <AustralianAddress>
        <StructuredAddress>
            <LocationDescriptor>CORNER</LocationDescriptor>
            <Street>
                <StreetName>FIRST</StreetName>
                <StreetType>ST</StreetType>
            </Street>
            <Street>
                <StreetName>SECOND</StreetName>
                <StreetType>AVE</StreetType>
                <StreetSuffix>SW</StreetSuffix>
            </Street>
        </StructuredAddress>
        <SuburbOrPlaceOrLocality>BRIGHTON</SuburbOrPlaceOrLocality>
        <StateOrTerritory>VIC</StateOrTerritory>
        <PostCode>3333</PostCode>
    </AustralianAddress>
```

```
</Address>
```

4.2.2.2 ServiceOrderResponse

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: 87A – METER FIX REQUEST "SIMPLE" OR "COMPLEX" TYPE RESPONSE 92 – METER FIX COMPLETE 93 – NO ACCESS TO COMPLETE METER FIX 101A – METER CHANGE REQUEST RESPONSE 104 – NO ACCESS TO COMPLETE METER CHANGE 108 – METER CHANGE COMPLETED 125 – METER UPGRADE COMPLETED 151A – METER REMOVAL REQUEST RESPONSE 154 – NO ACCESS TO COMPLETE METER REMOVAL 157 – METER REMOVAL COMPLETE 310A – SERVICE CONNECTION REQUEST RESPONSE 311 - SERVICE CONNECTION COMPLETE 312A – SERVICE DISCONNECTION REQUEST RESPONSE 313 - SERVICE DISCONNECTION COMPLETE 314A – SERVICE ORDERS FOR PRIORITY C– K RESPONSE 315 - SERVICE ORDERS COMPLETED FOR PRIORITY A -K 316A – RELOCATE SERVICE CONNECTION REQUEST RESPONSE 317 - RELOCATE SERVICE COMPLETE 318A – UPGRADE SERVICE SIZE REQUEST RESPONSE 319 - UPGRADE SERVICE SIZE COMPLETE 320A – UPGRADE METER SIZE REQUEST RESPONSE 321 - UPGRADE METER SIZE COMPLETE
Trigger	Work Request Number generated Service Order Completed, Cancelled, or Attempted with No Access
Pre-conditions	Distributor has logged Service Order Request and generated Work Request Number Distributor has closed Work Request
Post-conditions	Retailer has logged Work Request Number Retailer has closed Service Order
Transaction acknowledgment specific event codes	3602(not applicable for DB initiated Service Orders), 3609, 3610, 3622, 3624-3637

The ServiceOrderResponse transaction is used during a Service Order initiation to supply the requestor with the recipients Work Request Number. Once the Service Order is satisfied,

attempted with no access, or cancelled by the Retailer the transaction is used to provide closure to the process.

Transaction Data Elements

TRANSACTION:	SERVICEORDERRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
responseType	M	"Initial" for initial response "Closure" when Service Order is closed Implemented as an attribute of the ServiceOrderResponse aseXML element.
NMI	O	Required when supplied by the Retailer in the Service Order Request. Required on completion of a Meter Fix (Job Enquiry Code = "MFX") regardless of whether provided in the Service Order Request or not. Required when the Service Order work affected a specific NMI regardless of whether provided in the Service Order Request or whether the Service Order was initiatied by the Distributor. Optional for Service Connection (Job Enquiry Code = "SCR") Otherwise not required.
checksum	O	Required if NMI is populated. Implemented as an attribute of the NMI aseXML element
Address	O	Required if NMI not populated. Implemented in the aseXML "Address" structured format
JobEnquiryCode	M	Used by Distributor to determine work requirement and priority
ServiceOrderNumber	O	Retailer's RB Reference Number Required when Service Order was initiated by a Retailer
ServiceProviderReference	M	Distributor's Work Request Number

TRANSACTION:	SERVICEORDERRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
AppointmentDetail/ Preferred/ Date	O	Required for Initial response for Service Connection Request (Job Enquiry Code = SCR) and No Access response to all Service Order Requests.
AppointmentDetail/ Preferred/ Time	O	Required for No Access response if supplied in request transaction
DateServiceOrderCompleted	O	Required if Service Order completed
TimeServiceOrderCompleted	O	Optional if Service Order completed
Removed/ MeterSerialNumber	O	Required whenever a meter is removed as part of the Service Order completion
Removed/ MeterRead/ Current/ IndexValue	O	Required whenever a meter is removed as part of the Service Order completion. If supplied will result in the provision of energy data for this MIRN via a MeterDataNotification transaction.
New/ MeterSerialNumber	O	Required whenever a new meter is fitted as part of the Service Order completion
New/ PressureCorrectionFactor	O	Required whenever a new meter is fitted as part of the Service Order completion
New/ MeterTypeSizeCode	O	Required whenever a new meter is fitted as part of the Service Order completion
New/ MeterRead/ Current/ IndexValue	O	Required whenever a new meter is fitted as part of the Service Order completion. If supplied will result in the provision of energy data for this MIRN via a MeterDataNotification transaction.
New/ BasicMeter/ NextScheduledReadDate	O	Required for Meter Fix (Job Enquiry Code = “MFX”)
New/ BasicMeter/ ScheduledReadingDayNumber	O	Required for Meter Fix (Job Enquiry Code = “MFX”)

TRANSACTION:	SERVICEORDERRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
Current/ MeterRead/ Current/ IndexValue	O	Required whenever a validated meter read is taken as part of the Service Order completion. If supplied will result in the provision of energy data for this MIRN via a MeterDataNotification transaction.
DateOfAttemptedAccess	O	Required for No Access response
JobCompletionCode1	O	Required if Service Order completed or attempted with No Access
JobCompletionCode2	O	Required if Service Order completed or attempted with No Access
JobCompletionCode3	O	Required whenever a meter is removed as part of the Service Order completion Optional for other Service Order completions
NotificationData/SpecialNotes/ CommentLine	O	Required if Service Order is attempted but not successfully completed, including when cancelled by the DB For the avoidance of doubt, not required for retailer initiated B2B cancellation transaction unless: Retailer Cancel SO was rejected by the DB but later cancelled in the field SO cancellation was verbally communicated by the Retailer. Up to 3 comment lines can be provided (80 characters each) Note: Participants will refer to this field as SORDNotCompleteComment/CommentLine
Event	O	May be repeated any number of times.

TRANSACTION:	SERVICEORDERRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
		The Event element will identify any errors occurring in the processing of the request record.

The transaction is implemented as the ServiceOrderResponse transaction in aseXML utilising the xsi:type="ase:GasServiceOrderType" construct for the ServiceOrderType element and xsi:type="ase:GasServiceOrderNotificationData" construct for the NotificationData element.

The ServiceOrderResponse transaction is in the following format:

FIGURE 4-36 SERVICEORDERRESPONSE ASEXML SCHEMA

See section 4.2.2.1 for the format of the GasServiceOrderType type construct.

The GasServiceOrderNotificationData type construct is in the following format:

The MeterData/New, MeterData/Removed and MeterData/Current elements are each in the following format:

FIGURE 4-38 GASMETERSTANDINGDATA ASEXML SCHEMA

XML Sample

Initial Notification


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>SORD</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00"
initiatingTransactionID="TXUR-TXN-463547">
        <ServiceOrderResponse version="r9" responseType="Initial">
            <ServiceOrder>
                <NMI checksum="3">2837465436</NMI>
                <ServiceOrderType xsi:type="ase:ServiceOrderTypeGas">
                    <JobEnquiryCode>MFXA</JobEnquiryCode>
                </ServiceOrderType>
                <ServiceOrderNumber>TXR-756453</ServiceOrderNumber>
                <ServiceProviderReference>WR-7564537</ServiceProviderReference>
            </ServiceOrder>
        </ServiceOrderResponse>
    </Transaction>
</Transactions>
```

Completion Notification


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>SORD</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00"
initiatingTransactionID="TXUR-TXN-463547">
        <ServiceOrderResponse version="r9" responseType="Closure">
            <ServiceOrder>
                <NMI checksum="3">2837465436</NMI>
                <ServiceOrderType xsi:type="ase:GasServiceOrderType">
                    <JobEnquiryCode>MFXA</JobEnquiryCode>
                </ServiceOrderType>
                <ServiceOrderNumber>TXR-756453</ServiceOrderNumber>
                <ServiceProviderReference>WR-7564537</ServiceProviderReference>
            </ServiceOrder>
            <NotificationData xsi:type="ase:GasServiceOrderNotificationData" version="r9">
                <ServiceOrderCompletion>
                    <DateServiceOrderCompleted>2002-01-01</DateServiceOrderCompleted>
                    <MeterData>
                        <New>
                            <MeterSerialNumber>M1234</MeterSerialNumber>
                            <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
                            <MeterTypeSizeCode>A1</MeterTypeSizeCode>
                            <MeterRead>
                                <Current>
                                    <IndexValue>0</IndexValue>
                                </Current>
                            </MeterRead>
                            <BasicMeter>
                                <NextScheduledReadDate>2002-03-01</NextScheduledReadDate>
                                <ScheduledReadingDayNumber>4</ScheduledReadingDayNumber>
                            </BasicMeter>
                        </New>
                    </MeterData>
                </ServiceOrderCompletion>
                <JobCompletionCodes>
                    <JobCompletionCode1>10</JobCompletionCode1>
                    <JobCompletionCode2>12</JobCompletionCode2>
                </JobCompletionCodes>
            </NotificationData>
        </ServiceOrderResponse>
        </ServiceOrderResponse>
    </Transaction>
</Transactions>
```

4.2.3 Not Implemented (This section was previously Time Expired Meters)

4.2.4 Not Implemented (This section was previously Mains/Service Renewal)

4.3 MIRN Discovery

4.3.1 Overview

The Meter Installation Registration Number or MIRN is the term used to describe a unique gas metering point. The MIRN Discovery transaction group is used to return MIRN Standing Data information given the address of a MIRN, or the MIRN itself. The transaction is conducted between Retailers and Distributors.

The following table shows the MIRN Discovery group of aseXML transactions and the corresponding transactions from the Table of Transactions.

ASEXML TRANSACTION	TABLE OF TRANSACTIONS	
Transaction Name	**Ref No**	**Transaction Type**
NMIDiscoveryRequest	280	Discovery Request (Address supplied)
NMIDiscoveryResponse	281	MIRN Standing Data
	284	MIRN Additional Data
NMIStandingDataRequest	280	Discovery Request (MIRN supplied)
NMIStandingDataResponse	281	MIRN Standing Data
	284	MIRN Additional Data

These business transactions will be mapped to the NMI Discovery (NMID) Transaction Group in aseXML. A NMI (National Metering Identifier) is Electricity terminology, for which the Gas equivalent is MIRN. As Gas and Electricity are harmonising their use of aseXML, the terms NMI and MIRN are used interchangeably in this document.

The transactions have been grouped into the following for definition:

- Provision of MIRN Data

These are defined below.

4.3.2 Provision of MIRN Data

MIRN data is transferred from a Distributor to a Retailer following a Retailers request. The requests that the Retailer issues are dependent upon whether they are requesting by MIRN, or by the address of the MIRN.

4.3.2.1 MIRN Discovery (Provision of MIRN Data from Address Search)

FIGURE 4-39 MIRN DISCOVERY ACTIVITY DIAGRAM

Process Sequence

A Retailer issues a NMIDiscoveryRequest transaction when that Retailer needs to determine the MIRN and obtain the MIRN Standing Data for a supplied address.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-40 MIRN DISCOVERY REQUEST SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	NMIDiscoveryRequest	Retailer	FRC Hub	12.3 -> 12.15
2	NMIDiscoveryRequest	FRC Hub	Distributor	

The Distributor will attempt to obtain the MIRN Standing Data relevant to the supplied address.

The supplied address must match one address and one address only in the Distributors database for the MIRN Standing data to be returned in the MIRN Discovery response.

If no address is found to match, an error is sent in the MIRN Discovery response. If more than one matching address is found, an error indicating that the Retailer needs to refine their search address is sent in the MIRN Discovery Response.[1]

Not all MIRN Standing Data may be available regarding additional charges applicable to the MIRN within the required turnaround time for the transaction. In this case, two MIRN Discovery Responses will be issued, the initial response containing an indicator to the Retailer that more data is to follow. The second response follows when the additional data becomes available.

After a Distributor has processed the request a NMIDiscoveryResponse transaction is returned to the Retailer to provide the required data. A second NMIDiscoveryResponse transaction will be provided if additional MIRN data must be supplied.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-41 MIRN DISCOVERY RESPONSE SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	NMIDiscoveryResponse	Distributor	FRC Hub	12.6 -> 12.8
2	NMIDiscoveryResponse	FRC Hub	Retailer	
3	NMIDiscoveryResponse	Distributor	FRC Hub	12.7 -> 12.8
4	NMIDiscoveryResponse	FRC Hub	Retailer	

[1] Currently under discussion by GTPWG. This will be clarified or corrected when a decision has been made.

The event record in the response transaction will indicate if an error was detected. The possible scenarios are:

- Successful – a single MIRN was found that matched the supplied address.
- Partially successful – more than one MIRN was found that matched the supplied address.
- Failure – no MIRN was found to match the supplied address, or there was an error retrieving the Standing Data for the MIRN.

4.3.2.2 NMIDiscoveryRequest

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 280 – DISCOVERY REQUEST NOTE. THIS TRANSACTION IS ONLY USED WHEN AN ADDRESS IS USED AS THE INPUT. THE NMISTANDINGDATAREQUEST TRANSACTION ALSO REALISES THIS TRANSACTION WHEN THE INPUT IS A MIRN.
Trigger	This interface is triggered when a Retailer requests MIRN Standing Data for a MIRN that they know only by address.
Pre-conditions	Retailer has an Explicit Informed Consent from the subject customer in respect of the distribution supply point at the address.
Post-conditions	Distributor has logged the Discovery Request
Transaction acknowledgment specific event codes	3606, 3608, 3638, 3639, 3660

The NMIDiscoveryRequest transaction is used by the Retailer to request a MIRN and MIRN Standing Data from the Distributor.

Transaction Data Elements

TRANSACTION:	NMIDISCOVERYREQUEST	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
JurisdictionCode	M	Literal "VGI" Not currently used by the Gas Industry. Required in this transaction for convergence with current aseXML schema
Address	M	Contains search data in aseXML "AustralianAddressSearch" structured format.

The transaction is implemented as the existing NMIDiscoveryRequest transaction in aseXML. Due to harmonisation with Electricity aseXML, additional fields in the schema appear in the below diagram, however for Gas the only valid search field is Address. The transaction is in the following format:

Figure 4-42 NMIDiscoveryRequest aseXML schema

XML SAMPLE


```
<Header>
    <From>PULSE</From>
    <To>UED</To>
    <MessageID>PULSE-MSG-3645237</MessageID>
    <MessageDate>2001-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>NMID</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="PULSE-TSN-27365453" transactionDate="2001-01-01-T12:00:00+10:00">
        <NMIDiscoveryRequest version="r4">
            <JurisdictionCode>VGI</JurisdictionCode>
            <Address>
                <StructuredAddress>
                    <House>
                        <HouseNumber>25</HouseNumber>
                    </House>
                    <Street>
                        <StreetName>Moray</StreetName>
                        <StreetType>ST</StreetType>
                    </Street>
                </StructuredAddress>
                <SuburbOrPlaceOrLocality>Kew</SuburbOrPlaceOrLocality>
                <StateOrTerritory>VIC</StateOrTerritory>
                <PostCode>3101</PostCode>
            </Address>
        </NMIDiscoveryRequest>
    </Transaction>
</Transactions>
```

4.3.2.3 NMIDiscoveryResponse

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 281 – MIRN STANDING DATA • 284 – MIRN ADDITIONAL DATA NOTE. THE NMISTANDINGDATARESPONSE TRANSACTION ALSO REALISES THESE TRANSACTIONS WHEN THE REQUEST IS A NMISTANDINGDATAREQUEST TRANSACTION.
Trigger	Completion of processing of the NMIDiscoveryRequest transaction.
Pre-conditions	None
Post-conditions	Retailer has the MIRN Standing Data, or a record of failure of processing of the NMIDiscoveryRequest data and all errors detected.
Transaction acknowledgment specific event codes	3602, 3680, 3639

The NMIDiscoveryResponse transaction provides the MIRN Standing Data to the requestor or advises of the failure of the processing of the issued NMIDiscoveryRequest transaction. It also identifies whether any additional NMI Standing Data will be issued at a later time to the Retailer in a subsequent NMIDiscoveryResponse.

Transaction Data Elements

TRANSACTION:	NMIDISCOVERYRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
NMI	M	
Checksum	M	Implemented as an attribute of the NMI aseXML element
DistributionTariff	O	Required if meter is attached and a single match is found.Not Required if multiple match is found.
TransmissionZone	O	Mandatory if a single match is found Not Required if multiple match is found.
HeatingValueZone	O	Mandatory if a single match is found

TRANSACTION:	NMIDISCOVERYRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
CustomerCharacterisation	O	Required if Basic Meter is attached and a single match is found.. Not Required if multiple match is found.
CustomerClassificationCode	O	Mandatory in Victoria and Queensland
ConsumptionThresholdCode	O	Not required where CustomerClassificationCode is “RES”.
MIRNStatus	O	Mandatory if a single match is foundNot Required if multiple match is found.
MeterSerialNumber	O	Required if meter is attached.
PressureCorrectionFactor	O	Required if meter is attached and a single match is found Not Required if multiple match is found.
MeterStatus	O	If MeterStatus is set to “No Meter”, then no meter is attached to the MIRN. Not Required if multiple match is found.
SupplyPointCode	O	Required if meter is attached and a single match is found. Not Required if multiple match is found.
Current/ ReadDate	O	Required if Basic Meter is attached and a single match is found. Not Required if multiple match is found.
NextScheduledReadDate	O	Required if Basic Meter is attached and a single match is found. Not Required if multiple match is found.
MeterReadFrequency	O	Required if Basic Meter is attached and a single match is found. Not Required if multiple match is found.
NextScheduledSpecialRead/ Preferred/ Date	O	Required if Basic Meter is attached and if there is a Special Read appointment booked against this MIRN and a single match is found.

TRANSACTION:	NMIDISCOVERYRESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
CommunicationEquipmentPresent	O	Required if Interval Meter is attached and a single match is found. Not Required if multiple match is found.
ExcludedServicesCharges/ ChargeItem/ Category	O	Only used for Interval meters and a single match is found. Not Required if multiple match is found. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to “true”.
ExcludedServicesCharges/ ChargeItem/ Amount	O	Only used for Interval meters and a single match is found. Not Required if multiple match is found. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to “true”.
ExcludedServicesCharges/ ChargeItem/ ExpiryDate	O	Only used for Interval meters and a single match is found. Not Required if multiple match is found. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to “true”.
Address	M	In aseXML structured format
AdditionalDataToFollow	M	Required if Interval Meter is attached and a single match is found. Not Required if multiple match is found.
Event	M	Set to '0' if no errors or events to report. May be repeated any number of times.

The transaction is implemented as the NMIDiscoveryResponse transaction in aseXML utilising the xsi:type="ase:GasStandingData" construct for the NMIStandingData element.

The NMIDiscoveryResponse transaction is in the following format:

FIGURE 4-43 NMIDISCOVERYRESPONSE ASEXML SCHEMA

The GasStandingData type construct (high level) is in the following format:

FIGURE 4-44 GASSTANDINGDATA TYPE (HIGH LEVEL) ASEXML SCHEMA

FIGURE 4-45 GASMASTERSTANDINGDATA ASEXML SCHEMA

The GasMeterStandingData element schema is defined below:

FIGURE 4-46 GASMETERSTANDINGDATA ASEXML SCHEMA

The SiteData element schema is defined below:

FIGURE 4-47 SERVICEPOINT ASEXML SCHEMA

XML Sample

Basic Meter Response


```
<?xml version="1.0" encoding="UTF-8"?>
<ase:aseXML xmlns:ase="urn:aseXML:r29" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r14 http://www.nemmco.com.au/aseXML/schemas/r14/aseXML_r14.xsd">
    <Header>
        <From description="TXU Networks">TXUN</From>
        <To description="TXU Retail">TXUR</To>
        <MessageID>TXUN-MSG-4321</MessageID>
        <MessageDate>2002-02-14T12:00:00+10:00</MessageDate>
        <TransactionGroup>NMID</TransactionGroup>
        <Market>VICGAS</Market>
    </Header>
    <Transactions>
        <Transaction transactionID="TXUN-TXN-4321" transactionDate="2002-02-14T12:00:00+10:00"
initiatingTransactionID="TXUR-TXN-1234">
            <NMIStandingDataResponse version="r4">
                <NMIStandingData xsi:type="ase:GasStandingData" version="r29">
                    <NMI checksum="3">1234567890</NMI>
                    <MasterData>
                        <DistributionTariff>Demand</DistributionTariff>
                        <TransmissionZone>09</TransmissionZone>
                        <HeatingValueZone>03</HeatingValueZone>
                        <CustomerCharacterisation>Metropolitan Business</CustomerCharacterisation>
                        <CustomerClassificationCode>BUS</CustomerClassificationCode>
                        <CustomerThresholdCode>LOW</CustomerThresholdCode>
                        <MIRNStatus>Commissioned</MIRNStatus>
                    </MasterData>
                    <MeterData>
                        <MeterSerialNumber>M1234</MeterSerialNumber>
                        <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
                        <MeterStatus>Turned on</MeterStatus>
                        <SupplyPointCode>Interval</SupplyPointCode>
                        <IntervalMeter>
                            <CommunicationEquipmentPresent>true</CommunicationEquipmentPresen
t>
                            <ExcludedServicesCharges>
                                <ChargeItem>
                                    <Category>Service</Category>
                                    <Amount>3.55</Amount>
                                    <ExpiryDate>2002-06-01</ExpiryDate>
                                </ChargeItem>
                            </ExcludedServicesCharges>
                        </IntervalMeter>
                    </MeterData>
                    <SiteData>
                        <Address>
```

```
                    <AustralianAddress>
                        <StructuredAddress>
                            <House>
                                <HouseNumber>25</HouseNumber>
                            </House>
                            <Street>
                                <StreetName>Moray</StreetName>
                                <StreetType>ST</StreetType>
                            </Street>
                        </StructuredAddress>
                        <SuburbOrPlaceOrLocality>Kew</SuburbOrPlaceOrLocality>
                        <StateOrTerritory>VIC</StateOrTerritory>
                        <PostCode>3101</PostCode>
                    </AustralianAddress>
                </Address>
            </SiteData>
            <AdditionalDataToFollow>false</AdditionalDataToFollow>
        </NMIStandingData>
        <Event>
            <Code>0</Code>
        </Event>
    </NMIStandingDataResponse>
</Transaction>
</Transactions>
</ase:aseXML>
```

Interval Meter Initial Response


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-4321</MessageID>
    <MessageDate>2002-02-14T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-4321" transactionDate="2002-02-14T12:00:00+10:00"
initiatingTransactionID="TXUR-TXN-1234">
        <NMIDiscoveryResponse version="r9">
            <NMIStandingData xsi:type="ase:GasStandingData" version="r9">
                <NMI checksum="3">1234567890</NMI>
                <MasterData>
                    <DistributionTariff>Demand</DistributionTariff>
                    <TransmissionZone>09</TransmissionZone>
                    <HeatingValueZone>03</HeatingValueZone>
                    <MIRNStatus>Commissioned</MIRNStatus>
                </MasterData>
                <MeterData>
                    <MeterSerialNumber>M1234</MeterSerialNumber>
                    <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
                    <MeterStatus>Turned on</MeterStatus>
                    <SupplyPointCode>Interval</SupplyPointCode>
                    <IntervalMeter>
                        <CommunicationEquipmentPresent>true</CommunicationEquipmentPresent>
                    </IntervalMeter>
                </MeterData>
                <SiteData>
                    <Address>
                        <AustralianAddress>
                            <StructuredAddress>
                                <House>
                                    <HouseNumber>25</HouseNumber>
                                </House>
                                <Street>
                                    <StreetName>Moray</StreetName>
                                    <StreetType>ST</StreetType>
                                </Street>
                            </StructuredAddress>
                            <SuburbOrPlaceOrLocality>Kew</SuburbOrPlaceOrLocality>
                            <StateOrTerritory>VIC</StateOrTerritory>
                            <PostCode>3101</PostCode>
                        </AustralianAddress>
                    </Address>
                </SiteData>
                <AdditionalDataToFollow>true</AdditionalDataToFollow>
            </NMIStandingData>
            <Event>
                <Code>0</Code>
            </Event>
        </NMIDiscoveryResponse>
    </Transaction>
```

```
</Transactions>
```

Interval Meter Additional Data Response


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-4321</MessageID>
    <MessageDate>2002-02-14T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-4321" transactionDate="2002-02-14T12:00:00+10:00"
initiatingTransactionID="TXUR-TXN-1234">
        <NMIDiscoveryResponse version="r9">
            <NMIStandingData xsi:type="ase:GasStandingData" version="r9">
                <NMI checksum="3">1234567890</NMI>
                <MasterData>
                    <DistributionTariff>Demand</DistributionTariff>
                    <TransmissionZone>09</TransmissionZone>
                    <HeatingValueZone>03</HeatingValueZone>
                    <MIRNStatus>Commissioned</MIRNStatus>
                </MasterData>
                <MeterData>
                    <MeterSerialNumber>M1234</MeterSerialNumber>
                    <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
                    <MeterStatus>Turned on</MeterStatus>
                    <SupplyPointCode>Interval</SupplyPointCode>
                    <IntervalMeter>
                        <CommunicationEquipmentPresent>true</CommunicationEquipmentPresent>
                        <ExcludedServicesCharges>
                            <ChargeItem>
                                <Category>Service</Category>
                                <Amount>3.55</Amount>
                                <ExpiryDate>2002-06-01</ExpiryDate>
                            </ChargeItem>
                        </ExcludedServicesCharges>
                    </IntervalMeter>
                </MeterData>
                <SiteData>
                    <Address>
                        <AustralianAddress>
                            <StructuredAddress>
                                <House>
                                    <HouseNumber>25</HouseNumber>
                                </House>
                                <Street>
                                    <StreetName>Moray</StreetName>
                                    <StreetType>ST</StreetType>
                                </Street>
                            </StructuredAddress>
                            <SuburbOrPlaceOrLocality>Kew</SuburbOrPlaceOrLocality>
                            <StateOrTerritory>VIC</StateOrTerritory>
                            <PostCode>3101</PostCode>
                        </AustralianAddress>
                    </Address>
                </SiteData>
```

```
                <AdditionalDataToFollow>false</AdditionalDataToFollow>
            </NMIStandingData>
            <Event>
                <Code>0</Code>
            </Event>
        </NMIDiscoveryResponse>
    </Transaction>
</Transactions>
```


The following matching processing rules apply to a NMIDiscoveryResponse.

1. **Mandatory fields in a NMIDiscoveryRequest transaction:**

The following fields are mandatory input values for a MIRN Discovery Request

JurisdictionCode

StreetName1

StreetType1 (see note below)

SuburbOrPlaceOrLocality

And one of

HouseNumber1, LotNumber, BuildingOrPropertyName1

The following field is a mandatory matching criterion. It must be supplied as input or else a null match is required:

Note: The StreetType1 field is normally a mandatory matching criteria and must be included whenever the Retailer has a valid street type value. In a situation where there is no Street Type (e.g The Avenue, The Ponds, The Esplanade) the Street Type field must not be included in the aseXML transaction.

For the avoidance of doubt where an address is for example “1 The Ponds Parkdale 3166” and no street type, then a MIRNDiscovery will have the following input values for an exact match:


```
<AustralianAddress>
    <StructuredAddress>
        <House>
            <HouseNumber>1</HouseNumber>
        </House>
        <Street>
            <StreetName>The Ponds</StreetName>
        </Street>
    </StructuredAddress>
    <SuburbOrPlaceOrLocality>Parkdale</SuburbOrPlaceOrLocality>
    <StateOrTerritory>VIC</StateOrTerritory>
    <PostCode>3166</PostCode>
</AustralianAddress>
```

2. Non Mandatory Search fields in a NMIDiscoveryRequest transaction

The following fields if provided will be used by the Distributor as match criteria:

FlatOrUnitNumber

FloorOrLevelNumber

HouseNumberSuffix1

StreetSuffix1

And further one or two of

HouseNumber1, LotNumber, BuildingOrPropertyName1

3. Non Search fields in a NMIDiscoveryRequest transaction

If any of the remaining fields in the aseXML standard Address element are included in a NMIDiscoveryAddress ie any of the fields not included in (1) or (2), the Distributor will not use these fields as the basis of matching. These fields include

FlatOrUnitType

FloorOrLevelType

PostalDeliveryType

PostalDeliveryNumberPrefix

PostalDeliveryNumberValue

PostalDeliveryNumberSuffix

BuildingOrPropertyName2

LocationDescriptor

HouseNumber2

HouseNumberSuffix2

StreetName2

StreetType2

StreetSuffix2

DeliveryPointIdentifier

StateOrTerritory (already validated by Jurisdiction Code)

Postcode

4. Matching criteria

4.1. If each of the provided fields from (1) and (2) matches the equivalent Distributor fields for one MIRN only the MIRNDiscoveryResponse will be returned with all fields including:

- the MIRN,
- the full address detail available,
- the full meter details (meter serial number, PCF, etc)
- the full MIRN master details as specified in the Participants Build Packs

and the Response Event Element will have an Event Code of '0' for success.

4.2. If each of the provided fields matches the equivalent Distributor fields for 2 to 99 MIRNs the MIRNDiscoveryResponse will be returned and will include for each of the MIRNs only the following details:

- the MIRN,
- the full address detail available,
- the meter serial number

and the Response Event Element will have an Event Code of 3680 "Multiple MIRNs Returned" with type "Error" (rather than '0' so Retailer can exception easily multiple responses).

4.3. If each of the above provided fields matches the equivalent Distributor fields for 100 or more MIRNs the MIRNDiscoveryResponse will be returned with the first* matching 99 records, including for each of the MIRNs only the following details:

- the MIRN,
- the full address detail available,
- the meter serial number

and with Event Code of 3639 "Greater than 99 matches found or second pass response provided" of Type "Error"

* - *First* is defined as the first 99 returns from a Distributor address match search query in no particular sort order.

4.4. If more than one of HouseNumber1 or LotNumber or BuildingOrPropertyName1 fields are provided and the Distributor has a blank in one of the fields then this will not be considered a match and the DB will return the Code of 3606 Not Found. Alternatively a Distribution Business may choose to internally resubmit a search limited to only the mandatory elements, defined in section 4.7 below

4.5. If any of the fields in (2) are provided and the Distributor does not have matching field detail an Event Code of 3606 Not Found will be returned even if there was a match or matches on the mandatory fields. Alternatively a Distribution Business may choose to internally resubmit a search limited to only the mandatory elements, defined in section 4.7 below, where the initial search with non-mandatory elements populated, resulted in a non-match.

4.6. If any of the fields in (2) are provided and the Distributor has a blank in that field then this will not be considered a match. This will apply if more than one of HouseNumber1 or LotNumber or BuildingOrPropertyName1 fields are provided and the Distributor has a blank in one of the fields then this will not be considered a match and return the Code of 3606 Not Found. Alternatively a Distribution Business may choose to internally resubmit a search limited to only the mandatory elements, defined in section 4.7 below ,where the initial search with non-mandatory elements populated, resulted in a non-match.

4.7. Where the Distribution Business is unable to find a match using the data provided in sections 1 & 2 it can, if it so wishes, make one further search using the following mandatory data from section 1 only -:

JurisdictionCode

StreetName1

SuburbOrPlaceOrLocality

And ONE only from

HouseNumber1, LotNumber, BuildingOrPropertyName1

Given at least one of them must be provided in the original request the following logic will determine which one is used -:

If HouseNumber1 is populated drop LotNumber and BuildingOrPropertyName1 from the search.

If HouseNumber1 is not provided and BuildingOrPropertyName1 is populated then drop HouseNumber1 and LotNumber from the search.

If both HouseNumber1 and BuildingOrPropertyName1 are not provided use LotNumber.

To enable the Retailer to identify that data being provided by the Distributor is as a result of a secondary search they will return an event code of 3639 with a severity of ‘error’. In addition the Context field will be populated with the search criteria used by the Distributor and the Explanation field will contain text confirming that the data was returned as a result of a second pass.

4.3.2.4 MIRN Standing Data (Provision of MIRN Data from NMI Search)

FIGURE 4-48 NMI STANDING DATA ACTIVITY DIAGRAM

Process Sequence

A Retailer issues a NMIStandingDataRequest when they have a known MIRN and wish to retrieve the standing data for it.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-49 NMI STANDING DATA REQUEST SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	NMIStandingDataRequest	Retailer	FRC Hub	12.3 -> 12.15
2	NMIStandingDataRequest	FRC Hub	Distributor	

The Distributor will attempt to obtain the MIRN Standing Data relevant to the supplied MIRN.

Not all MIRN Standing Data may be available regarding additional charges applicable to the MIRN within the required turnaround time for the transaction. In this case, two MIRN Standing

Data Responses will be issued, the initial response containing an indicator to the Retailer that more data is to follow. The second response follows when the additional data becomes available.

After a Distributor has processed the request a NMIStandingDataResponse transaction is returned to the Retailer to provide the required data. A second NMIStandingDataResponse transaction will be provided if additional MIRN data must be supplied.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-50 NMI STANDING DATA RESPONSE SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	NMIStandingDataResponse	Distributor	FRC Hub	12.6 -> 12.8
2	NMIStandingDataResponse	FRC Hub	Retailer	
3	NMIStandingDataResponse	Distributor	FRC Hub	12.7 -> 12.8
4	NMIStandingDataResponse	FRC Hub	Retailer	

The event record in the response transaction will indicate if an error was detected. The possible scenarios are:

- Successful – the MIRN was matched and Standing Data retrieved
- Failure – no MIRN was found, or there was an error retrieving the Standing Data for the MIRN.

4.3.2.5 NMIStandingDataRequest

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 280 – DISCOVERY REQUEST NOTE. THIS TRANSACTION IS ONLY USED WHEN A MIRN IS USED AS THE INPUT. THE NMIDISCOVERYREQUEST TRANSACTION ALSO REALISES THIS TRANSACTION WHEN THE INPUT IS AN ADDRESS.
Trigger	This interface is triggered when a Retailer requests MIRN Standing Data for a known MIRN.
Pre-conditions	Retailer has Explicit Informed Consent from the subject customer in respect of the distribution supply point referenced by the MIRN.
Post-conditions	Distributor has logged the Standing Data Request
Transaction acknowledgment specific event codes	3638, 3660

The NMIStandingDataRequest transaction is used by the Retailer to request MIRN Standing Data from a Distributor.

Transaction Data Elements

TRANSACTION:	NMISTANDINGDATAREQUEST	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
NMIWithChecksum	M	
checksum	M	Implemented as an attribute of the NMI aseXML element

The transaction is implemented as the NMIStandingDataRequest transaction in aseXML. The transaction is in the following format:

Figure 4-51 NMIStandingDataRequest aseXML schema

XML Sample

```
<Header>
    <From>PULSE</From>
    <To>UED</To>
    <MessageID>PULSE-MSG-3645237</MessageID>
    <MessageDate>2001-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="PULSE-TSN-27365453" transactionDate="2001-01-01-T12:00:00+10:00">
        <NMIStandingDataRequest version="r4">
            <NMIWithChecksum checksum="3">1234567890</NMIWithChecksum>
        </NMIStandingDataRequest>
    </Transaction>
</Transactions>
```

4.3.2.6 NMIStandingDataResponse

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 281 – MIRN STANDING DATA • 284 – MIRN ADDITIONAL DATA NOTE. THE NMIDISCOVERYRESPONSE TRANSACTION ALSO REALISES THESE TRANSACTIONS WHEN THE REQUEST IS A NMIDISVOVERYREQUEST TRANSACTION.
Trigger	Completion of processing of the NMIStandingDataRequest transaction.
Pre-conditions	None
Post-conditions	Retailer has the MIRN Standing Data, or a record of failure of processing of the NMIStandingDataRequest data and all errors detected.
Transaction acknowledgment specific event codes	3602

The NMIStandingDataResponse transaction provides the MIRN Standing Data to the requestor or advises of the failure of the processing of the issued NMIStandingDataRequest transaction. It also identifies whether any additional NMI Standing Data will be issued at a later time to the Retailer in a subsequent NMIStandingDataResponse.

Transaction Data Elements

TRANSACTION:	NMISTANDINGDATARESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
NMI	M	
Checksum	M	Implemented as an attribute of the NMI aseXML element
DistributionTariff	O	Required if meter is attached
TransmissionZone	M	
HeatingValueZone	M	
CustomerCharacterisation	O	Required if Basic Meter is attached.

TRANSACTION:	NMISTANDINGDATARESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
CustomerClassificationCode	O	Mandatory in Victoria and Queensland, where provided by Retailer
CustomerThresholdCode	O	Not required where CustomerClassficationCode is "RES"
MIRNStatus	M	If "Commissioned" indicates that a meter is attached. If so meter data is to be provided.
MeterSerialNumber	O	Required if meter is attached
PressureCorrectionFactor	O	Required if meter is attached
MeterStatus	O	Required if meter is attached
SupplyPointCode	O	Required if meter is attached
Current/ ReadDate	O	Required if Basic Meter is attached.
NextScheduledReadDate	O	Required if Basic Meter is attached.
MeterReadFrequency	O	Required if Basic Meter is attached.
NextScheduledSpecialRead/ Preferred/ Date	O	Optional if Basic Meter is attached. Populated if there is a Special Read appointment booked against this MIRN.
CommunicationEquipmentPresent	O	Required if Interval Meter is attached.
ExcludedServicesCharges/ ChargeItem/ Category	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true".
ExcludedServicesCharges/ ChargeItem/ Amount	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if

TRANSACTION:	NMISTANDINGDATARESPONSE	
Received From:	Distributor	
Sent To:	Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
		the AdditionalDataToFollow element is set to “true”.
ExcludedServicesCharges/ ChargeItem/ ExpiryDate	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to “true”.
Address	M	
AdditionalDataToFollow	M	
Event	M	Set to '0' if no errors or events to report. May be repeated any number of times.

The transaction is implemented as the NMIStandingDataResponse transaction in aseXML utilising the xsi:type="ase:GasStandingData" construct for the NMIStandingData element.

The NMIStandingDataResponse transaction is in the following format:

FIGURE 4-52 NMISTANDINGDATARESPONSE ASEXML SCHEMA

See figure 4-20 for the format of the GasStandingData type construct

XML Sample

The XML data for a NMIStandingDataResponse is the same as the data for a NMIDiscoveryResponse with the exception of the transaction name. See Figure4-49 for an example of NMIDiscoveryResponse XML data.

4.4 Route and Site Information

4.4.1 Overview

Route and Site Information transactions are initiated by both Retailers and Distributors to maintain alignment of data relating to Customer Sites and the Meter Reading Schedule.

The following table shows the Route and Site Information group of aseXML transactions and the corresponding transactions from the Table of Transactions.

ASEXML TRANSACTION	TABLE OF TRANSACTIONS	
Transaction Name	Ref No	Transaction Type
AmendMeterRouteDetails	66	Meter Site Access Information Change from RB
	67	Meter Site Access Information Change from DB
	68	Supply Point Information
	69	Address Information Change from DB
	75	Meter Reading Route Change

These business transactions will be mapped to the new “SITE” Transaction Group in aseXML.

The transactions have been grouped into the following for definition:

- Site Access Information
- Site Address Information
- Route Change

4.4.2 Site Access Information

Site access information is that information that assists meter readers in the reading process. Changes to this information may come from either the customer – via the Retailer, the Retailer, the meter reading personnel – via the Distributor or the Distributor.

The activity diagram below shows a high level view of this process.

FIGURE 4-53 UPDATE SITE ACCESS INFORMATION ACTIVITY DIAGRAM

Process Sequence

Either a Distributor or a Retailer may become aware of a change to the site data that is maintained by both participants. When either of the participants makes an update to this data an AmendMeterRouteDetails transaction containing an AmendSiteAccessDetails element is generated and forwarded to the other applicable participant.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-54 UPDATE SITE ACCESS INFORMATION SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	AmendMeterRouteDetails/ AmendSiteAccessDetails	Retailer or Distributor	FRC Hub	3.2(b) -> 3.3 or 3.3 -> 3.2(b)
2	AmendMeterRouteDetails/ AmendSiteAccessDetails	FRC Hub	Distributor or Retailer	

4.4.2.1 AmendMeterRouteDetails/AmendSiteAccessDetails

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 66 – METER SITE ACCESS INFORMATION CHANGE FROM RB • 67 – METER SITE ACCESS INFORMATION CHANGE FROM DB
Trigger	This interface is triggered when either a Retailer or Distributor makes a change to a customer's site access data.
Pre-conditions	None
Post-conditions	Receiving participant has recorded the data change.
Transaction acknowledgment specific event codes	3677

The AmendMeterRouteDetails/AmendSiteAccessDetails transaction is used by the Retailer or Distributor to notify the other participant of a change to a customer's site access data.

Transaction Data Elements

TRANSACTION:	AMENDMETERROUTEDETAILS/ AMENDSITEACCESSDETAILS	
Received From:	Retailer or Distributor	
Sent To:	Distributor or Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
NMI	M	
Checksum	M	Implemented as an attribute of the NMI aseXML element
MeterReadFrequency	O	At least one of these elements must be populated
AccessDetails	O	
DogCode	O	
MeterPosition	O	
LastModifiedDateTime	M	May be used by the recipient to ensure that this is the latest data.

The transaction is implemented as the AmendMeterRouteDetails/AmendSiteAccessDetails transaction in aseXML utilising the xsi:type="ase:GasStandingDataUpdate" construct for the AmendSiteAccessDetails element. The amendMeterRouteDetails/AmendSiteAccessDetails transaction is in the following format:

FIGURE 4-55 AMENDMETERROUTEDETAILS/AMENDSITEACCESSDETAILS ASEXML SCHEMA

The GasStandingDataUpdate type construct is in the following format:

FIGURE 4-56 GASSTANDINGDATAUPDATE TYPE ASEXML SCHEMA

XML Sample


```xml
<Header>
    <From description="TXU Retail">TXUR</From>
    <To description="TXU Networks">TXUN</To>
    <MessageID>TXUR-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>SITE</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUR-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
        <AmendMeterRouteDetails version="r9">
            <AmendSiteAccessDetails xsi:type="ase:GasStandingDataUpdate" version="r9">
                <NMI checksum="4">2837465432</NMI>
                <MeterData>
                    <BasicMeter>
                        <MeterReadFrequency>Monthly</MeterReadFrequency>
                    </BasicMeter>
                </MeterData>
                <SiteData>
                    <DogCode>Savage</DogCode>
                </SiteData>
                <LastModifiedDateTime>2001-01-01T12:00:00+10:00</LastModifiedDateTime>
            </AmendSiteAccessDetails>
        </AmendMeterRouteDetails>
    </Transaction>
</Transactions>
```

4.4.3 Site Address Information

Site address information is used mainly to manage and optimise meter reading routes and is used to maintain customer classification information. Changes to this information may come from a customer – via the Retailer, or identified by the Distributor through changes to municipal boundaries, etc.

The activity diagram below shows a high level view of this process.

FIGURE 4-57 UPDATE SITE ADDRESS INFORMATION ACTIVITY DIAGRAM

Process Sequence

Either a Distributor or a Retailer may become aware of a change to the site address data that is maintained by both participants. When either of the participants makes an update to this data an AmendMeterRouteDetails transaction containing a CSVAmendSiteAddressDetails element is generated and forwarded to the other applicable participant. The transaction is also triggered if a retailer makes a change to a customer's characterisation data.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-58 UPDATE SITE ADDRESS INFORMATION SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	AmendMeterRouteDetails/ CSVAmendSiteAddressDetails	Retailer or Distributor	FRC Hub	3.2(a) -> 3.3 or 3.3 -> 3.2(a)
2	AmendMeterRouteDetails/ CSVAmendSiteAddressDetails	FRC Hub	Distributor or Retailer	

4.4.3.1 AmendMeterRouteDetails/CSVAmendSiteAddressDetails

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 68 – SUPPLY POINT INFORMATION • 69 – ADDRESS INFORMATION CHANGE FROM DB
Trigger	This interface is triggered when a Retailer or a Distributor changes a customer's address data or a Retailer makes a change to a customer's characterisation data.
Pre-conditions	None
Post-conditions	Receiving participant has recorded to changed data
Transaction acknowledgment specific event codes	3665, 3666, 3667, 3668, 3670, 3672, 3674, 3677

The AmendMeterRouteDetails/CSVAmendSiteAddressDetails transaction is used by the Retailer or Distributor to notify the other participant of a change to a customer's site address or

customer classification or customer characterisation data. The data is provided in CSV format.

Transaction Data Elements

TRANSACTION:	AMENDMETERROUTEDETAILS/ CSVAMENDSITEADDRESSDETAILS	
Received From:	Retailer (68) or Distributor (69)	
Sent To:	Distributor (68) or Retailer (69)	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
RecordCount	M	Specifies the number of records contained in the populated CSV element
CSVAmendSiteAddressDetails/ CSVData	M	Contains the updated address data in CSV format. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".

CSV Elements

Note:

1. A MIRN that requires an address and a customer classification change must be sent in two transactions. Each record in the CSV must only include **either** a change to the address **or** a change to the customer classification.

2. If Customer Classification but not the address detail for a MIRN is changing, the Retailer should send only a Customer Classification Code change record and not the address change transaction.

3. The address elements in the CSV data align to the format and rules of the address schema in aseXML, which in turn aligns to AS4590. The elements are identified below:

CSVAMENDSITEADDRESSDETAILS/CSVDATA		
Heading	**Mandatory/ Optional**	**Comment**
NMI	M	

CSVAMENDSITEADDRESSDETAILS/CSVDATA		
Heading	**Mandatory/ Optional**	**Comment**
NMI_Checksum	M	
Flat_Or_Unit_Type	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Flat_Or_Unit_Number	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Floor_Or_Level_Type	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Floor_Or_Level_Number	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Building_Or_Property_Name_1	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Building_Or_Property_Name_2	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Location_Description	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
House_Number_1	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
House_Number_Suffix_1	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
House_Number_2	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
House_Number_Suffix_2	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Lot_Number	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard

CSVAMENDSITEADDRESSDETAILS/CSVDATA		
Heading	**Mandatory/ Optional**	**Comment**
Street_Name_1	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Street_Type_1	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Street_Suffix_1	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Street_Name_2	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Street_Type_2	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Street_Suffix_2	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Suburb_Or_Place_Or_Locality	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
State_Or_Territory	M	
Postcode	M	
Delivery_Point_Identifier	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Address_Change_Effective_Date	M	
Customer_Characterisation	O	Required if transaction is initiated by a Retailer.
Customer Classification Code	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Consumption Threshold Code	O	Optional, required where this optional field of the address ic changing. Address Type as per Australian Standard
Last_Modified_Date_Time	M	May be used by the recipient to ensure this is the latest data.

The transaction is implemented as the AmendMeterRouteDetails/CSVAmendSiteAddressDetails transaction in aseXML. The transaction is in the following format:

FIGURE 4-59 AMENDMETERROUTEDETAILS/CSVAMENDSITEADDRESSDETAILS ASEXML SCHEMA

XML Sample

```
<Header>
    <From description="TXU Retail">TXUR</From>
    <To description="TXU Networks">TXUN</To>
    <MessageID>TXUR-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>SITE</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUR-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
        <AmendMeterRouteDetails version="r9">
            <CSVAmendSiteAddressDetails>
                <RecordCount>2</RecordCount>
                <CSVData>
                NMI,NMI_Checksum,State_Or_Territory,Postcode,Address_Change_Effective_Date,...
                2837463523,6,VIC,3913,2002-03-01,...
                8765463456,6,VIC,3913,2002-03-01,...
                </CSVData>
            </CSVAmendSiteAddressDetails>
        </AmendMeterRouteDetails>
    </Transaction>
</Transactions>
```

4.4.4 Not Implemented (This section was previously Route Change)

4.5 Network Billing

4.5.1 Overview

Network Billing transactions are used by Distributors to provide Retailers with the details to support Distribution Use of System (DUoS) invoicing for Basic and Interval Meters.

The following table shows the Network Billing group of aseXML transactions and the corresponding transactions from the Table of Transactions.

ASEXML TRANSACTION	TABLE OF TRANSACTIONS	
Transaction Name	Ref No	Transaction Type
NetworkDUoSBillingNotification	331	Network DUoS Billing Details (Tariff V)
	332	Network DUoS Billing Details (Tariff D)
	334	Network DUoS Billing Details (Tariff H)
	350	Network DUoS Billing Details (Excluded Services)
	351	Network DUoS Billing Details (Dispute Notification)
	352	Network DUoS Billing Details (Dispute Resolution)
	353	Network DUoS Billing Details (Payment Advice)

These business transactions will be mapped to the NETB Transaction Group in aseXML.

These transactions have been grouped together and defined below:

4.5.2 Network DUoS Billing Details

Network DUoS Billing Details are provided to the Retailer from the Distributor to enable DUoS invoicing to be carried out.

The activity diagram below shows a high level view of this process.

FIGURE 4-60 NETWORK DUOS BILLING ACTIVITY DIAGRAM

Process Sequence

In accordance with an agreed schedule a Distributor will collate the applicable Network DUoS Billing details for a Retailer and forward these details in CSV format via a NetworkDUoSBillingNotification transaction.

If a Distrubutor introduces a new rate (eg rate not suitable to Tariff V or D file) then Distributor will collate the applicable Network DUoS Billing details for a Retailer and forward these details in CSV format via a NetworkDUoSBillingNotification transaction. The Tariff H file format (see below) is to be used in this instance.

The Tariff V file will not contain the new rate data and will continued to be prepared and delivered by the Distributor.

If the Retailer does not agree with the individual charges raised, it may dispute these charges at the transaction detail linelevel (including all individual charges contained within the transaction line) and notify the DB of this dispute via a NetworkDUoSBillingNotification transaction carrying dispute details in CSV format.

For charges that are not under dispute, the Retailer will issue a Payment Advice via a NetworkDUoSBillingNotification transaction with details attached in CSV format.

For changes that are under dispute, the Distributor will check their system, resolve the dispute and notify the Retailer of a proposed resolution with a NetworkDUoSBillingNotification

transaction where the details of the resolution are provided in CSV format. It is envisaged that e-mail or phone will be utilised to resolve the billing dispute.

Depending on the way the dispute has been resolved, cancel and re-bill may follow or no changes to billing details will apply. Upon the dispute resolution, the Retailer will issue a Payment Advice via NetworkDUoSBillingNotification transaction with details attached in CSV format.

A key principle for this process is disputes on individual charge(s), do not cause a NACK of the entire NetworkDUoSBillingNotification transaction, and also do not mean the Retailer can withhold payment of the undisputed charges until the disputes are resolved.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-61 NETWORK DUOS BILLING SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	NetworkDUoSBillingNotification	Distributor	FRC Hub	99.2.1 -> 99.2.2
2	NetworkDUoSBillingNotification	FRC Hub	Retailer	

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
3	NetworkDUoSBillingNotification	Retailer	FRC Hub	99.2.3 -> 99.2.4
4	NetworkDUoSBillingNotification	FRC Hub	Distributor	
5	NetworkDUoSBillingNotification	Distributor	FRC Hub	99.2.4 -> 99.2.5
6	NetworkDUoSBillingNotification	FRC Hub	Retailer	
7	NetworkDUoSBillingNotification	Retailer	FRC Hub	99.2.5 -> 99.2.6
8	NetworkDUoSBillingNotification	FRC Hub	Distributor	

4.5.2.1 NetworkDUoSBillingNotification

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 331 – NETWORK DUOS BILLING DETAILS (TARIFF V) • 332 – NETWORK DUOS BILLING DETAILS (TARIFF D) • 334 – NETWORK DUOS BILLING DETAILS (TARIFF H) • 350 - NETWORK DUOS BILLING DETAILS (EXCLUDED SERVICES) • 351 - NETWORK DUOS BILLING DETAILS (DISPUTE NOTIFICATION) • 352 - NETWORK DUOS BILLING DETAILS (DISPUTE RESOLUTION) • 353 - NETWORK DUOS BILLING DETAILS (PAYMENT ADVICE)
Trigger	This interface is triggered as agreed between participants to provide tariff data (331, 332, 334, 350) or by a Retailer disagreed with network billing charges (351, 352, 353).
Pre-conditions	None
Post-conditions	Retailer has recorded the CSV Network DUoS Billing data and resolved any disputes that may have arisen from the billing data.
Transaction acknowledgment specific event codes	3665, 3666, 3670, 3672, 3674

The NetworkDUoSBillingNotification transaction is used by the Distributor to provide Network DUoS Billing data in CSV format to a Retailer and to resolve charges disputes arisen from the billing data.

Transaction Data Elements

TRANSACTION:	NETWORKDUOSBILLINGNOTIFICATION	
Received From:	Distributor (331,332,334, 350,352) or Retailer (351,353)	
Sent To:	Retailer (331,332,334, 350,352) or Distributor (351,353)	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
RecordCount	M	Specifies the number of records contained in the populated CSV element
CSVNetworkDUoSDataTariffV/ CSVData	O	Contains the Tariff V Network DUoS data in CSV format. See usage notes below this table. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".
CSVNetworkDUoSDataTariffD/ CSVData	O	Contains the Tariff D Network DUoS data in CSV format. See usage notes below this table. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".
CSVNetworkDUoSDataTariffH/ CSVData	O	Contains the Tariff H Network DUoS data in CSV format. See usage notes below this table. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".
CSVNetworkDUoSDataExcludedServices/ CSVData	O	Contains the billing details for Excluded Services Network DUoS data in CSV format. See usage notes below this table. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".

TRANSACTION:	NETWORKDUOSBILLINGNOTIFICATION	
Received From:	Distributor (331,332,334, 350,352) or Retailer (351,353)	
Sent To:	Retailer (331,332,334, 350,352) or Distributor (351,353)	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
CSVNetworkDUoSDataDispute Notification/ CSVData	O	Contains the Network DUoS billing dispute details in CSV format. See usage notes below this table. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".
CSVNetworkDUoSDataDispute Resolution/ CSVData	O	Contains the dispute resolution details in CSV format. See usage notes below this table. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".
CSVNetworkDUoSDataPaymen tAdvice/ CSVData	O	Contains the payment advice details for Network DUoS data in CSV format. See usage notes below this table. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".

Note that only one of the CSV elements in the above transaction can be populated at a time, ie. either CSVNetworkDUoSDataTariffV, or CSVNetworkDUoSDataTariffD, or CSVNetworkDUoSDataTariffH or CSVNetworkDUoSDataExcludedServices, or CSVNetworkDUoSDataDisputeNotification, or CSVNetworkDUoSDataDisputeResolution, or CSVNetworkDUoSDataPaymentAdvice can be populated.

CSV Elements

CSVNETWORKDUOSDATATARIFFV/CSVDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Old_Transaction_ID	O	Mandatory if Adjustment_Indicator is set to “C” for cancel; Optional if Adjustment_Indicator is set to “R” for re-bill; Blank at all times where Adjustment_Indicator is set to “N” for new.
Old_Invoice_Number	O	Mandatory if Adjustment_Indicator is set to “C” for cancel; Optional if Adjustment_Indicator is set to “R” for re-bill; Blank at all times where Adjustment_Indicator is set to “N” for new.
Transaction_Date	M	
Adjustment_Indicator	M	
Period	M	
Billing_Days	M	
Variable_Peak	M	
Variable_Off_Peak	M	
Fixed_Charge	M	

CSVNETWORKDUOSDATATARIFFV/CSVDATA		
Heading	Mandatory/ Optional	Comment
Total	M	
GST_Amount	M	
Type_of_Read	M	
Consumption_MJ	M	
Current_Read_Date	M	
Previous_Read_Date	M	
Distributor_ID	M	
Network_Tariff_Code	M	

CSVNETWORKDUOSDATATARIFFD/CSVDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Old_Transaction_ID	O	Mandatory if Adjustment_Indicator is set to “C” for cancel; Optional if Adjustment_Indicator is set to “R” for re-bill; Blank at all times where Adjustment_Indicator is set to “N” for new.
Old_Invoice_Number	O	Mandatory if Adjustment_Indicator is set to “C” for cancel; Optional if Adjustment_Indicator is set to “R” for re-bill; Blank at all times where Adjustment_Indicator is set to “N” for new.
Transaction_Date	M	
Adjustment_Indicator	M	
Billing_Month	M	
Demand_Period	M	
Max_MHQTY	M	GJ/hr
Max_MHQTP	M	GJ/hr
Expected_MHQ	M	

CSVNETWORKDUOSDATATARIFFD/CSVDATA		
Heading	Mandatory/ Optional	Comment
Consumption_GJ	M	Effectively sum of Consumption GJ Normal and Consumption GJ Substituted
Charge_TP	M	
GST_Amount	M	
Distributor_ID	M	
Network_Tariff_Code	M	

CSVNETWORKDUOSDATATARIFFH/CSVDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Old_Transaction_ID	O	Mandatory if Adjustment_Indicator is set to “C” for cancel; Optional if Adjustment_Indicator is set to “R” for re-bill; Blank at all times where Adjustment_Indicator is set to “N” for new.
Old_Invoice_Number	O	Mandatory if Adjustment_Indicator is set to “C” for cancel; Optional if Adjustment_Indicator is set to “R” for re-bill; Blank at all times where Adjustment_Indicator is set to “N” for new.
Transaction_Date	M	
Adjustment_Indicator	M	
Period	M	
Billing_Days	M	
Variable_Peak	M	
Variable_Off_Peak	M	
Fixed_Charge	M	

CSVNETWORKDUOSDATATARIFFH/CSVDATA		
Heading	Mandatory/ Optional	Comment
Total	M	Sum of all charges
GST_Amount	M	
Type_of_Read	M	
Consumption_MJ	M	Total of MJs in all periods
Current_Read_Date	M	
Previous_Read_Date	M	
Distributor_ID	M	
Network_Tariff_Code	M	
Distributor_Tariff	M	*Text field maybe 1 characters* Each Distributor will assign a single alpha to define the Distributor's tariff. Note: the same alpha can be used by multiple Distributors
Charge_1	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 1 and there are charges for the Period.
Charge_1_ Description	O	Mandatory if value present in Charge_1 Charge 1 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_2	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 2 and there are charges for the Period.
Charge_2_Description	O	Mandatory if value present in Charge_2

CSVNETWORKDUOSDATATARIFFH/CSVDATA		
Heading	Mandatory/ Optional	Comment
		Charge 2 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_3	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 3 and there are charges for the Period.
Charge_3_Description	O	Mandatory if value present in Charge_3 Charge 3 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_4	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 4 and there are charges for the Period.
Charge_4_Description	O	Mandatory if value present in Charge_4 Charge 4 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_5	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 5 and there are charges for the Period.
Charge_5_Description	O	Mandatory if value present in Charge_5 Charge 5 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_6	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 6 and there are charges for the Period.

CSVNETWORKDUOSDATATARIFFH/CSVDATA		
Heading	Mandatory/ Optional	Comment
Charge_6_Description	O	Mandatory if value present in Charge_6 Charge 6 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_7	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 6 and there are charges for the Period.
Charge_7_Description	O	Mandatory if value present in Charge_7 Charge 7 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_8	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 8 and there are charges for the Period.
Charge_8_Description	O	Mandatory if value present in Charge_8 Charge 8 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_9	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 9 and there are charges for the Period.
Charge_9_Description	O	Mandatory if value present in Charge_9 Charge 9 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*

CSVNETWORKDUOSDATATARIFFH/CSVDATA		
Heading	Mandatory/ Optional	Comment
Charge_10	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 10 and there are charges for the Period.
Charge_10_Description	O	Mandatory if value present in Charge_10 Charge 10 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_11	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 11 and there are charges for the Period.
Charge_11_Description	O	Mandatory if value present in Charge_11 Charge 11 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_12	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 12 and there are charges for the Period.
Charge_12_Description	O	Mandatory if value present in Charge_12 Charge 12 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_13	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 13 and there are charges for the Period.
Charge_13_Description	O	Mandatory if value present in Charge_13 Charge 13 description as recorded in the Distributor tariff table

CSVNETWORKDUOSDATATARIFFH/CSVDATA		
Heading	Mandatory/ Optional	Comment
		Text field maybe 30 characters.
Charge_14	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 14 and there are charges for the Period.
Charge_14_Description	O	Mandatory if value present in Charge_14 Charge 14 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_15	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 15 and there are charges for the Period.
Charge_15_Description	O	Mandatory if value present in Charge_15 Charge 15 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_16	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 16 and there are charges for the Period.
Charge_16_Description	O	Mandatory if value present in Charge_16 Charge 16 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_17	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 17 and there are charges for the Period.
Charge_17_Description	O	Mandatory if value present in Charge_17

CSVNETWORKDUOSDATATARIFFH/CSVDATA		
Heading	Mandatory/ Optional	Comment
		Charge 17 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_18	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 18 and there are charges for the Period.
Charge_18_Description	O	Mandatory if value present in Charge_18 Charge 18 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_19	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 19 and there are charges for the Period.
Charge_19_Description	O	Mandatory if value present in Charge_19 Charge 19 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*
Charge_20	O	$ Value GST Exclusive, populated when Network Tariff includes Charge 20 and there are charges for the Period.
Charge_20_Description	O	Mandatory if value present in Charge_20 Charge 20 description as recorded in the Distributor tariff table *Text field maybe 30 characters.*

CSVNETWORKDUOSDATAEXCLUDEDSERVICES/CSVDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Old_Transaction_ID	O	Mandatory if Adjustment_Indicator is set to “C” for cancel; Optional if Adjustment_Indicator is set to “R” for re-bill; Blank at all times where Adjustment_Indicator is set to “N” for new.
Old_Invoice_Number	O	Mandatory if Adjustment_Indicator is set to “C” for cancel; Optional if Adjustment_Indicator is set to “R” for re-bill; Blank at all times where Adjustment_Indicator is set to “N” for new
Transaction_Date	M	
Adjustment_Indicator	M	
Work_Request_Number	O	
RB_Reference_Number	O	

CSVNETWORKDUOSDATAEXCLUDEDSERVICES/CSVDATA		
Heading	Mandatory/ Optional	Comment
Excluded_Services_Code	M	
Line_Description	M	
Service_Date	M	
After_Hours_Ind	M	
Completion_Code	O	
Quantity	M	
Rate	M	
Excluded_Service_Charge	M	GST exclusive
GST_Amount	M	
Local_Capacity_Expiry_Date	O	If LCCs apply, then this element is required

CSVNETWORKDUOSDATADISPUTENOTIFICATION/CSVDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Transaction_Date	M	
Disputed_Amount_GST_Excl	M	
Disputed_Amount_GST_Incl	M	
Disputed_GST_Amount	M	
Dispute_Reason_Code	M	
Dispute_Comment	O	Required if Dispute_Reason_Code is set to OTHR

Note: There is only one dispute transaction returned per network charge transaction line, therefore one Dispute_Comments field is returned with the CSVNetworkDUoSDataDisputeNotification, or CSVNetworkDUoSDataDisputeResolution transaction. The Dispute_Comments field can include “free text” comments.

The retailer will only dispute each unique transaction id once.

If a transaction is in the midst of dispute action and is subsequently cancelled by the Distributor, the existing dispute action ends, and no further action is required.

If the transaction is subsequently rebilled by the Distributor, and the Retailer is satisfied with the rebilled transaction, no further action is required.

However, if the Retailer is not satisfied with the rebilled transaction, the Retailer can raise a new Dispute Notification. This action is allowed because the Distributor has created a new transaction when processing the rebilled transaction (ie. has a different Transaction_ID from the original transaction), and the Retailer is disputing this new transaction, effectively starting a new dispute on what is essentially an old transaction.

Where a Dispute Notification is not answered by the Distributor, no further action will be made until a Dispute Notification is cancelled or a Dispute Resolution transaction is provided by the Distributor.

CSVNETWORKDUOSDATADISPUTERESOLUTION/CSVDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Dispute_Reason_Code	M	
Dispute_Comment	O	Required if Dispute_Reason_Code is set to OTHR
Resolution_Date	M	
Agreed_Amount_GST_Excl	M	
Agreed_Amount_GST_Incl	M	
Agreed_GST_Amount	M	

CSVNETWORKDUOSDATAPAYMENTADVICE/CSVDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
GST_Inclusive_Amount_Paid	M	
GST_Amount	M	GST amount paid
GST_Exclusive_Amount_Paid	M	
Paid_Date	O	

Note: The DB is required to raise a cancel/re-bill on a resolved agreed amount, the retailer will then raise a subsequent payment advice relating to the agreed amount.

Where the dispute resolution does not change the original amount, a DB cancel/re-bill is not required, the retailer will release the payment on the next payment advice run.

The transaction is implemented as the NetworkDUoSBillingNotification transaction in aseXML. The transaction is in the following format:

FIGURE 4-62 NETWORKDUOSBILLINGNOTIFICATION ASEXML SCHEMA

XML Sample


```
<Header>
    <From description="TXU Networks">TXUN</From>
    <To description="TXU Retail">TXUR</To>
    <MessageID>TXUN-MSG-73645</MessageID>
    <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>NETB</TransactionGroup>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="TXUN-TXN-46735" transactionDate="2002-01-01T12:00:00+10:00">
        <NetworkDUoSBillingNotification version="r9">
            <CSVNetworkDUoSDataTariffH>
                <RecordCount>25364</RecordCount>
                <CSVData>
                NMI,NMI_Checksum,Transaction_ID,Invoice_Number,Old_Transaction_ID,Old_Invoi…
        6543726354,5,200107,X4635748,2001-07-21,60,475638.67,…
                8675398763,6,200107,G4856734,2001-07-19,60,4756384.57,…
                1872635439,2,200107,76453846588,2001-07-22,60,473645.87,…
                </CSVData>
            </CSVNetworkDUoSDataTariffH>
        </NetworkDUoSBillingNotification>
    </Transaction>
</Transactions>
```

4.6 Customer Details Information

4.6.1 Overview

Changes to Customer Details information is initiated by the Retailer and sent to the Distributor to maintain the most up to date Customer Contact Information. The Distributor uses this information to support contact management in relation to emergency and fault calls.

The following table shows the Customer Details aseXML transaction and the corresponding transactions from the Table of Transactions.

ASEXML TRANSACTION	TABLE OF TRANSACTIONS	
Transaction Name	Ref No	Transaction Type
CustomerDetailsNotification	70	Amend Customer Details

This business transaction will be mapped to the “CUST” Transaction Group in aseXML.

The transaction has been defined below.

4.6.2 Amend Customer Details

Customer Contact information assists the Distributor in terms of handling emergency and fault calls.

The Retailer has the primary contact relationship with the customer and is more likely to be notified of any changes to Customer Contact details.

Under the Distribution Access Arrangements, changes to Customer Contact details are to be supplied to the Distributor.

The CustomerDetailsNotification transaction is used by a Retailer to notify the Distributor of changes to Customer contact details.

The activity diagram below shows a high level view of this process.

FIGURE 4-63 AMEND CUSTOMER DETAILS ACTIVITY DIAGRAM

Process Sequence

In the course of managing Customer contact details a Retailer may wish to amend Customer contact details for a number of MIRNs. The changes are forwarded via the CustomerDetailsNotification transaction containing a CSVCustomer element to the Distributor to enable updating of the Distributor held data.

A change to customer contact details can occur as a result of

- A customer notifying the Retail that their contact details have changed.
- A move in situation has occurred and as a consequence the contact details for that premise require updating.

The diagram below shows the sequence of events for this transaction:

FIGURE 4-64 CUSTOMER DETAILS CHANGE SEQUENCE DIAGRAM

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	CustomerDetailsNotification/ CSVCustomer	Retailer	FRC Hub	99.6.3 -> 99.6.4
2	CustomerDetailsNotification/ CSVCustomer	FRC Hub	Distributor	

4.6.2.1 CustomerDetailsNotification/CSVCustomer

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 70 – AMEND CUSTOMER DETAILS
Trigger	This interface is triggered when a Retailer makes a change to a MIRN's Customer details
Pre-conditions	None
Post-conditions	Distributor possesses updated customer details
Transaction acknowledgment specific event codes	3665, 3666, 3670, 3672, 3674, 3677

The CustomerDetailsNotification/CSVCustomer transaction is used by the Retailer to notify a Distributor of changes to a MIRN's customer contact details.

Transaction Data Elements

TRANSACTION:	CUSTOMERDETAILSNOTIFICATION/ CSVCUSTOMER	
Received From:	Retailer	
Sent To:	Distributor	
Data Element	**Mandatory / Optional / Not Required**	**Usage**
RecordCount	M	Specifies the number of records contained in the populated CSV element
CSVCustomer/ CSVData	M	Contains the updated customer contact details data in CSV format. If RecordCount is set to 0, then the value of CSVData element must be set to xsi:nil="true".

CSV Elements

All specified fields are to be provided if available. Any fields sent as empty will be assumed to be empty and will be set to blank in the receivers database.

CSVCUSTOMER/CSVDATA		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Person_Name_Title	O	Contains customer's title
Person_Name_Given	O	Contains customer's first name
Person_Name_Family	O	Contains customer's surname, required if Business_Name is not populated
Business_ Name	O	Contains company or business name, required if Person_Name_Family is not populated
ContactDetail_ PersonName	O	Contains contact's mailing name or company name
Mail_ Address_Line_1	O	Contains formatted postal address details
Mail_ Address_Line_2	O	Contains formatted postal address details
Mail_ Address_Line_3	O	Contains formatted postal address details
Suburb_Or_ Place_Or_ Locality	M	Contains postal address suburb details
State_Or_Territory	M	Contains postal address state details
Postcode	M	Contains postal address postcode
ContactDetail_ PhoneNumber_1	O	Contains contact's primary phone number
ContactDetail_ PhoneNumber_2	O	Contains contact's secondary phone number
Sensitive_ Load_ Flag	O	A code that indicates whether the Retailer classifies the supply point as a sensitive load "Y" = Yes, "N" = No

CSVCUSTOMER/CSVDATA		
Heading	Mandatory/ Optional	Comment
Movement_ Type	M	A code that indicates the customer details update status“MI” = Move In, “MO” = Move Out, “UP” = Update

The transaction is implemented as the CustomerDetailsNotification/ CSVCustomer transaction in aseXML. The transaction is in the following format:

FIGURE 4-65 CUSTOMERDETAILSNOTIFICATION/CSVCUSTOMER ASEXML SCHEMA

Sample Transaction


```
<Header>
    <From description="Pulse">PULSE</From>
    <To description=" TXU Networks ">TXUN</To>
    <MessageID>TXUN_20030617123455</MessageID>
    <MessageDate>2003-06-17T12:34:55+10:00</MessageDate>
    <TransactionGroup>CUST</TransactionGroup>
    <Priority>Low</Priority>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="PULS-20030617123455" transactionDate="2003-06-17T12:34:55+10:00">
        <CustomerDetailsNotification version="r11">
            <CSVCustomer>
                <RecordCount>3</RecordCount>
                <CSVData>
NMI,NMI_Checksum, Person_Name_Title,Person_Name_Given,Person_Name_Family,Business_
Name,Contact_Detail/PersonName,Mail_Address_Line_1,Mail_Address_Line_2,Mail_Address_Line_3,Suburb_Or_Place
_Or_Locality,State_Or_Territory, Postcode,ContactDetail_PhoneNumber_1,
ContactDetail_PhoneNumber_2,Sensitive_Load_Flag,Movement_Type
5330463523,3,Mrs,Judy,Rowland,,J Rowland,PO Box 22,,,West Milford,VIC,3033,03 99894433,0414222222,N,MI
5330463456,6,,J,Harris,ARD Lawyers Pty Ltd,ARD Lawyers,14 Hope St,,,Greenwood,VIC,3112, 0398456777,,N,UP
5330342298,……,03 9446 6753,,Y,MI
                </CSVData>
            </CSVCustomer>
        </CustomerDetailsNotification>
```

```
        </Transaction>
    </Transactions>
```

4.7 Life Support Information

4.7.1 Overview

Part 7 of the National Energy Retail Rules (NERR) places specific obligations on both Retailers and Distributors in relation to obtaining, storing, exchanging and managing Life Support information.

In Victoria part 7 of the Energy Retail Code, and section 4A of the Gas Distribution System Code the places specific obligations on both Retailers and Distributors in relation to obtaining, storing, exchanging and managing Life Support information.

The transactions described in this section are to be used by Retailers and Distributors to support their respective obligation mentioned above.

The following table shows the aseXML transaction and the corresponding transactions from the Table of Transactions.

ASEXML TRANSACTION	TABLE OF TRANSACTIONS	
Transaction Name	Ref No	Transaction Type
LifeSupportNotification	80	Life Support Notification from RB
	81	Life Support Notification from DB
LifeSupportRequest	82	Life Support Request from RB
	83	Life Support Request from DB

This business transaction will be mapped to the “CUST” Transaction Group in aseXML.

The transaction has been defined below.

4.7.2 LifeSupportNotification (T80 and T81)

a) The initiator of the LifeSupportNotification can be a Current Retailer, prospective Retailer or a Distributor.

b) Where the Distributor or Retailer is informed by a customer that they require life support or there are changes to the life support information or requirement, they must advise the other party using the LifeSupportNotification with the information defined in the Transaction Data Elements table.

c) Following a change of Retailer, where the Distributor is the registration process owner, the Distributor must send the Current Retailer a LifeSupportNotification.

d) Where the Retailer or Distributor has completed the deregistration process for a Life Support customer they must send the other party an updated LifeSupportNotification.

e) In the absence of a relevant request, the LifeSupportNotification must be provided as per the timing obligation defined in the National Energy Retail Rules (NERR) rules 124(1)(c) or 124(4)(c), Victorian Energy Retail Code clause 125(1)(a)) and Victorian Gas Distribution Code clause 4A.3(1)(iv), as applicable.

Commented [DM2]: Updated post PPC. See Ref # 62A attachment F of IIR

f) Where the prospective Retailer has provided a LifeSupportNotification to the Distributor and life support registration is no longer required:

i. The prospective Retailer must send the Distributor an updated LifeSupportNotification and

ii. The Distributor may update their records accordingly.

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 80 – LIFE SUPPORT INFORMATION CHANGE FROM RB • 81 – LIFE SUPPORT INFORMATION CHANGE FROM DB
Trigger	This interface is triggered when either a Retailer or Distributor establishes or makes a change to a customer's Life Support data.
Pre-conditions	None
Post-conditions	Receiving participant has recorded the data change.
Transaction acknowledgment specific event codes	

Commented [DM3]: Updated post PPC. See Ref # 47 attachment F of IIR

The LifeSupportNotification transaction is used by the Retailer or Distributor to notify the other participant of a change to a customer's Life Support data.

Commented [DM4]: Updated post PPC. See Ref # 48 attachment F of IIR

Transaction Data Elements

TRANSACTION:	LIFESUPPORTNOTIFICATION	
Received From:	Retailer or Distributor	
Sent To:	Distributor or Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage** Note – For Allowable Value information please see section of A1 AseXML Data Elements Participant Build Pack 3 B2B System Interface Definitions
NMI	M	
Checksum	M	

SiteAddress	O	
Reason	M	
RegistrationOwner	O	Required if the initiator of the LifeSupportNotification is the Life Support registration process owner. The value of "YES" is required. Not required where LifeSupportStatus is None
LifeSupportStatus	M	
DateRequired	O	
LSEquipment	O	Required if LifeSupportStatus is • Registered - No Medical Confirmation • Registered - Medical Confirmation Note: Where more than one allowable value is required, select one of the allowable values and provide the additional allowable value in the SpecialNotes field Not required when LifeSupportStatus is • Deregistered - No Medical Confirmation • Deregistered - Customer Advice • Deregistered - No Customer Response • None
LSContactName	O	Required if LifeSupportStatus is • Registered - No Medical Confirmation • Registered - Medical Confirmation Must be the name of the person who is the contact for the management of Life Support requirements. Not required when LifeSupportStatus is • Deregistered - No Medical Confirmation • Deregistered - Customer Advice • Deregistered - No Customer Response • None

LSPostalAddress	O	Required if LifeSupportStatus is • Registered - No Medical Confirmation • Registered - Medical Confirmation Must be the Customer's postal address for Life Support requirements. Not required when LifeSupportStatus is • Deregistered - No Medical Confirmation • Deregistered - Customer Advice • Deregistered - No Customer Response • None
LSPhoneNumber1	O	Required if LifeSupportStatus is • Registered - No Medical Confirmation • Registered - Medical Confirmation Must be the phone number of the person who is the contact for the management of Life Support requirements. Not required when LifeSupportStatus is • Deregistered - No Medical Confirmation • Deregistered - Customer Advice • Deregistered - No Customer Response • None
LSPhoneNumber2	O	Required if LifeSupportStatus is • Registered - No Medical Confirmation • Registered - Medical Confirmation Must be the phone number of the person who is the contact for the management of Life Support requirements. Not required when LifeSupportStatus is • Deregistered - No Medical Confirmation • Deregistered - Customer Advice • Deregistered - No Customer Response

		• None
LSContactEmailAddress	O	Required if LifeSupportStatus is • Registered - No Medical Confirmation • Registered - Medical Confirmation Must be the email address of the person who is the contact for the management of Life Support requirements where the initiator has obtained ~~Explicit Informed C~~consent for the use of the email address. Not required when LifeSupportStatus is • Deregistered - No Medical Confirmation • Deregistered - Customer Advice • Deregistered - No Customer Response • None
PreferredContactMethod	O	
SpecialNotes	O	Required if LSEquipment is “Other”
LastModifiedDateTime	M	Date and time that the record was updated in the Initiator’s system

Commented [AP5]: Amended since PPC, please see Ref #49

Sample Transaction


```
<Header>
    <From description="Pulse">PULSE</From>
    <To description=" TXU Networks ">TXUN</To>
    <MessageID>TXUN_20030617123455</MessageID>
    <MessageDate>2005-10-15T01:02:40+10:00</MessageDate>
    <TransactionGroup>CUST</TransactionGroup>
    <Priority>Medium</Priority>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionDate="2005-10-15T01:02:40+10:00" transactionID="XUN_20030617123455">
        <LifeSupportNotification version="r38">
            <LifeSupportData>
                <NMI checksum="7">5600012357</NMI>
                <Reason>Update</Reason>
                <RegistrationOwner>Yes</RegistrationOwner>
                <Status>Deregistered - No Customer Response</Status>
                <DateRequired>2005-10-19</DateRequired>
                <LastModifiedDateTime>2005-10-14T10:02:35+10:00</LastModifiedDateTime>
            </LifeSupportData>
```

```
            </LifeSupportNotification>
        </Transaction>
    </Transactions>
```

4.7.3 LifeSupportRequest (T82 and T83)

a) Where a Retailer or Distributor requires a confirmation of a current life support status at a MIRN they may send a LifeSupportRequest to the other party.

b) The Recipient of a valid LifeSupportRequest must provide a LifeSupportNotification and use best endeavours to respond within 2 business days and no later than 5 business days.

c) If a LifeSupportNotification is not received within 5 business days the Initiator may contact the Recipient.

d) The party responding to a LifeSupportRequest does not need to be the registration process owner[2].

e) An initiator must only send a maximum of one LifeSupportRequest per MIRN per day.

Commented [DM6]: Updated post PPC. See Ref # 51 attachment F of IIR

f) If parties wish to obtain mass updates of information, parties must reach an agreement to use this transaction.

TRANSACTION DEFINITION TABLE CROSS-REFERENCE	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE GPTWG TRANSACTION DEFINITION TABLE: • 82 – LIFE SUPPORT REQUEST FROM RB • 83 – LIFE SUPPORT REQUEST FROM DB
Trigger	This interface is triggered when either a Retailer or Distributor needs to confirm the status of Life Support for a MIRN.
Pre-conditions	None
Post-conditions	
Transaction acknowledgment specific event codes	

Transaction Data Elements

[2] Registration Process Owner means - the party that took the initial contact from the customer which includes recording the medical confirmation that was supplied

TRANSACTION:	LIFESUPPORTREQUEST	
Received From:	Retailer or Distributor	
Sent To:	Distributor or Retailer	
Data Element	**Mandatory / Optional / Not Required**	**Usage** Note – For Allowable Value information please see section of A1 AseXML Data Elements Participant Build Pack 3 B2B System Interface Definitions
NMI	M	
Checksum	M	
Reason	M	
SpecialNotes	O	Required if Reason is "Other" Not required if Reason is • Confirm Life Support • Data Quality Issue • No response to rejected LSN • "Update" • "Reconciliation"

Sample Transaction

Commented [DM7]: Updated post PPC. See Ref # 53 attachment F of IIR

```
<Header>
    <From description="Pulse">PULSE</From>
    <To description=" TXU Networks ">TXUN</To>
    <MessageID>TXUN_20030617123455</MessageID>
    <MessageDate>2005-10-15T01:02:40+10:00</MessageDate>
    <TransactionGroup>CUST</TransactionGroup>
    <Priority>Medium</Priority>
    <Market>VICGAS</Market>
</Header>
<Transactions>
    <Transaction transactionDate="2005-10-15T01:02:40+10:00" transactionID="XUN_20030617123455">
        <LifeSupportRequest version="r38">
            <NMI Checksum = "9">5600012357</NMI>
            <Reason>Confirm Life Support</Reason>
        </LifeSupportRequest>
    </Transaction>
</Transactions>
```

Appendix A. Data Dictionary

A.1 aseXML Data Elements[3]

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
AcceptedCount	Accepted Count	The number of Meter Reads accepted	Integer		
AccessDetails	Special Access Arrangements	Access Instruction supplied by the Retailer. This could be in relation to how to get into the property and/or locating the gas meter. This field may also include the details in relation to job initiator and contact details.	String	160	
	Site Access Information	Additional instruction as to how to locate the property and/or the whereabouts of the meter.	String	160	
actionType	Action Indicator	An indicator pertaining to Service Request that identifies whether that request is new, or modified.	String	Enum	"New" "Cancel"

[3] Codes and enumerations in PBP3: In most cases aseXML uses enumerations of fully expanded descriptions. Exception to this rule is the use of codes that have been already in use in the electricity FRC. CSV data elements utilise acronyms and abbreviations instead.

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					Note: Implemented as an attribute of "ServiceOrderRequest" element in aseXML schema
ActivityID	Activity ID	Identifier of the receiver's process that processed a CSV file.	Integer	10	
AdditionalDataToFollow	N/A	Used in MIRN Discovery Response transactions to indicate that additional MIRN data will be supplied	String	Enum	"true" "false"
Address	Address	Supply Point address in aseXML structured format (See Address elements)			
AdjustmentReasonCode	Adjustment Reason Code	A code that the Distributor provides to the retailer which identifies the reason for the revised reading	String	Enum	"Under Read" "Over Read" "Under Estimate" "Over Estimate" “No Change”

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
AppointmentDetail / Preferred/ Date	Appointment Date	Date Customer/Retailer requires work to commence.	Date	10	ccyy-MM-dd
	Nominated Installation Date	In relation to a service Connection request the date in which the RB nominates the work to be completed by.	Date	10	ccyy-MM-dd
	Nominated Completion Date	In relation to a Service Connection request the date in which the DB nominates the work to be completed by.	Date	10	ccyy-MM-dd
AppointmentDetail / Preferred/ Time	Appointment Time	Time Customer/Retailer requires work to commence.	Time	14	hh:mm:ss+hh:mm
checksum	MIRN Checksum	Is a number calculated by an algorithm for validation purposes and is an attribute of the MIRN	Integer	1	Note: Implemented as an attribute of "NMI" element in aseXML schema
COCNumber	COC Number	Certificate of Compliance. A number in which the Plumber will assign to this premise as provide by Plumbers Industry Commissions.	String	8	

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
CommunicationEquipmentPresent	Communication Equipment	For the purposes of MIRN discovery details on what metering communication equipment is on site.	String	Enum	"true" "false"
ContactDetail/ PersonName	Customer Name	Name of Customer a Retailer passes to a Distributor in relation to a Service Request. Passed in aseXML structured format			
ConsumptionThesholdCode	Consumption Threshold Code	In relation to a business customer, type of classification based on consumption thresholds, as per the NERL obligations	String	20	"LOW" = business customer with consumption from 0GJ up to 399GJ "MED" = business customer with consumption from 400GJ up to 999GJ "HIGH" = business customer with consumption of 1000GJ or more.
ContactDetail/ PhoneNumber	Customer Contact Number	Contact telephone number pertaining to the requesting person. Passed in aseXML structured format			

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
CSVConsumption Data	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.1.2.1 of this document
CSVNetworkDUoSDataExcludedServices/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2 of this document
CSVNetworkDUoSDataTariffD/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2 of this document
CSVNetworkDUoSDataTariffV/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2 of this document
CSVNetworkDUoSDataTariffH/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2 of this document
CSVNetworkDUoSDataDisputeNotification/CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2 of this document

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
CSVNetworkDUoSDataDisputeResolution/CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2 **Error! Reference source not found.** of this document
CSVNetworkDUoSDataPaymentAdvice/CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section **Error! Reference source not found.**4.5.2 of this document
CSVAmendSiteAddressDetails/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section **Error! Reference source not found.**4.5.2 of this document
CSVAmendCustomerDetails	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.4.5.1 of this document
Current/ IndexValue	Current Index Value	Most recent validated meter index stored on the database.	Integer	7	

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Current/ MeterData/ Currrent/ IndexValue	New Index Value	The Meter Reading index that will be processed to calculate the Energy Flow.	Integer	7	
Current/ ReadDate	Current Read Date	The date on which the Current Index Value was read.	Date	10	ccyy-MM-dd
CurrentRead/ IndexValue	Current Index Value	Most recent validated meter index stored on the database.	Integer	7	
CurrentRead/ ReadDate	Current Read Date	The date on which the Current Index Value was read.	Date	10	ccyy-MM-dd
CustomerCharact erisation	Customer Characterisation	In relation to a customer, whether the customer is metropolitan or non-metropolitan and business or residential.	String	Enum	"Metropolitan Business" "Metropolitan Residential" "Non Metropolitan Business" "Non Metropolitan Residential"
CustomerClassific ationCode	Customer Classification Code	In relation to a customer whether the customer is residential or business, as per the NERL obligation.	String	20	"RES" = Residential Customer "BUS" = Business Customer

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
DateOfAttempted Access	Date of Attempted Access	Date on which access was attempted and was not available	Date	10	ccyy-MM-dd
DateServiceOrder Completed	Date Service Request Completed	Date on which the Service requested was completed.	Date	10	ccyy-MM-dd
DateTimeCSRAccessedCustomerRecord	Date CSR Accessed Customer Record	Date the Customer Service Representative initially accessed the record	Date Time	25	ccyy-MM-ddThh:mm:ss+hh:mm
	Time CSR Accessed Customer Record	Time the Customer Service Representative initially accessed the record			
DateTimeCSRProcessedTransaction	Date CSR Processed Transaction	Date Customer Service Representative activated the request.	Date Time	25	ccyy-MM-ddThh:mm:ss
	Time CSR process transaction	Time Customer Service Representative activated the request			
DateRequired	Date Required	For a registration of Life Support, this date will be the date Life	Date	10	ccyy-MM-dd

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		Support protections commence at the premises. For a deregistration of Life Support, this date will be the date Life Support protection ceases to be provided at the premises. For response to a Life Support Request, this will be the effective date of the Life Support registration in the participants system.			
DistributionTariff	Distribution Tariff	Part of the request for standing data from the Distributor	String	Enum	"Volume" "Demand"
DogCode	Dog Code	Code to indicate whether a dog is located at the premises and its temperament.	String	Enum	"Bluff" "Savage" "Tied" "Friendly" "Dog OK" "Dog Caution" "No Dog"

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Event	Return Code	An element that may be returned with a transaction acknowledgement or a response transaction to identify errors encountered.			See Ref.[5] and Appendix C – Event Codes For child element “KeyInfo” the Format = String and the Length = 80 characters.
ExcludedServices Charges/ ChargeItem/ Category	Excluded Services Category	Charge category of an excluded service	String	Enum	"Service" "Meter" "Logger" "O+M" "Mains" "Other"
ExcludedServices Charges/ ChargeItem/ Amount	Excluded Services Amount	Excluded Services Charges that may apply in relation to a supply point and is part of the standing data request.	Numeric	9,2	
ExcludedServices Charges/	Excluded Services Expiry Date	Date in which the Excluded Services Charges expires and is part of the standing data request	Date	10	ccyy-MM-dd

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
ChargeItem/ ExpiryDate					
HeatingValueZone	Heating Value Zone	In relation to a supply point, the heating value zone which is determined by AEMO as the heating value for that zone	String	3	
InitiatorReferenceNumber	RB Reference Number	A unique reference number assigned to individual work requests raised by the RB.	String	10	
InvestigationCode	Investigation Code	A code which the Retailer pass the Distributor as part of a Data change investigation	String	Enum	"High Account" "Customer Away" "Zero Consumption" "Customer Query" “Customer Read”
InvestigationDescription	Investigation Description	The free format field which the Retailer can detail what is to be investigated in relation to a Data Change	String	100	

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
JobCompletionCode1	Job Completion Code 1	Code that represent the work undertaken by the Distributor.	String	Enum	See table of elements in Participant Build Pack 1
JobCompletionCode2	Job Completion Code 2	Code that represent the work undertaken by the Distributor.	String	Enum	See table of elements in Participant Build Pack 1
JobCompletionCode3	Job Completion Code 3	Code that represent the work undertaken by the Distributor.	String	Enum	See table of elements in Participant Build Pack 1
JobEnquiryCode	Job Enquiry Code	Code that describes the nature of the work. However receivers of the work will need to show the appropriate "Priority Code" as per industry A to K list.	String	Enum	See table of elements
JurisdictionCode	N/A	Mandatory element for MSATS use. Not used by Gas	String	3	"VGI"
LastModifiedDateTime	N/A	A timestamp that may be used by an application to determine whether the supplied data is the latest information	DateTime	25	ccyy-MM-ddThh:mm:ss+hh:mm
LifeSupportStatus	Life Support Status	The status of Life Support	String	Enum	Allowable Values:

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					"Registered - No Medical Confirmation" "Registered - Medical Confirmation" "Deregistered - No Medical Confirmation" "Deregistered - Customer Advice" "Deregistered - No Customer Response" "None" 'None' means that the premises doesn't have a current Life Support requirement
LSContactName	Life Support Contact Name	Name of the Life Support Contact. Must be the name of the person who is the contact for the management of Life Support			

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		requirements. Passed in aseXML structured format			
LSContactEmailAddress	Life Support Contact e-mail address	Must be the email address of the person who is the contact for the management of Life Support requirements where the initiator has obtained ~~Explicit Informed C~~consent for the use of the email address.	String	100	Must be a valid email address format
LSEquipment	Life Support Equipment	Life Support Equipment at property	String	Enum	Allowable values: "Oxygen Concentrator" "Intermittent Peritoneal Dialysis Machine" "Kidney Dialysis Machine" "Chronic Positive Airways Pressure Respirator" "Crigler Najjar Syndrome Phototherapy Equipment" "Ventilator For Life Support"

Commented [AP8]: Amended from PPC; see Ref #49.

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					"Other" 'Other' means an equipment that a registered medical practitioner certifies is required for a person residing at the customer's premises for life support and is not already listed above
LSPhoneNumber 1	Life Support Phone number 1	Must be the phone number of the person who is the contact for the management of Life Support requirements. Passed in aseXML structured format			
LSPhoneNumber 2	Life Support Phone number 2	Must be the phone number of the person who is the contact for the management of Life Support requirements. Passed in aseXML structured format			
LSPostalAddress	Life Support Postal Address	Address in aseXML structured format (See Address elements)			

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		Must be the Customer's postal address for Life Support requirements.			
LoadDate	Load Date	The date the data was loaded into the Meter Register	DateTime	25	ccyy-MM-ddThh:mm:ss+hh:mm
LoadDetails/PerAnnum	Load Details per Annum	The estimated load for a Supply Point per annum (consumption in MJ) that is expected to be used by the customer at this site which assists the Distributor determining the infrastructure (such as service fitting line/meter capacity) to be installed.	Integer	10	
LoadDetails/PerHour	Load Details per Hour	The estimated load for a Supply Point per hour (consumption in MJ) that is expected to be used by the customer at this site that assists the Distributor determining the infrastructure (such as service fitting line/meter capacity) to be installed.	Integer	6	

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Market	N/A	Indicates the energy market to which the aseXML message belongs.	String	10	For Victorian Gas FRC the only value is "VICGAS"
MelwayGridReference	Melway Grid Reference	Map reference that indicates were street is located in relation to the Melway Street Directory	String	9	
MeterInletPressure	Meter Inlet Pressure	Gas supply pressure to the inlet of the meter, measured in Kpa	Numeric	6,2	
MeterPosition	Gas Meter Position	Position in relation to the location of the gas meter.	String	Enum	See table of elements
MeterReadFrequency	Meter Read Frequency	Frequency on which the meter is read	String	Enum	"Bi Monthly" "Monthly" "Quarterly"
MeterSerialNumber	Gas Meter Number	Number located on the gas meter.	String	12	
MeterStatus	Meter Status	Field that confirms if a disconnection has taken place.	String	Enum	"Turned on" "Turned off"

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		Meter Disconnection by Retailer notification to Distributor.			"Plugged' "No meter"
MeterTypeSizeCode	Meter Type Size Code	Identifies type of meter and manufacturer	String	3	
MIRNStatus	MIRN Status	Indicator supplied by the Distributor to advise whether the upstand is removed and is therefore de-registered.	String	Enum	“Registered” - Initial installation of upstand with no meter “Commissioned” – Upstand with meter “Decommissioned” – Upstand only with meter removed Deregistered” – Upstand removed
New/ MeterRead/ Current/ IndexValue	New Index Value	The New Meter Reading index that will be processed to calculate the Energy Flow.	Integer	7	

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
New/ MeterSerialNumber	New Gas Meter Number	In relation to a Meter Change the new Meter Number.	String	12	
New/ MeterTypeSizeCode	New Meter Type Size Code	In relation to a upgrade meter size transaction identifies type of meter and manufacturer of the new meter	String	3	
New/ PressureCorrectionFactor	New Pressure Correction Factor	In relation to an upgrade meter size transaction the Pressure Correction Factor applied to calculate gas flow for the new meter.	Numeric	6,4	
NextAvailableReadDate	Next Available Special Read Date	Date the Distributor assigns when the reading can next be booked	Date	10	ccyy-MM-dd
NextScheduledReadDate	Next Scheduled Read Date	According to the Meter Reading Schedule the next date on which the Meter is planned to be read.	Date	10	ccyy-MM-dd
NextScheduledSpecialRead/ Preferred/ Date	Appointment Date	For GasStandingData indicates a Special Read booking that could be used as a Customer Transfer Date.	Date	10	ccyy-MM-dd

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
NMI	MIRN	Meter Installation Registration Number. Unique number allocated by the Distributor that identifies the Supply Point.	String	10	
NMIWithChecksum	MIRN	Meter Installation Registration Number. Unique number allocated by the Distributor that identifies the Supply Point.	String	10	
NotificationData/SpecialNotes/CommentLine	SORD Not Complete Comment	Required if Service Order is attempted but not successfully completed, including when cancelled by the DB For the avoidance of doubt, not required for retailer initiated B2B cancellation transaction unless:.. Retailer Cancel SO was rejected by the DB but later cancelled in the field SO cancellation was verbally communicated by the Retailer.	String	80	

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		Up to 3 comment lines can be provided (80 characters each) Note: Participants will refer to this field as SORDNotCompleteComment/CommentLine			
PlumberLicenceNumber	Plumber Licence Number	Plumbers Licence Number which is required as part of a Meter Fix process	String	6	
PreferredContactMethod	Preferred Contact Method	Preferred Contact Method	String	Enum	Allowable values: "Postal Address" "Site Address" "Email Adress" "Phone"
PressureCorrectionFactor	Pressure Correction Factor	Pressure Correction Factor applied to calculate gas flow.	Numeric	6,4	

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
ProposedRead / IndexValue	Proposed Index Value		Integer	7	
ProposedRead / ReadDate	Proposed Read Date	Date of proposed read	Date	10	ccyy-MM-dd
Reason	Reason	Reason why Life Support information has been provided. Used in LifeSupportNotification and LifeSupportRequest transations. Notes regarding the allowed values for LifeSupportRequest. • "Confirm Life Support" means the Retailer or Distributor requires confirmation of whether the Connection Point has a Life Support requirement or not. • "Data Quality Issue" means that although the data may be technically correct, it may not be fit for purpose	String	Enum	Allowable values for LifeSupportNotification transaction are: "Update" "Reconciliation" Allowable values for LifeSupportRequest transactions are: "Confirm Life Support" "Data Quality Issue" "No response to rejected LSN" "Other"

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		(e.g. phone number is 9999999). The Retailer or Distributor must provide which specific data they are querying in the SpecialNotes field. • "No response to rejected LSN" means that a Retailer or Distributor has rejected a previous LSN where it was reasonably expected the Retailer or Distributor would send through a new LSN with updated/corrected information, which has not yet been received. "Other" must only be used for scenarios not covered by the specified allowed values. The Retailer or Distributor must provide the details of the reason in the SpecialNotes field.			

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
ReasonForNoAccess	Reason for No Access by Meter Reader	Reason why access to meter was not available.	String	Enum	"Meter Removed" "Meter Obstructed" "Dirty Dial" "Can't Locate Meter" "Gate Locked" "Savage Dog" "Meter Changed" "Refused Access" "Locked and No Answer" "Damaged Meter" "Dial Out of Alignment" "Key Required" "Access Overgrown" "Other"
RecordCount	N/A	Specifies the number of records contained in a populated CSV element	Integer	10	
RegistrationOwner	Registration Owner	Registration Owner for Life Support	String	Enum	"YES" "NO"

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Removed/ MeterData/ Current/ IndexValue	Old Gas Meter Index Value	The Index Value which was read from the old meter in relation to a meter change	Integer	7	
Removed/ MeterSerialNumber	Old Gas Meter Number	The old gas meter number which pertains to a meter change	String	12	
responseType	N/A	Used by aseXML to identify the context of the ServiceOrderResponse	String	Enum	"Initial" "Closure" Note: Implemented as an attribute of "ServiceOrderResponse" element in aseXML schema
RevisedRead/ ReadDate	Revised Index Date	In relation to a Data Change, the date pertaining to the revised index value	Date	10	ccyy-MM-dd

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
RevisedRead/ IndexValue	Revised Index Value	In relation to a Data Change it is the revised index value the Distributor sends to Retailer	Integer	7	
ScheduledReadingDayNumber	Scheduled Reading Day Number	In relation to a Meter Reading Route Schedule change the day number on which the meter will be read.	String	2	
ServiceOrderNumber	RB Reference Number	A unique reference number assigned to individual work requests raised by the RB.	String	10	
ServiceProviderReference	Work Request Number	Unique reference number which the Distributor assigns to the work for tracking and auditing purposes.	String	15	
SiteAddress	Address	Supply Point address in aseXML structured format (See Address elements)			
SORDSpecialComments/CommentLine	Special Job Instructions	Additional information to assist field staff to complete the job	String	160	Note: Implemented as two 80 character elements in the aseXML schema

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
SpecialNotes	Special Notes	Any additional information the Initiator wishes to convey to the Recipient. Used in LifeSupportNotification and LifeSupportRequest transations	String	240	
SpecialReadReasonCode	Reason for Special Read	What type of Special Read is to be performed.	String	Enum	"Final Read" (SRF) "Check Read" (SRR) "Account Investigation" (SRA) "Change of Retailer" (SRT) Note: Code equivalent in brackets
StartWorkNoticeNumber	Start Work Notice Number	The number which appears on a Start Work Notice issue by the Distributor for a "B" Type Safety Regulator records	String	6	
SupplyPointCode	Supply Point Code	Identifies whether the supply point is distribution or transmission and whether it has a basic or interval meter installed.	String	Enum	"Basic" "Interval" "Transmission"

ASEXML ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
TimeServiceOrderCompleted	Time Service Order Completed	The time in which the service request was completed	Time	14	hh:mm:ss+hh:mm
TransmissionZone	Transmission Zone	A code that defines a Transmission zone	Integer	2	
TypeOfRead	Type of Read	Indicator identifying the type of reading that has taken place.	String	Enum	"Actual" "Estimated" "Substituted" "Customer Own Read"

A.2 CSV Data Elements[32]

The table below specifies the column designators for CSV data elements that are carried inside of some of aseXML transactions. Note, the order of CSV column designators is fixed and is as per definition of CSV files given by this document. All CSV data elements that convey time stamps represent them as Market Time, i.e. EST; no time zone information is required.

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Address_Change_Effective_Date	Address Change Effective Date	Date on which the Address information change is to commence	Date	10	ccyy-MM-dd
Adjustment_Indicator	Adjustment Indicator	Indicates the type of adjustment	String	1	"C" = Cancelled Transaction "R" = Rebilled Transaction "N" = New Transaction
Adjustment_Reason_Code	Adjustment Reason code	A code that the Distributor provides to the retailer which identifies the reason for the	String	2	“UR” = Under Read “OR” = Over Read “UE” = Under Estimated

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		revised reading			“OE” = Over Estimated “NC” = No Change
After_Hours_Ind	After Hours Ind	Specifying whether the job occurred within normal or after hours.	String	1	"0" = Normal Hours "1" = After Hours "2" = Not Known
Agreed_Amount_GST_Excl	Agreed Amount GST Exclusive	The agreed amount (exclusive of GST) which reflects the outcome of the dispute resolution process. It may be a new amount or the original amount.	Numeric	11,2	
Agreed_Amount_GST_Incl	Agreed Amount GST Inclusive	The agreed amount (inclusive of GST) which	Numeric	11,2	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		reflects the outcome of the dispute resolution process. It may be a new amount or the original amount.			
Agreed_GST_Amount	Agreed GST Amount	The agreed GST amount which reflects the outcome of the dispute resolution process. It may be a new amount or the original amount.	Numeric	11,2	
Average_Heating_Value	Average Heating Value	Is the sum of the Daily Weighted Flow Heating Value divided by the number of days for the	Numeric	4,2	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		reading/billing.			
Billing_Days	Billing Days	In relation to tariff "V" DUoS charges, the number of days in the bill period — calculated as the difference between the ReadFrom and ReadTo dates.	Numeric	3,0	
Billing Period	Billing Period	In relation to DUoS network charges, the month in which this charge has been billed to the Retailer.	String	6	ccyyMM
Building_Or_Property_Name_1	Building Or Property Name (Address Elements)	Defines the building or	String	30	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Building_Or_Property_Name_2		property name as per Australian Standard AS4590			
Business_ Name	Business_ Name	Contains company or business name, required if Person_Name_Family is not populated	String	60	
Charge_x	Charge x	$ Value GST Exclusive, populated when Network Tariff includes Charge x and there are charges for the Period.	Numeric	11,2	“x” can equal 1-20
Charge_x_ Description	Charge_x_ Description	$ Value GST Exclusive, populated when Network Tariff includes Charge x and there are charges for the Period.	String	30	“x” can equal 1-20
Charge_TP	Charge TP (DUoS This Period) , GST Exclusive))	In relation to tariff "D" DUoS	Numeric	11,2	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		charges, the charge for the period. This amount is GST Exclusive.			
Completion_Code	Completion Code	Tyep of completion	String	1	"0" = Incomplete "1" = Complete "2" = Partial
Consumed_Energy	Consumed Energy	Energy calculated (eg - Energy Flow)	Numeric	11,0	Megajoules
Consumption_GJ	Consumption (GJ)	In relation to tariff "D" DUoS charges, the actual GJ recorded by the data logger/meter and any substituted GJ	Numeric	11,3	
Consumption_MJ	Consumed Energy (Megajoules)	Energy calculated (eg - Energy Flow)	Numeric	11,0	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Consumption_Threshold_Code	Consumption Threshold Code	In relation to a business customer, type of classification is based on consumption thresholds, as per the NERL obligations	String	20	"LOW" = Business Customer with consumption from 0GJ up to 399GJ "MED" = Business Customer with consumption from 400GJ up to 999GJ "HIGH" = Business Customer with consumption of 1000GJ or more.
ContactDetail_ PersonName	ContactDetail_ PersonName	Contains contact's mailing name or company name	String	60	
ContactDetail_ PhoneNumber_1	ContactDetail_ PhoneNumber_1	Contains contact's primary phone number	String	15	
ContactDetail_ PhoneNumber_2	ContactDetail_ PhoneNumber_2	Contains contact's secondary phone number	String	15	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Current_Index_Value	Current Index Value	Most recent validated meter index stored on the database.	Numeric	7,0	
Current_Read_Date	Current Read Date	The date on which the Current Index Value was read.	Date	10	ccyy-MM-dd
Customer_Characterisation	Customer Characterisation	In relation to a customer, whether the customer is metropolitan or non-metropolitan and business or residential.	String	2	"MB" = Metro Business "MR" = Metero Residential "NB" = NonMetro Business "NR" = NonMetro Residential
Customer_Classification_Code	Customer Classification Code	In relation to a customer, whether the customer is residential or business, as per the NERL obligations	String	20	"RES" = Residential Customer "BUS" = Business Customer

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Delivery_Point_Identifier	Site Address DPID	Defines the delivery point identifier as per Australian Standard AS4590	String	8	
Demand Period	Demand Period	In relation to DUoS Tariff D network charges, the month in which energy was consumed.	String	6	ccyyMM
Disputed_Amount_GST_Excl	Disputed Amount GST Exclusive	The Disputed_Amount_GST_Excl is the amount of the original transaction. (NetworkDUoSBillingNotification)	Numeric	11,2	
Disputed_Amount_GST_Incl	Disputed Amount GST Inclusive	The Disputed_Amount_GST_Incl	Numeric	11,2	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		is the amount of the original transaction. (NetworkDUoSBillingNotification)			
Disputed_GST_Amount	Disputed GST Amount	The Disputed_GST_Amount is the amount of the original transaction. (NetworkDUoSBillingNotification)	Numeric	11,2	
Dispute_Reason_Code	Dispute Reason Code	Applicable Dispute Reason Code	String	4	"NNMI" = MIRN not known to Retailer (i.e. Retailer does not supply customer). "BPDF" = Billing Period Different

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					"LRTB" = Retailer has lost customer to another retailer before the invoiced period. "LRTD" = Retailer lost customer to another retailer during the invoiced period (therefore need to apportion network charge between old and new retailer). "NDFG" = Network tariff different – generic "NDFO" = Network tariff charge different – Off Peak "NFP" = Network tariff charge different – Peak "QDFG" = Consumption different – generic

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					"DUPL" = Duplicate charge (bill period) "ESDF" = Excluded service charge different "ESDP" = Excluded service code disputed (Excluded Service Code does not match SO type) "OTHR" = Other charge "BDDF" = Bill days different "FCDF" = Fixed charge different "TOTD" = Total charge different "MHQY" = Actual MHQ this year different

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					"MHQT" = Actual MHQ this period different "MHQE" = Expected MHQ this year different "URSO" = Unknown Retailer Service Order (retailer does not believe this amount should be charged at all)
Dispute_Comment	Dispute Reason Comment, Dispute_Resolution Comment	Free text field to provide additional explanation for the dispute.	String	240	
Distributor_ID	Disitrbutor Id	Code identifying a distributor	String	10	Refer to Participant aseXML element values in Ref.[9]. Note, only codes identifying distributors can be used for this element.
Distributor_Tariff	Distributor_Tariff	Defines the tariff type in the CSV file	String	1	Each Distributor will assign a single alpha to

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					define the Distributor's tariff. Note: the same alpha can be used by multiple Distributors.
Duration_Of_Outage	Duration of Outage	Approximate number of hours for the planned outage	Numeric	2,0	
Energy_Calculation_Date_Stamp	Energy Calculation Date Stamp	The date in which the distributor calculated the energy	Date	10	ccyy-MM-dd
Energy_Calculation_Time_Stamp	Energy Calculation Time Stamp	The time in which the distributor calculated the energy	Time	8	hh:mm:ss

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Estimation_Substitution_Reason_Code	Estimation/Substitution Reason Code	Code that identifies why the Energy Flow was estimated/substituted	String	2	“01” = Meter Removed “02” = Meter Obstructed “03” = Dirty Dial “04” = Can't Locate Meter “05” = Gate Locked “06” = Savage Dog “07” = Meter Changed “08” = Refused Access “09” = Locked & No Answer “00” = Other "10" = Delayed Read “11” = Adjustment Read “12” = Damaged Meter “13” = Dial out of Alignment

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					“14” = Key Required “15” = Access Overgrown "16" = Hi/Low Failure "17" = Meter Capacity Failure

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Estimation_Substitution_Type	Estimation/Substitution Type	Indicator identifying the type of estimation/substitution applied.	String	2	"E1" = Estimation method 1 "E2" = Estimation method 2 "E3" = RB/DB agreed value "S1" = Substitution method 1 "S2" = Substitution method 2 "S3" = RB/DB agreed substituted value
Expected_MHQ	Expected MHQ	In relation to tariff "D" DUoS charges, the highest Maximum Hour Quantity expected in the calendar year.	Numeric	9,4	
Excluded_Service_Charge	Excluded Service Charge (GST exclusive)	Calculated excluded service charge, excluding GST	Numeric	11,2	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Excluded_Services_Code	Excluded Services Code	Based on each Distributor's codes, used to indicate type of service.	String	10	
Fixed_Charge	Fixed Charge (GST exclusive)	In relation to tariff "V" DUoS charges, the daily fixed charge multiplied by the number of days in the billing period. This amount is GST Exclusive.	Numeric	11,2	
Flat_Or_Unit_Number	Flat Or Unit Number (Address Elements)	Defines the flat or unit number as per Australian Standard AS4590	String	7	
Flat_Or_Unit_Type	Flat Or Unit Type (Address Elements)	Defines the type of flat or unit as per Australian Standard AS4590	String	4	See Address elements
Floor_Or_Level_Number	Floor Or Level Number (Address Elements)	Defines the floor or level number as per Australian Standard AS4590	String	5	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Floor_Or_Level_Type	Floor Or Level Type (Address Elements)	Defines the floor or level type as per Australian Standard AS4590	String	2	See Address elements
Gas_Meter_Number	Gas Meter Number	Number located on the gas meter.	String	12	
Gas_Meter_Units	Gas Meter Units	Identifies the unit of measure that pertains to the gas meter	String	1	"I" = Imperial "M" = Metric
GST_Inclusive_Amount_Paid	GST Inclusive Amount Paid	Amount paid (inclusive of GST)	Numeric	11,2	
GST_Amount	GST Amount GST Amount Paid	GST applicable to calculated excluded service charge or GST amount applicable to transaction	Numeric	11,2	
Hi_Low_Failure	Hi/Low Failure	A code that indicates whether the meter reader has input a meter reading that was outside	String	1	"Y" = Yes "N" = No

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		the predetermined tolerance range			
House_Number_1	House Number (Address Elements)	Defines the house number as per Australian Standard AS4590	String	5	
House_Number_2					
House_Number_Suffix_1	House Number Suffix (Address Elements)	Defines the house number suffix as per Australian Standard AS4590	String	1	
House_Number_Suffix_2					
Invoice_Number	Invoice Number	Invoice number the line relates to.	String	20	
Last_Modified_Date_Time	N/A	A timestamp that may be used by an application to determine whether the supplied data is the latest information	DateTime	25	ccyy-MM-ddThh:mm:ss+hh:mm
Last_Read_Date	Last Read Date	Date to which a Retailer has recorded energy on this supply point	Date	10	ccyy-MM-dd

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Line_Description	Line Descrption	Line description that contains details of charge.	String	80	
Local_Capacity_Expiry_Date	Local Capacity Expiry Date	Date that the Local Capacity Charge will expire is part of the standing data request	Date	10	ccyy-MM-dd
Location_Description	Location Descriptor (Address Elements)	Defines the location descriptor as per Australian Standard AS4590. This is a catch all field for non-standard address information	String	30	
Lot_Number	Lot Number (Address Elements)	Defines the lot number as per Australian Standard AS4590	String	6	
Mail_ Address_Line_1	Mail_ Address_Line_1	Contains formatted postal address details	String	80	
Mail_ Address_Line_2	Mail_ Address_Line_2	Contains formatted postal address details	String	80	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Mail_ Address_Line_3	Mail_ Address_Line_3	Contains formatted postal address details	String	80	
Max_MHQTP	Max MHQTP (This Period)	In relation to tariff "D" DUoS charges, the highest actual Maximum Hour Quantity recorded in this period (month).	Numeric	9,4	Unit of measure is Gj/hr
Max_MHQTY	Max MHQTY (This Year)	In relation to tariff "D" DUoS charges, the highest actual Maximum Hour Quantity recorded for the year to date.	Numeric	9,4	Unit of measure is Gj/hr
Meter_Capacity_Failure	Meter Capacity Failure	A code that indicates whether the reading was outside the predetermined tolerance range	String	1	“Y” = Yes “N” = No
Meter_Status	Meter Status	Field that confirms if a disconnection has taken place. Meter Disconnection by Retailer notification to Distributor.	String	10	“Turned on” “Turned off” “Plugged” = Meter is disconnected

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					"No meter"
Movement_ Type	Movement_ Type	A code that indicates the customer details update status“MI” = Move In“MO” = Move Out“UP” = Update	String	2	“MI” = Move In “MO” = Move Out “UP” = Update
GST_Exclusive_Amount_Paid	GST Exclusive Amount Paid	Amount paid (exclusive of GST)	Numeric	11,2	
Network_Tariff_Code	Network Tariff Code	A description of the Network's Tariff (as gazetted by the Regulator). Tariff may be for standing charges, demand, etc.	String	10	
Next_Scheduled_Read_Date	Next Scheduled Read Date	According to the Meter Reading Schedule the next date on which the Meter is planned to be read.	Date	10	ccyy-MM-dd
NMI	MIRN	Meter Installation Registration Number. Unique number	String	10	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		allocated by the Distributor that identifies the Supply Point.			
NMI_Checksum	MIRN Checksum	Is a number calculated by an algorithm for validation puposes	Integer	1	
Old_Transaction_ID	Old Transaction ID	A reference to a previous transaction where the current transaction reverses an old transaction.	String	17	
Old_Invoice_Number	Old Invoice Number	A reference to a previous invoice for a reversal transaction.	String	20	
Paid_Date	Paid Date	Payment Date	Date	10	ccyy-MM-dd
Person_Name_Title	Person_Name_Title	Contains customer's title	String	12	
Person_Name_Given	Person_Name_Given	Contains customer's first name	String	40	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Person_Name_Family	Person_Name_Family	Contains customer's surname, required if Business_Name is not populated	String	40	
Planned_Outage_Date	Planned Outage Commencement Date	In relation to a planned Mains Renewal the date on which the Mains renewal is to occur.	Date	10	ccyy-MM-dd
Planned_Outage_Time	Planned Outage Commencement Time	In relation to a planned Mains Renewal the time on which the Mains renewal is scheduled to begin.	Time	8	hh:mm:ss
Postcode	Site Address Postcode (Address Elements)	Defines the postcode as per Australian Standard AS4590	String	4	
Pressure_Correction_Factor	Pressure Correction Factor	Pressure Correction Factor applied to calculate gas flow.	Numeric	6,4	
Previous_Index_Value	Previous Index Value	The reading prior to the current index value stored on the database.	Numeric	7,0	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Previous_Read_Date	Previous Read Date	The date on which the Previous Index Value was read.	Date	10	ccyy-MM-dd
Proposed_Meter_Change_End_Date	Proposed Meter Change End Date	The end date the Distributor may perform the Meter Change as part of the Time Expired Meter Change program.	Date	10	ccyy-MM-dd
Proposed_Meter_Change_Start_Date	Proposed Meter Change Start Date	The start date the Distributor may perform the Meter Change as part of the Time Expired Meter Change program.	Date	10	ccyy-MM-dd
Quantity	Quantity	Number of charges (e.g. multiple truck visits)	Numeric	5,0	
Rate	Rate	The Rate of the Excluded Service Charge	Numeric	9,5	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
RB_Reference_Number	RB Reference Number	A unique reference number assigned to individual work requests raised by the RB.	String	10	
RDM	RDM (Reading Days this month)	In relation to tariff "D" DUoS charges, the number of reading days in the period (month).	Numeric	3,0	
RDY	RDY (Reading Days in the Year)	In relation to tariff "D" DUoS, the number of reading days for the year (365 or 366).	Numeric	3,0	
Reading_Day_Change_Effective_Date	Reading Day Change Effective Date	The date in which the new Schedule is effective from	Date	10	ccyy-MM-dd
Reason_for_Read	Meter Read Reason Code	What type of Special Read is to be performed.	String	3	“SRF” = Special Final Read, “SRR” = Special Reference Read, “SRA” = Special Account Investigation,

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
					“SRD” = Special Disconnection “SRT” = Special Transfer Read "SCH" = Schedule Cycle Read "INI" = Meter Installation Read "REM" = Meter Remove "OSO" = Other Service Order "MDV" = Meter Data Verify (residual)
Resolution_Date	Date of Resolution	Date of dispute resolution	Date	10	ccyy-MM-dd
Scheduled_Reading_Day_Number	Scheduled Reading Day Number	In relation to a Meter Reading Route Schedule change the	String	2	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		day number on which the meter will be read.			
Service_Date	Service Date	The date the Excluded Service Charge occurred	Date	10	ccyy-MM-dd
Sensitive_ Load_ Flag	Sensitive_ Load_ Flag	A code that indicates whether the Retailer classifies the supply point as a sensitive load“Y” = Yes“N” = No	String	1	“Y” = Yes “N” = No
State_Or_Territory	Site Address State (Address Elements)	Defines the state as per Australian Standard AS4590	String	3	“AAT”, “ACT”, “NSW”, “NT”, “QLD”, “SA”, “TAS”, “VIC”, “WA”
Street_Name_1	Street Name (Address Elements)	Defines the street name as per Australian Standard AS4590	String	30	
Street_Name_2					
Street_Suffix_1	Street Suffix (Address Elements)	Defines the street suffix as per Australian Standard AS4590	String	2	See Address elements
Street_Suffix_2					

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Street_Type_1	Street Type (Address Elements)	Defines the street type as per Australian Standard AS4590	String	4	See Address elements
Street_Type_2					
Suburb_Or_Place_Or_Locality	Site Address City (Address Elements)	Defines the suburb or locality as per Australian Standard AS4590	String	46	
Total	Total (GST exclusive)	In relation to tariff "V" DUoS charges the sum of the variable peak, variable off peak, and fixed charges for this period. This amount is GST Exclusive.	Numeric	11,2	
Transaction_ID	Transaction Identifier	Unique transaction or line identifier. This has the effect of ensuring that each charge is uniquely referenced, enabling effective B2B communication of disputes,etc.	String	17	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
Transaction_Date	Transaction Date	Date this invoice line was created in the Source system. In the case of a cancellation, the transaction date is the date the transaction is cancelled rather than date of the original transaction.	Date	10	ccyy-MM-dd
Type_of_Read	Type of Read	Indicator identifying the type of reading which has taken place.	String	1	“A” = Actual, “E” = Estimated “S” = Substituted “C” = Customer Own Read.
Variable_Off_Peak	Variable Off Peak (GST exclusive)	In relation to tariff "V" DUoS charges, the variable off peak charge in the billing period. This amount is GST Exclusive.	Numeric	11,2	
Variable_Peak	Variable Peak (GST exclusive)	In relation to tariff "V" DUoS charges, the variable peak	Numeric	11,2	

CSV ELEMENT NAME	ELEMENT NAME	DESCRIPTION	ATTRIBUTES/FORMAT	LENGTH/ DECIMAL PLACES	ALLOWED VALUES
		charge in the billing period. This amount is GST Exclusive.			
Volume_Flow	Volume Flow	Volume Flow is calculated by subtracting the Previous Index Value from the Current Index Value. A factor of 2.832 is applied to convert imperial registering Meters	Numeric	11,2	Cubic Metres
Work_Request_Number	Work Request Number	Unique reference number that the Distributor assigns to the work for tracking and auditing purposes.	String	15	

Appendix B. aseXML Standard Event Codes

The aseXML Standard Event Codes are listed in Appendix B of the Interface Definitions document provided in Build Pack 2.

Appendix C. Gas FRC Application Event Codes

The following Gas FRC B2B specific aseXML event codes shall apply to Gas FRC communications.

Restricting the application of Event Codes to the nominated invoking transaction only applies to those aseXML transactions specified at market start (October 2002). The Market Start transactions are:

MARKET START TRANSACTION
AccountCreationNotification
AmendMeterRouteDetails
MeterDataHistoryRequest
MeterDataNotification
MeterDataVerifyRequest
MeterDataVerifyResponse
NMIDiscoveryRequest
NMIDiscoveryResponse
NMIStandingDataRequest
NMIStandingDataResponse
ServiceOrderRequest
ServiceOrderResponse
SpecialReadRequest
SpecialReadResponse

Any new aseXML transactions introduced after Market Start can use any of the Event Codes listed below.

GROUP	CODE	DESCRIPTION	SEVERITY	INVOKING TRANSACTION
B2B	3601	Action Type invalid	Error	ServiceOrderRequest SpecialReadRequest
(3600–3799)	3602	Recipient did not initiate Request	Error	ServiceOrderResponse (Note: Not applicable for DB initiated Service Orders) SpecialReadResponse , NMIStandingDataResponse, NMIDiscoveryResponse, MeterDataVerifyResponse
	3603	Recipient is not responsible for the supplied MIRN	Error	all
	3604	MIRN not provided, but mandatory for the Enquiry Code in transaction	Error	ServiceOrderRequest
	3606	Address not found	Error	NMIDiscoveryRequest
	3608	Address outside DB area	Error	ServiceOrderRequest, NMIDiscoveryRequest
	3609	ServiceOrderNumber not provided, but mandatory	Error	ServiceOrderResponse
	3610	RBReferenceNumber invalid	Error	ServiceOrderResponse MeterDataNotification
	3613	Appointment Date must not be earlier than transaction date	Warning	ServiceOrderRequest, SpecialReadRequest
	3616	Customer Characterisation not provided, but mandatory for supplied Enquiry Code	Error	ServiceOrderRequest

GROUP	CODE	DESCRIPTION	SEVERITY	INVOKING TRANSACTION
	3617	Load Details/Hour not provided, but mandatory for supplied Enquiry Code	Error	ServiceOrderRequest
	3618	Meter Inlet Pressure not provided, but mandatory for supplied Enquiry Code	Error	ServiceOrderRequest
	3619	Required certification details not provided	Error	ServiceOrderRequest
	3622	DateServiceOrderCompleted cannot be prior to initial Service request	Warning	ServiceOrderResponse
	3624	Invalid Removed MeterSerialNumber	Error	ServiceOrderResponse
	3625	Invalid Removed MeterReadIndexValue	Warning	ServiceOrderResponse
	3626	Invalid New MeterSerialNumber	Warning	ServiceOrderResponse
	3627	Invalid Pressure Correction Factor	Warning	ServiceOrderResponse, MeterDataNotification
	3628	Invalid MeterTypeSizeCode	Warning	ServiceOrderResponse
	3629	Invalid New MeterReadIndexValue	Warning	ServiceOrderResponse
	3630	Invalid NextScheduledReadDate	Warning	ServiceOrderResponse
	3631	NextScheduledReadDate cannot be in past	Warning	ServiceOrderResponse
	3632	Invalid ScheduledReadingDayNumber	Warning	ServiceOrderResponse

GROUP	CODE	DESCRIPTION	SEVERITY	INVOKING TRANSACTION
	3633	Invalid Current MeterRead IndexValue	Warning	ServiceOrderResponse
	3634	DateOfAttemptedAccess cannot be in future	Error	ServiceOrderResponse
	3635	Invalid JobCompletionCode1	Error	ServiceOrderResponse
	3636	Invalid JobCompletionCode2	Error	ServiceOrderResponse
	3637	Invalid JobCompletionCode3	Error	ServiceOrderResponse
	3638	MIRN is de-registered	Error	NMIStandingDataRequest, NMIDiscoveryRequest
	3639	Greater than 99 matches found or second pass response provided	Error	NMIDiscoveryRequest*
	3642	Invalid Date Range	Error	MeterDataHistoryRequest
	3644	New request with previously used RB Reference Number	Error	SpecialReadRequest, ServiceOrderRequest
	3646	No Read for Read Date Specified	Error	MeterDataVerifyRequest
	3647	Incorrect Index for Date Specified	Warning	MeterDataVerifyRequest
	3648	Incorrect Previous Read Date	Warning	MeterDataNotification
	3649	Incorrect Previous Index Value	Warning	MeterDataNotification
	3650	Incorrect Average Heating Value	Warning	MeterDataNotification
	3651	Incorrect Consumption Calculation	Warning	MeterDataNotification

GROUP	CODE	DESCRIPTION	SEVERITY	INVOKING TRANSACTION
	3652	Estimate on Special Read (not applicable to final reads)	Error	MeterDataNotification
	3653	Incorrect NSRD	Warning	MeterDataNotification
	3654	Incorrect Gas_Meter_Number	Warning	MeterDataNotification
	3655	No Actual Read for 12 months	Warning	MeterDataNotification
	3657	Duplicate Read	Error	MeterDataNotification
	3658	RB Reference Number Missing for Special Read	Warning	MeterDataNotification
	3659	Unrecognised Event Code	Warning	all
	3660	MIRN is not a gas meter	Error	NMIStandingDataRequest, NMIDiscoveryRequest
	3662	MIRN checksum invalid	Error	all
	3665	RecordCount element does not match number of records in CSV file	Error	All transactions containing CSV files
	3666	Data does not match the CSV format definition	Error	All transactions containing CSV files
	3667	Address supplied is not valid	Error	AmendMeterRouteDetails(CSVAmendSiteAddressDetails)
	3668	Invalid Customer Characterisation	Error	AmendMeterRouteDetails(CSVAmendSiteAddressDetails)
	3669	Invalid Scheduled_Reading_Day_Number	Warning	AccountCreationNotification
	3670	Missing mandatory CSV field	Error	All transactions containing CSV files

GROUP	CODE	DESCRIPTION	SEVERITY	INVOKING TRANSACTION
	3671	Proposed index value or date missing (one supplied without the other)	Error	MeterDataVerifyRequest
	3672	Invalid data in CSV record	Error	All transactions containing CSV files
	3673	Invalid data in aseXML field	Error	All
	3674	Data in CSV record ignored	Warning	All transactions containing CSV files
	3675	Unable to cancel request	Error	ServiceOrderRequest, SpecialReadRequest
	3676	Estimated read replacing actual read (Note – this event code is not applicable if the read is tagged as an adjusted read)	Error	MeterDataNotification
	3677	Updated details not valid	Error	AmendMeterRouteDetails
	3678	Special Read Reason Code invalid for gas	Error	SpecialReadRequest
	3679	Inappropriate Type of Read for Reading Reason	Error	MeterDataNotification
	3680	Multiple MIRNs returned	Error	NMIDiscoveryRequest*

* This error will appear in the response transaction.

Note – The guiding principle is that event codes should generally be returned in transaction acknowledgments. For those CSV based transactions that have a specific response transaction some event codes may be returned in the response transaction instead.

Appendix D. Table of Transactions Cross-Reference

The following table cross-references transactions defined in Ref.[3] to the aseXML transactions that realise the former. At the same time, the table indicates whether the transaction description is included in the current document (PBP3), in PBP2 (Ref.[9]), is part of MIBB update or a manual process. “N/A” in this column indicates that the transaction is not applicable in the context of this document. The last column in this table named “Section Reference” contains cross-references to the sections of this document, so that the user can jump straight to the description of the particular transaction.

TABLE OF TRANSACTIONS			**ASEXML**		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
1		Internal	N/A	N/A	N/A
2		Internal	N/A	N/A	N/A
3	Special Read Request	B2B	SpecialReadRequest	3	4.1.6.1
3A	Special Read Request Response	B2B	SpecialReadResponse	3	4.1.6.2
4		Internal	N/A	N/A	N/A
5		Internal	N/A	N/A	N/A
6	Special Read Request No Access advice	B2B	SpecialReadResponse	3	4.1.6.2
7		Internal	N/A	N/A	N/A
8		Internal	N/A	N/A	N/A
9	Energy Flow for Special Read (note: - Not a Customer Transfer Request)	B2B	MeterDataNotification	3	4.1.2.1
9A	Energy Flow for Special Read (note: - Not a Customer Transfer Request) Response	B2B	MeterDataResponse	3	4.1.2.2
10	AEMO Customer Transfer Special Read notification	B2M	MeterDataNotification	2	4.2.2.2
10A	AEMO Customer Transfer Special Read confirmation	M2B	MeterDataResponse	2	4.2.2.3
11	Replaced with 10A	M2B			
12	Account creation transaction.	B2B	AccountCreationNotification	3	4.1.8.1
13	Energy Flow for Special Read for a Customer Transfer	B2B	MeterDataNotification	3	4.1.2.1

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
13A	Energy Flow for Special Read for a Customer Transfer Response	B2B	MeterDataResponse	3	4.1.2.2
14		Internal	N/A	N/A	N/A
15	Disconnection Read	B2B	MeterReadInputNotification	3	4.1.4.1
16		Internal	N/A	N/A	N/A
17	Energy Flow for Disconnection Read	B2B	MeterDataNotification	3	4.1.2.1
17A	Energy Flow for Disconnection Read Response	B2B	MeterDataResponse	3	4.1.2.2
25		Internal	N/A	N/A	N/A
26		Internal	N/A	N/A	N/A
27		Internal	N/A	N/A	N/A
28		Field Work	N/A	N/A	N/A
29			N/A	N/A	N/A
30		Internal	N/A	N/A	N/A
31	Customers Own Read by Phone	B2B	MeterReadInputNotification	3	4.1.4.1
31A	Energy Flow for Customers Own Read	B2B	MeterDataNotification	3	4.1.2.1
31B	Energy Flow for Customers Own Read Response	B2B	MeterDataResponse	3	4.1.2.2
32	Customers Own Read by Mail	Internal	N/A	N/A	N/A
33		Internal	N/A	N/A	N/A
34		Internal	N/A	N/A	N/A
35		Internal	N/A	N/A	N/A
36		Internal	N/A	N/A	N/A
37		Internal	N/A	N/A	N/A
39	Heating Value for the day	M2B	N/A	MIBB	N/A

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
41	Energy Flow for Schedule or Special Read	B2B	MeterDataNotification	3	4.1.2.1
41A	Energy Flow for Schedule or Special Read Response	B2B	MeterDataResponse	3	4.1.2.2
42	Energy Flow from a 2nd Tier Site for AEMO for a Special Read or Schedule read	B2M	MeterDataNotification	2	4.2.2.2
42A	Response to Energy Flow from a 2nd Tier Site for AEMO for a Special Read or Schedule read	M2B	MeterDataResponse	2	4.2.2.3
43		Internal	N/A	N/A	N/A
44		Internal	N/A	N/A	N/A
45	Energy History Request	B2B	N/A	Manual process	N/A
46	Energy History Response	B2B	N/A	Manual process	N/A
47	Request for History	M2B	N/A	Manual process	4.3.2.1
48	Energy History Response	B2M	MeterDataNotification	2	4.3.2.2
49	Retailer requesting missing meter reading data	B2B	MeterDataMissingNotification	3	4.1.3.1
50	Energy Flow for Missing Reads	B2B	MeterDataNotification	3	4.1.2.1
50A	Energy Flow for Missing Reads Response	B2B	MeterDataResponse	3	4.1.2.2
51	Energy Flow for an Estimate Read	B2B	MeterDataNotification	3	4.1.2.1
51A	Energy Flow for an Estimate Read Response	B2B	MeterDataResponse	3	4.1.2.2
52	Energy Flow which is for 2nd Tier Site that has been Estimated.	B2M	MeterDataNotification	2	4.2.2.2
52A	Response to Energy Flow which is for 2nd Tier Site that has been Estimated	M2B	MeterDataResponse	2	4.2.2.3

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
53	Energy Flow for a Substituted Read	B2B	MeterDataNotification	3	4.1.2.1
53A	Energy Flow for a Substituted Read Response	B2B	MeterDataResponse	3	4.1.2.2
54	Energy Flow which is for 2nd Tier Site that has been Subsituted	B2M	MeterDataNotification	2	4.2.2.2
54A	Response to Energy Flow which is for 2nd Tier Site that has been Subsituted	M2B	MeterDataResponse	2	4.2.2.3
56		M2B	N/A	MIBB	N/A
57	Heating Value for the day	M2B	N/A	MIBB	N/A
65		Internal	N/A	N/A	N/A
66	Meter Site Access Information Change from RB	B2B	AmendMeterRouteDetails	3	4.4.2**Error! Reference source not found.**
67	Meter Site Access Information Change from DB	B2B	AmendMeterRouteDetails	3	4.4.2
68	Supply Point Information	B2B	AmendMeterRouteDetails	3	4.4.2
69	Address Information Change from DB	B2B	AmendMeterRouteDetails	3	4.4.2
70	Amend Customer Contact Details	B2B	AmendMeterRouteDetails	3	4.6.2.1
71	Amend Customer Contact Details (six monthly refresh)	Internal	N/A	N/A	N/A
72	Update to Meter Route	Internal	N/A	N/A	N/A
73		Internal	N/A	N/A	N/A
74	Annual Meter Reading Schedule	B2B	N/A	Manual process	N/A
75	Meter Reading Route Change	B2B	AmendMeterRouteDetails	3	4.4.2
80	LifeSupportNotification	B2B	LifeSupportNotification	3	4.7.2
81	LifeSupportNotification	B2B	LifeSupportNotification	3	4.7.2

Commented [DM9]: Updated post PPC. See Ref # 55 attachment F of IIR

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
82	LifeSupportRequest	B2B	LifeSupportRequest	3	4.7.3
83	LifeSupportRequest	B2B	LifeSupportRequest	3	4.7.3
85		Internal	N/A	N/A	N/A
86		Internal	N/A	N/A	N/A
87	Meter Fix request "A" or "B" type	B2B	ServiceOrderRequest	3	4.2.2.1
87A	Meter Fix request "A" or "B" type Response	B2B	ServiceOrderResponse	3	4.2.2.2
88		Internal	N/A	N/A	N/A
89		Internal	N/A	N/A	N/A
90		Internal	N/A	N/A	N/A
91		Internal	N/A	N/A	N/A
92	Meter Fix completed	B2B	ServiceOrderResponse	3	4.2.2.2
93	No Access to complete Meter Fix	B2B	ServiceOrderResponse	3	4.2.2.2
94	AEMO Meter Fix notification	B2M	GasMeterNotification/MeterFix	2	4.4.2.1
100		Internal	N/A	N/A	N/A
101	Meter Change Request	B2B	ServiceOrderRequest	3	4.2.2.1
101A	Meter Change Request Response	B2B	ServiceOrderResponse	3	4.2.2.2
102		Field Work	N/A	N/A	N/A
103		Field Work	N/A	N/A	N/A
104	No Access to complete Meter Change	B2B	ServiceOrderResponse	3	4.2.2.2
105		Field Work	N/A	N/A	N/A
106		Field Work	N/A	N/A	N/A

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
107		Internal	N/A	N/A	N/A
108	Meter Change Completed	B2B	ServiceOrderResponse	3	4.2.2.2
120	Request Basic Meter Upgrade	B2B	N/A	Manual process	N/A
121	Quote for Upgrade of Basic Meter	B2B	N/A	Manual process	N/A
122	Accept quote for Basic Meter Upgrade	B2B	N/A	Manual process	N/A
123		Field Work	N/A	N/A	N/A
124		Field Work	N/A	N/A	N/A
125	Meter Upgrade Completed RB Advice	B2B	ServiceOrderResponse	3	4.2.2.2
126	Meter Upgrade Completed AEMO advice	B2M	N/A	Manual Process	N/A
135		Internal	N/A	N/A	N/A
136					
137		Field Work	N/A	N/A	N/A
138		Field Work	N/A	N/A	N/A
150		Internal	N/A	N/A	N/A
151	Meter Removal Request	B2B	ServiceOrderRequest	3	4.2.2.1
151A	Meter Removal Request Response	B2B	ServiceOrderResponse	3	4.2.2.2
152		Field Work	N/A	N/A	N/A
153		Field Work	N/A	N/A	N/A
154	No Access to complete Meter Removal	B2B	ServiceOrderResponse	3	4.2.2.2

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
155		Field Work	N/A	N/A	N/A
156		Field Work	N/A	N/A	N/A
157	Meter Removal Completed	B2B	ServiceOrderResponse	3	4.2.2.2
158	MIRN Status Update Notification	B2M - Real Time or Batch	GasMeterNotification/MIRNStatusUpdate	2	4.4.3.1
170	Transfer Request	B2M	CATSChangeRequest	2	4.1.2.1
170A	Transfer Response	M2B	CATSChangeResponse	2	4.1.3.2
171	Validation Check	Internal	N/A	N/A	N/A
172	Validation Check	Internal	N/A	N/A	N/A
173	Validation Check	Internal	N/A	N/A	N/A
174	Validation Check	Internal	N/A	N/A	N/A
175	Validation Check	Internal	N/A	N/A	N/A
176	Validation Check	Internal	N/A	N/A	N/A
177	Validation Check	Internal	N/A	N/A	N/A
178	Validation Check	Internal	N/A	N/A	N/A
179	Validation Check	Internal	N/A	N/A	N/A
180	Validation Check	Internal	N/A	N/A	N/A
181	Request for Data	M2B	CATSDataRequest	2	4.1.3.3
182	Request for Data	B2M	CATSChangeRequest	2	4.1.4.1
182A	Response to Standing Data Request	M2B	CATSChangeResponse	2	4.1.4.2
183	Notice of Transfer	M2B	CATSNotification	2	4.1.3.1
184	Notice of Transfer	M2B	CATSNotification	2	4.1.3.1
185	Notice of Transfer	M2B	CATSNotification	2	4.1.3.1
186	Transfer Notice	M2B	CATSNotification	2	2.2

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
187	Objection	B2M	CATSObjectionRequest	2	4.1.7.1
187A	Objection Response	M2B	CATSObjectionResponse	2	4.1.7.2
188	Validation Check	Internal Validation	N/A	N/A	N/A
189	Validation Check	Internal Validation	N/A	N/A	N/A
190	Validation Check	Internal Validation	N/A	N/A	N/A
191	Withdrawal of Objection	B2M	CATSObjectionWithdrawal	2	4.1.8.1
192	Validation Check	Internal Validation	N/A	N/A	N/A
193	Objection Notification or Objection Withdrawal Notification	M2B	CATSNotification	2	4.1.8.2
194	Objection Notification or Objection Withdrawal Notification	M2B	CATSNotification	2	4.1.8.2
195	Objection Notification or Objection Withdrawal Notification	M2B	CATSNotification	2	2.2
195A	Objection Notification or Objection Withdrawal Notification	M2B	CATSNotification	2	4.1.8.2
196	Transfer Cancellation	M2B	CATSNotification	2	4.1.10.1
197	Transfer Cancellation	M2B	CATSNotification	2	4.1.10.1
198	Transfer Cancellation	M2B	CATSNotification	2	4.1.10.1
199	Transfer Cancellation	M2B	CATSNotification	2	2.2
200	Problem Notice	B2M	CATSChangeAlert	2	4.1.11.1
201	Problem Notice	B2M	CATSChangeAlert	2	2.2
202	Problem Notice	B2M	CATSChangeAlert	2	4.1.11.1

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
203	Problem Notice	B2M	CATSChangeAlert	2	4.1.11.1
204	Problem Notice	M2B	CATSChangeAlert	2	4.1.11.1
205	Withdrawal Transfer Notice	B2M	CATSChangeWithdrawal	2	4.1.9.1
206	Withdrawal Transfer Notice	M2B	CATSNotification	2	4.1.9.2
206A	Withdrawal Transfer Notice	M2B	CATSNotification	2	4.1.9.2
207	Withdrawal Transfer Notice	M2B	CATSNotification	2	4.1.9.2
208	Withdrawal Transfer Notice	M2B	CATSNotification	2	4.1.9.2
209	Withdrawal Transfer Notice	M2B	CATSNotification	2	2.2
210	Notice of Read Failure	M2B	CATSDataRequest	2	4.1.6.1
211	Notice of Read Failure	M2B	CATSDataRequest	2	4.1.6.1
212	Notice of Read Failure	M2B	CATSDataRequest	2	4.1.6.1
213	Notice of Read Failure	M2B	CATSDataRequest	2	2.2
214	New Transfer Date	B2M	CATSChangeRequest	2	4.1.5.1
214A	Response to Alternative Transfer Date Request	M2B	CATSChangeResponse	2	4.1.5.3
215	Validation Check	Internal Validation	N/A	N/A	N/A
216	Validation Check	Internal Validation	N/A	N/A	N/A
217	Validation Check	Internal Validation	N/A	N/A	N/A
218	Validation Check	Internal Validation	N/A	N/A	N/A
219	New Transfer Date	M2B	CATSNotification	2	4.1.5.2
220	New Transfer Date	M2B	CATSNotification	2	4.1.5.2
221	New Transfer Date	M2B	CATSNotification	2	2.2
222	Transfer Termination Notice	M2B	CATSNotification	2	4.1.10.1

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
223	Transfer Termination Notice	M2B	CATSNotification	2	4.1.10.1
224	Transfer Termination Notice	B2M	CATSNotification	2	4.1.10.1
225	Transfer Termination Notice	M2B	CATSNotification	2	2.2
226	Notice of Transfer	M2B	CATSNotification	2	4.1.13.1
227	Notice of Transfer	M2B	CATSNotification	2	4.1.13.1
228	Notice of Transfer	M2B	CATSNotification	2	4.1.13.1
229	Notice of Transfer	M2B	CATSNotification	2	4.1.13.1
230	Notice of Transfer	M2B	CATSNotification	2	2.2
231	Account creation transaction.	B2B	AccountCreationNotification	3	4.1.8.1
232	Transfer Status Update	M2B	CATSNotification	2	4.1.12.1
233	Transfer Status Update	M2B	CATSNotification	2	4.1.12.1
234	Transfer Status Update	M2B	CATSNotification	2	4.1.12.1
235	Transfer Status Update	M2B	CATSNotification	2	4.1.12.1
240		Internal	N/A	N/A	N/A
241		Internal	N/A	N/A	N/A
242	Meter Data Verification	B2B	MeterDataVerifyRequest	3	4.1.7.1
243	Meter Data Verification	B2B	MeterDataVerifyResponse	3	4.1.7.2
244		B2B - Real Time	N/A	N/A	N/A
245			N/A	N/A	N/A
246	Energy Flow Adjustment for RB	B2B	MeterDataNotification	3	4.1.2.1
246A	Energy Flow Adjustment for RB Response	B2B	MeterDataResponse	3	4.1.2.2
247	Energy Flow Adjustment for AEMO	B2M	MeterDataNotification	2	4.2.2.2
247A	Response to Energy Flow Adjustment for AEMO	M2B	MeterDataResponse	2	4.2.2.3

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
260	Provision of Energy Data	B2M	MeterDataNotification	2	4.2.2.2
260A	Response to Provision of Energy Data	M2B	MeterDataResponse	2	4.2.2.3
261	Non-provision of Energy Data	M2B	MeterDataMissingNotification	2	4.2.2.1
262	Provision of Missing Energy Data	B2M	MeterDataNotification	2	4.2.2.2
262A	Response to Provision of Missing Energy Data	M2B	MeterDataResponse	2	4.2.2.3
263	Provision of Revised Energy Data	B2M	MeterDataNotification	2	4.2.2.2
263A	Response to Provision of Revised Energy Data	M2B	MeterDataResponse	2	4.2.2.3
264	Refresh of BL & TSF	B2M	NMIStandingDataUpdateNotification	2	4.3.3.1
264A	Refresh of BL & TSF Response	M2B	NMIStandingDataUpdateResponse	2	4.3.3.2
265		M2B	N/A	MIBB	N/A
266		M2B	N/A	MIBB	N/A
267		M2B	N/A	MIBB	N/A
280	Discovery request	B2B	NMIDiscoveryRequest	3	4.3.2.2
			NMIStandingDataRequest	3	4.3.2.5
281	MIRN Standing Data	B2B	NMIDiscoveryResponse	3	4.3.2.3**Error! Reference source not found.**
			NMIStandingDataResponse	3	4.3.2.6
284	MIRN Additional Data	B2B	NMIDiscoveryResponse	3	4.3.2.3
			NMIStandingDataResponse	3	4.3.2.6
285	MIRN Discovery Assistance	B2B	N/A	Manual process	N/A

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
286	Updating of MIRN database	Internal	N/A	N/A	N/A
287	Allocation of numbers for MIRNS	M2B	N/A	Manual Process	N/A
288	Assign MIRN to new sites	Internal	N/A	N/A	N/A
289	Standing Data Change from DB	B2B	N/A	Manual process	N/A
295	Allocation of MIRNS new transmission sites	Internal	N/A	N/A	N/A
296	Notification of MIRN for new transmission supply point	B2M	N/A	Manual Process	N/A
297	Notification of MIRN for new transmission supply point	M2B	N/A	Manual Process	N/A
310	Service Connection requests	B2B	ServiceOrderRequest	3	4.2.2.1
310A	Service Connection requests Response	B2B	ServiceOrderResponse	3	4.2.2.2
311	Service Connection Complete	B2B	ServiceOrderResponse	3	4.2.2.2
312	Service Disconnection Request	B2B	ServiceOrderRequest	3	4.2.2.1
312A	Service Disconnection Request Response	B2B	ServiceOrderResponse	3	4.2.2.2
313	Service Disconnection Complete	B2B	ServiceOrderResponse	3	4.2.2.2
314	Service Orders for Priority C-K	B2B	ServiceOrderRequest	3	4.2.2.1
314A	Service Orders for Priority C-K Response	B2B	ServiceOrderResponse	3	4.2.2.2
315	Service Orders Completed for Priority A-K	B2B	ServiceOrderResponse	3	4.2.2.2
316	Relocate Service Connection request	B2B	ServiceOrderRequest	3	4.2.2.1
316A	Relocate Service Connection request Response	B2B	ServiceOrderResponse	3	4.2.2.2
317	Relocate Service Complete	B2B	ServiceOrderResponse	3	4.2.2.2

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
318	Upgrade Service Size request	B2B	ServiceOrderRequest	3	4.2.2.1
318A	Upgrade Service Size request Response	B2B	ServiceOrderResponse	3	4.2.2.2
319	Upgrade Service Size Complete	B2B	ServiceOrderResponse	3	4.2.2.2
320	Upgrade Meter Size request	B2B	ServiceOrderRequest	3	4.2.2.1
320A	Upgrade Meter Size request Response	B2B	ServiceOrderResponse	3	4.2.2.2
321	Upgrade Meter Size Complete	B2B	ServiceOrderResponse	3	4.2.2.2
331	Network Duos billing details (Tariff V)	B2B	NetworkDUoSBillingNotification	3	4.5.2.1
332	Network Duos billing details (Tariff D)	B2B	NetworkDUoSBillingNotification	3	4.5.2.1
333	Meter Range Updates	B2B	N/A	Manual process	N/A
335	Tariff D DOuS from AEMO to Distributor	M2B	N/A	Manual process	N/A
336	DB CTM data	M2B	N/A	Manual process	N/A
337	Retailer Churn	M2B	N/A	Manual process	N/A
338	Number of Metered Supply Points	B2M	MeteredSupplyPointsCountUpdate	2	4.3.4.1
350	Network DUoS Billing Details (Excluded Services)	B2B	NetworkDUoSBillingNotification	3	4.5.2.1
351	Network DUoS Billing Details (Dispute Notification)	B2B	NetworkDUoSBillingNotification	3	4.5.2.1
352	Network DUoS Billing Details (Dispute Resolution)	B2B	NetworkDUoSBillingNotification	3	4.5.2.1
353	Network DUoS Billing Details (Payment Advice)	B2B	NetworkDUoSBillingNotification	3	4.5.2.1

TABLE OF TRANSACTIONS			ASEXML		
Transaction No	Transaction Type	Comms Type	Transaction	PBP	Section Reference
354	Cross Meter Investigation. Initiate Request	B2B	N/A	Manual process	
355	Cross Meter Investigation. Investigation Report	B2B	N/A	Manual process	