

PARTICIPANT BUILD PACK 1

CSV DATA FORMAT SPECIFICATION

PREPARED BY: AEMO
DOCUMENT REF: 305192
VERSION: 3.3
DATE: 01 JANUARY 2014
FINAL :

Document Approval and Acceptance

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	
Position:	Senior Manager, Gas Retail Market Development	
Signature:		Date:

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

NAME:	TERRY GRIMWADE	
Position:	Executive General Manager, Market Development	
Signature:		Date:

Version History

VERSION	DATE	AUTHOR(S)	CHANGES AND COMMENTS
0.1	24/05/2002	MK	<ul style="list-style-type: none"> Initial draft
0.2	31/05/2002	MK	<ul style="list-style-type: none"> Draft update following GTPWG review
0.3	11/06/2002	MK, DM	<ul style="list-style-type: none"> Added clarification of "\$" sign treatment, Added trigger descriptions for some transactions, Minor typographical error corrections. Street_Identifier data element is renamed to Street_ID Suburb_or_Locality data element is renamed to Suburb_Or_Place_Or_Locality to align it with the same element in PBP3. Gas_Meter_Number is removed from T330. Added comment related to password protection of compressed files.
1.0	17/06/2002	MK	<ul style="list-style-type: none"> First release
1.1		MK	<ul style="list-style-type: none"> Added "no-acknowledgements" statement for CSV delivered via e-mail or on a disk. Change #2. Clarified the fixed column order for CSV components. Change #3. Planned_Outage_Commencement_Time is of type Time. Change #5. Added section 2.10 to explicitly state that the use of CDATA, <,>,& and hexadecimal characters is prohibited in CSV components. Change #6. Section 6.1 specifies transaction names as they should appear in CSV file name or e-mail subject. Change #7. Added "BAS" to Meter_Attachments element values (T333). Change #9.
1.2	23/02/2004	DM	<ul style="list-style-type: none"> Change Request 41. Add Customer Contact details transaction (see section 6.12) and update Data Dictionary section 7 as per CR 41
		DM	<ul style="list-style-type: none"> Change Request 20. Add "Street Suffix" (eg "N" North) and Postcode (optional) to Street and Suburb combination file. See 6.8 Refresh of New Street Listing for MIRN Discovery (T298).
		DM	<ul style="list-style-type: none"> Minor changes to introduction and approval section to accommodate post FRC

			operation
1.3	8/11/2004	DM	<ul style="list-style-type: none"> Change Request 67. Add further clarity as to how “space” characters are to be treated. See Section 2.11 (Leading and Trailing Spaces)
1.4	18/07/2005	DM	<ul style="list-style-type: none"> Minor changes to approval section to reflect organisational changes
1.5	30/06/2006	DM	<ul style="list-style-type: none"> Change Request 80. Add Complete MIRN Listing transaction (T299) (see section 6.13) and update and Compression Format section 4.4 as per CR 80
1.6	1/06/2009	DM	<ul style="list-style-type: none"> Update to include transactions for RoLR. Update to include transaction changes following the implementation workshop (see CR92). Update to include changes following review (to be included in CR94). Update to include changes for CR95. Consolidated 1.6 changes.
3.0	1/07/2010	SM	<ul style="list-style-type: none"> Ensure document meets AEMO standards. Check references. Add References to Predecessors
3.1	30/07/2012	SM	<ul style="list-style-type: none"> IN011/12 – Residual changes to align systems and schema with documentation (NECF)
3.2	01/03/2013	JL	<ul style="list-style-type: none"> IN029/12 Pilot Program BAU Process
3.3	01/01/2014	DM	<ul style="list-style-type: none"> IN004/12 – Redundant Provision and minor GIP and Spec Pack changes

Executive Summary

This document is the CSV Data Format Specification for delivery of the Comma-Separated Values files to support the operation of the Victorian Gas Retail 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	8
1.1 PURPOSE	8
1.2 AUDIENCE	8
1.3 SCOPE	8
1.4 RELATED DOCUMENTS	8
1.5 DEFINITIONS AND ACRONYMS	9
1.6 OVERVIEW AND STRUCTURE.....	9
2. CSV FORMAT	10
2.1 CHARACTER SET	10
2.2 HEADER	10
2.3 FOOTER	10
2.4 LITERALS TREATMENT	11
2.5 LINE BREAKS	11
2.6 VALUES SEPARATOR	11
2.7 OPTIONAL ELEMENTS	11
2.8 NUMERIC VALUES.....	12
2.8.1 <i>Positive and negative values</i>	12
2.8.2 <i>Leading and trailing zeroes</i>	12
2.8.3 <i>Format</i>	12
2.8.4 <i>Dollar amounts</i>	13
2.9 TAB CHARACTERS.....	13
2.10 SPECIAL CHARACTERS	13
2.11 LEADING AND TRAILING SPACES	13
3. FILE FORMAT.....	14
3.1 FILE NAME AND EXTENSION.....	14
3.2 END OF FILE MARKER	14
4. COMPRESSION FORMAT	15
4.1 FORMAT	15
4.2 NUMBER OF CSV COMPONENTS PER FILE	15
4.3 FILE NAME AND EXTENSION.....	15
4.4 PASSWORD PROTECTION.....	15
5. EMAIL FORMAT	16
5.1 SUBJECT LINE.....	16
5.2 NUMBER OF ATTACHMENTS	16
5.3 SIZE RESTRICTIONS.....	16
5.4 ACKNOWLEDGEMENTS	16
6. CSV DATA ELEMENTS.....	17
6.1 OVERVIEW.....	17
6.2 ENERGY HISTORY REQUEST (T45)	18

6.3	ENERGY HISTORY RESPONSE (T46)	18
6.4	ANNUAL METER READING SCHEDULE (T74)	21
6.5	METER READING ROUTE CHANGE (T75)	21
6.6	TIME EXPIRED METERS NOTIFICATION (T136)	22
6.7	STANDING DATA CHANGE FROM DB (T289)	22
6.8	REFRESH OF NEW STREET LISTING FOR MIRN DISCOVERY (T298)	23
6.9	NOTIFICATION OF MAINS/SERVICE RENEWAL (T330)	23
6.10	METER RANGE UPDATES (T333)	24
6.11	RETAILER CHURN FOR TARIFF V & D (T337)	25
6.12	AMEND CUSTOMER DETAILS SIX MONTHLY REFRESH (T71)	25
6.13	COMPLETE MIRN LISTING (T299)	26
6.13.1	<i>Password exchange process</i>	29
6.14	CUSTOMER AND SITE DETAILS (MONTHLY – NON HOST UPDATE) (T900)	29
6.15	CUSTOMER AND SITE DETAILS (T970 / INT602)	32
6.16	LIST OF RoLR TRANSFERS (T980 / INT603)	32
6.17	MIRN STANDING DATA (T1000)	32
6.18	ACCOUNT CREATION (T1005)	34
6.19	CUSTOMER AND SITE DETAILS FROM FRB TO RoLR (T1010)	35
6.20	BASIC METER METERING DATA (T1020 / INT604)	38
6.21	INTERVAL METER METERING DATA (T1030 / INT605)	38
6.22	LIST OF CANCELLED SERVICE ORDERS (T1050)	38
6.23	LIST OF AEMO METER FIXES (T1060 / INT606)	40
7.	DATA DICTIONARY	42

1. Introduction

1.1 Purpose

This document defines format of Comma-Separated Values (CSV) files for transactions that are to be exchanged amongst AEMO and Market Participants, to enable the Gas Retail Market in Victoria to operate in a uniformed manner.

1.2 Audience

The audience of this document includes IT developers, IT managers, testers, system analysts and system architects involved in the design and development of systems for Gas Retail Market in Victoria.

1.3 Scope

This document covers the delivery format of CSV component that is either incorporated into an aseXML transaction or as a file attached to an e-mail or provided on a disk. Transactions for which the delivery is via MIBB do not form part of this document.

The contents of CSV components carried in aseXML transactions are defined in Ref.[3,4].

1.4 Related Documents

REF	NAME	VERSION	RESPONSIBLE PARTY OR AUTHOR(S)
1	PBP1, Process Maps, Table of Transactions & Data Elements	Current version as published in the GIP	GTPWG
2	W3C Recommendation Extensible Markup Language (XML)	2 nd Edition	W3C, 6/10/1998
3	PBP2 Interface Definitions	Current version as published in the GIP	AEMO
4	PBP3 Interface Definitions	Current version as published in the GIP	AEMO
5	Retail Market Procedures (Victoria)	Current version as published on AEMO's website	<i>Gas Retail Consultative Forum – Victoria (GRFC-V)</i>

1.5 Definitions and Acronyms

The following acronyms and abbreviations used throughout this document:

AEMO	Australian Energy Market Operator
aseXML	A Standard for Energy Transactions in XML
ASCII	American Standard Code for Information Interchange
CSV	Comma-Separated Values
MIBB	Market Information Bulletin Board
MIRN	Meter Installation Registration Number.
NMI	National Metering Identifier
PBP	Participant Build Pack
XML	eXtensible Markup Language

Note that terms **MIRN** and **NMI**, for all intents and purposes of this document are identical and are used interchangeably.

CSV Component for the purpose of this document is defined as one or more rows of comma-separated values to be integrated into a file or an aseXML transaction.

CSV Element for the purpose of this document is defined as a data element as per transaction definition in Ref.[1].

1.6 Overview and Structure

Section 2 of this document defines the requirements to a CSV component format, use of line separators, tabs and treatment of literals and numeric values.

Section 3 specifies requirements to the format of a file that may carry a CSV component.

Section 4 describes the compression format to be used with CSV files.

Section 5 covers requirements to the format of an e-mail that may have compressed CSV file attached.

Section 6 details CSV data elements for transactions that otherwise not covered in Ref.[3,4]

Section 7 describes CSV data element types used in section 6.

The following diagram pictures the relationship between various portions of this specification with a reference to the Section of this or external document the portion has been described in.

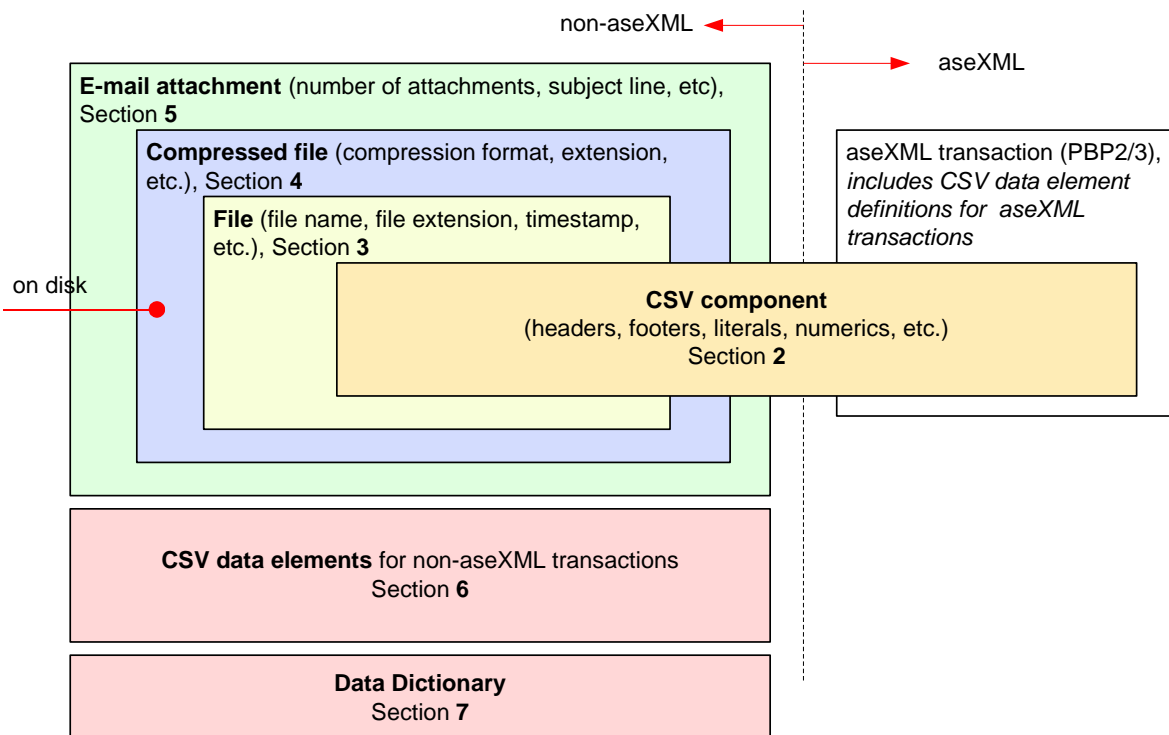


FIGURE 1-1. SPECIFICATION OVERVIEW

2. CSV Format

A CSV component contains the values in a table as a series of ASCII text lines organized so that each column value is separated by a comma from the next columns value and each row starts a new line.

This section specifies CSV format details. Most of the sections here particularize requirements to CSV component to be delivered not via aseXML. The CSV incorporated into aseXML transactions shall follow the guidelines specified in Ref.[2].

2.1 Character Set

The character set that is to be used within a CSV component is ASCII 7-bit. No Unicode characters are allowed.

2.2 Header

The very first line in a CSV component shall contain a set of column designators (column headers) that can be used in further processing. The column designators make CSV files more human readable and facilitate tracking of import problems.

Only one header per CSV component is allowed.

2.3 Footer

No footer is required for a CSV component.

2.4 Literals treatment

The CSV import application shall be capable of parsing literals whether they are surrounded by double-quotes or not. A CSV import tool/parser shall interpret the following two rows from a CSV file analogously:

```
123,"This is a sample field",456
123,This is a sample field,456
```

If a literal containing double-quotes needs to be inserted into a CSV, the entire field must be surrounded by double-quotes in addition to prefixing each contained double-quote with another one, e.g. in order to insert a field

```
This is a sample "quoted" field
```

into a CSV row, the following format shall be used:

```
"This is a sample "quoted" field"
```

This treatment allows for the incorporation of commas and quotes into a CSV element, if necessary. As the "lowest denominator", the format produced by Microsoft[®] Excel matches this treatment of literals.

2.5 Line breaks

The CSV components shall have a combination of Carriage Return (CR, ASCII decimal code 13) and Line Feed (LF, ASCII decimal code 10) at the end of each line.

Empty lines, i.e. lines containing just CR and LF, are not allowed.

2.6 Values separator

A comma "," is to be used to separate values in CSV file. If a comma shall occur inside a literal, then the entire literal shall be surrounded by double quotes as per 2.4.

No trailing commas are allowed at the end of each line, i.e. the number of value separators in any one row will always be: *number_of_values* – 1.

2.7 Optional elements

Where a CSV element is defined as "optional" or marked as "not required" or "NR" in Participant Build Packs, at very least, a placeholder for that element shall be present in a CSV component row.

For example, consider a 7-value CSV row for which 6th and 7th values are defined as optional.

```
Col_Hdr_1,Col_Hdr_2,Col_Hdr_3,Col_Hdr_4,Col_Hdr_5,Col_Hdr_6,Col_Hdr_7
abcdef1,defgh1,1234,123.45,qwertyuio,,
abcdef2,defgh2,6543,234.56,qwertyuio,,
. . .
```

2.8 Numeric values

2.8.1 Positive and negative values

Positive numbers in CSV file shall be unsigned. Negative numbers shall be prefixed with a negative sign.

2.8.2 Leading and trailing zeroes

There shall be no leading zeroes unless a specific data format requires this. Trailing zeroes are allowed only when the *scale* value requires so, refer to 2.8.3.

2.8.3 Format

The numeric values format definition in this document matching one defined in PBP2/3 and clarified in PBP2/3 Change Logs.

The numeric format is defined as **numeric** [(*precision* [, *scale*])]. The *precision* (referred to as "length" in PBP1/2/3) and *scale* (referred to as "decimal places" in PBP1/2/3) determine the range of values that can be stored in a numeric field:

- The precision specifies the maximum number of decimal digits that can be stored in the column. It includes *all* digits, both to the right and to the left of the decimal point. Precisions can range from 1 digit to 38 digits.
- The scale specifies the maximum number of digits that can be stored to the right of the decimal point. The scale shall be less than or equal to the precision. You can specify a scale ranging from 0 digits to 38 digits or use the default scale of 0 digits.
- The number of digits to the left of the decimal point cannot exceed $precision - scale$

An *Integer* can be represented as a numeric value with the *scale* of 0, i.e. Numeric(11,0)

Below are examples of **valid** values for a numeric type defined as Numeric(5,3)

12.345	12.000	0
-12.345	12	
12.100	12.0	

Here are some examples of **invalid** values for the type defined as Numeric(5,3):

1,200	12-
12.345678	123456.78

2.8.4 Dollar amounts

Dollar amounts shall not use a dollar sign "\$" either as a prefix or a postfix.

2.9 Tab characters

Tab characters shall not be used in CSV files.

2.10 Special characters

The use of CDATA (non-parsed character data as defined in Ref.[2]), characters "<", ">", "&" and hexadecimal characters is prohibited.

2.11 Leading and Trailing Spaces

In the case of numeric values the use of a leading, embedded or trailing space is inappropriate. Spaces should not be used where a value has a Numeric characteristic.

Where the value has a "text" characteristic that by its nature it can have a space or spaces as part of the structure, only embedded spaces are permitted. Leading and trailing space-characters immediately adjacent to the comma field separators should not be included in the CSV file. Therefore "John Citizen" resolves to ---,John Citizen,--- or ---,"John Citizen",---

Where values must have a leading or trailing spaces as a valid part of the data it must be delimited with double-quote characters. In this way it indicates that the leading and trailing spaces are a component part of the data for example:

---," John Citizen ",---

3. File Format

For non-aseXML transactions, CSV component may be incorporated into a file. Following the compression, the file can be delivered to the receiver as an e-mail attachment or on a disk.

3.1 File name and extension

The file name shall be constructed of the following elements separated by underscore "_" signs:

1. The FRC market. For Victoria Gas FRC it shall always be "VICGAS".
2. The name of the transaction to which the CSV file is supplied, as defined in 6.1.
3. The CSV file originator identifier, valid participant as per PBP2/3 ParticipantID
4. The CSV file recipient identifier, valid participant as per PBP2/3 ParticipantID. If the same CSV file is intended for more than one participant or destination is not specific, then "ALL" shall be used in place of the recipient identifier.
5. Date/time stamp in the format CCYYMMDDHHmmSS when the file has been generated, 24-hour format, local time of the originator.
6. The file extension of "CSV", case-sensitive, all uppercase, separated from the file name with a period ".".

Here's an example of a CSV file name:

VICGAS_ENERGYHISTORYRESPONSE_TXUR_PULSE_20020503131500.CSV

The following is an example of a CSV file name that is intended for more than one recipient:

VICGAS_ENERGYHISTORYRESPONSE_TXUR_ALL_20020503151500.CSV

3.2 End of file marker

The application that parses CSV shall be able to handle End-Of-File mark (EOF, ASCII decimal code 26) at the end of the file, if present.

4. Compression Format

4.1 Format

The supplied file shall be compressed using ZLIB format specification, as per RFC1950. The zip format is defined as being compatible with the PKZIP v2.04G utility. Utilities that support this format include WinZip and PKZIP.

Default level of compression shall be used.

4.2 Number of CSV components per file

There shall be only one CSV component per compressed file.

4.3 File name and extension

The name of the compressed CSV file name shall match the uncompressed CSV file name with extension "ZIP", case-sensitive, replacing "CSV".

4.4 Password protection

Compressed files are not normally password protected. If they are to be password protected these requirements will be specified in the transactions definition. Section 6 of this document details each transaction definition.

5. Email Format

A compressed file containing CSV component shall be attached to an e-mail for delivery to a participant. The specifications in this section facilitate internal delivery by participants.

5.1 Subject Line

The e-mail subject line for the compressed file incorporating CSV component shall be composed of the following parts, separated by a "_" signs:

1. The Gas Retail Market. For Victoria Gas it shall always be "VICGAS".
2. The name of the transaction to which the CSV file is supplied, as defined in 6.1.
3. The CSV file originator identifier, valid participant as per PBP2/3 ParticipantID.
4. The CSV file recipient identifier, valid participant as per PBP2/3 ParticipantID.
5. Date/time stamp in the format CCYYMMDDHHmmSS when the file has been generated, 24-hour format, local time of the originator.

Below is an example of a constructed e-mail subject line:

VICGAS_ENERGYHISTORYRESPONSE_TXUR_PULSE_20020503131500

5.2 Number of attachments

Each e-mail shall only contain one compressed file attachment to simplify internal routing that may be implemented by some participants.

5.3 Size restrictions

Compressed e-mail attachment shall not exceed 2MB in size to support limitations imposed by some e-mail gateways.

5.4 Acknowledgements

No acknowledgments shall be expected to CSV files delivered by e-mail or on the disk.

6. CSV Data Elements

6.1 Overview

The definitions for CSV components that are carried within aseXML transactions are given in Ref.[3] and Ref.[4].

The following sections specify the format of CSV components that will be delivered via e-mail or on a disk. The CSV component will be incorporated into a file, compressed and then attached to an e-mail or stored on a disk.

The CSV file name shall be constructed as described in section 3.1, the transaction name must be taken from the table below. E-mail subject line must be constructed as defined in section 5.1, the transaction name must be taken from the table below.

This document covers CSV details for the following transactions from the Ref.[1]:

TRANSACTION NUMBER	TRANSACTION TYPE DESCRIPTION	CSV FILE NAME / E-MAIL SUBJECT COMPONENT NAME	SECTION
45	Energy History Request	ENERGYHISTORYREQUEST	6.2
46	Energy History Response	ENERGYHISTORYRESPONSE	6.3
71	Amend Customer Details	AMEND CUSTOMER DETAILS	6.12
74	Annual Meter Reading Schedule	METERREADINGSCHEDULE	0
75	Meter Reading Route Change	READINGROUTECHANGE	6.5
136	Time Expired Meters Notification	TIMEEXPIREDMETERS	6.6
289	Standing Data Change From DB	STANDINGDATACHANGE	6.7
298	Refresh of New Street Listing for MIRN Discovery	NEWSTREETLISTING	6.8
330	Notification of Mains/Service Renewal	SERVICERENEWAL	6.9
333	Meter Range Updates	METERRANGEUPDATE	6.10
337	Retailer Churn for Tariff V & D	RETAILERCHURN	6.11
900	Customer Details from Non-Declared Host Retailers for RoLR	CUSTOMERSITEDetailsSMO NTHLY	6.14
1000	MIRN Standing Data	MIRNSTANDINGDATA	6.17

TRANSACTION NUMBER	TRANSACTION TYPE DESCRIPTION	CSV FILE NAME / E-MAIL SUBJECT COMPONENT NAME	SECTION
1005	Account Creation	ACCOUNTCREATION	6.18
1010	Customer Site Details from FRB	CUSTOMERSITEDetailsFRB	6.19

Note, the order of columns designators/headers in CSV files described by this document is fixed and is as defined in this specification.

6.2 Energy History Request (T45)

This transaction is an ad-hoc type request used to by the Retailer to request energy history from the Distributor. The requests may have resulted from a customer requesting such information or the Retailer may require the information as an integrity check. It is initiated by the Retailer and is passed to the Distributor and the frequency is unknown at this point in time.

TRANSACTION 45		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Begin_Date	M	
End_Date	M	
Full_History_Required	M	

6.3 Energy History Response (T46)

This transaction is a response to the Energy History Request (T45). Upon receipt of the request the Distributor has till 5:00pm on the 5th business day to provide this information proving that the request pertains to a period of time no more than 2 years or 10 business days if the period of time exceeds 2 years (see Ref[5], 2.1.5 (e)). This response is initiated by the Distributor and is passed to the Retailer and the frequency is unknown at this point in time.

The Meter Status is indicative of the current meter status and has no relevance to history.

TRANSACTION 46, CSVHISTORYRESPONSEDATA		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
RB_Reference_Number	O	Required when this record fulfils 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	
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"

TRANSACTION 46, CSVHISTORYRESPONSEDATA		
Heading/Column designator	Mandatory/ Optional	Comment
Meter_Status	M	This element reflects the current meter status.
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.

6.4 Annual Meter Reading Schedule (T74)

This transaction is used to advise the Retailer of the annual listing of proposed reading schedule. It is initiated by the Distributor and is passed to the Retailer and the frequency is once a year. The data is expected to be sorted in date order.

An example of a CSV file is below:

```
Scheduled_Reading_Day_Number,Meter_Read_Frequency,Date_of_Future_Read
12,B,2002-01-17
12,B,2002-03-19
12,B,2002-05-20
12,B,2002-07-18
12,B,2002-09-16
12,B,2002-11-14
```

TRANSACTION 74		
Heading/Column designator	Mandatory/ Optional	Comment
Scheduled_Reading_Day_Number	M	
Meter_Read_Frequency	M	
Date_of_Future_Read	M	

6.5 Meter Reading Route Change (T75)

This transaction is used to notification a Retailer of a change to schedule reading day. It is initiated by the Distributor and is passed to the Retailer and the frequency approximately 10,000 per year.

TRANSACTION 75, CSVAMENDSCHEDULEDREADINGDAY		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Reading_Day_Change_Effective_Date	M	
Scheduled_Reading_Day_Number	M	

6.6 Time Expired Meters Notification (T136)

This transaction is an ad-hoc type advice used by the Distributor to notify the Retailer of any planned meter changes it expects to undertake as a result of the Distributors meter time expired program change. The Retailer may use this information to advise customers and/or call centres of any such changes. It is initiated by the Distributor and is passed to the Retailer. The frequency of the transaction is unknown, however the number of meter changes undertaken as a result of time expired meter programs is 20,000.

TRANSACTION 136		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Proposed_Meter_Change_Start_Date	M	
Proposed_Meter_Change_End_Date	M	

6.7 Standing Data Change From DB (T289)

This transaction is sent to the Retailer to advise that a change in either the Transmission Zone, Heating Value Zone or Distribution Tariff has occurred. The frequency of the transaction is unknown at this point in time.

TRANSACTION 289		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Transmission_Zone	O	
Heating_Value_Zone	O	
Distribution_Tariff	O	
Standing_Data_Effective_Date	M	

6.8 Refresh of New Street Listing for MIRN Discovery (T298)

The Distributor must make available in an electronic form a remotely accessed street/suburb combination listing for Retailers. This listing is to be refreshed at least once a month (see Ref.[5], 3.3.1) and it is used by the Retailer to assist with MIRN Discovery requests (eg: the street name the Distributor uses in its database).

The data is prepared by the Distributor and can either be download from the Distributors website or e-mailed, if requested.

TRANSACTION 298		
Heading/Column designator	Mandatory/ Optional	Comment
Street_Name	M	
Street_ID	O	Mandatory if present
Street_Suffix	O	Mandatory if present
Suburb_Or_Place_Or_Locality	M	
Site_Address_Postcode	O	
Date_Updated	M	

6.9 Notification of Mains/Service Renewal (T330)

This transaction is passed by a Distributor to a Retailer to notify of service / mains renewal. It is an ad-hoc advice to the Retailer and advises of any planned service/mains work which may interrupt supply. The Retailer may use this information to advise customers and/or the call centre. It is initiated by the Distributor and is passed to the Retailer. The frequency of the transaction is unknown at this point in time.

TRANSACTION 330		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Planned_Outage_Commencement_D	M	

TRANSACTION 330		
Heading/Column designator	Mandatory/ Optional	Comment
ate		
Planned_Outage_Commencement_Time	M	
Duration_of_Outage	M	

6.10 Meter Range Updates (T333)

This transaction is used to notify a Retailer to update Meter Attributes such as “Number of Dials” for a given Meter Number Range etc. It is initiated by the Distributor and is passed to the Retailer and the frequency is approximately 4 per year.

TRANSACTION 333		
Heading/Column designator	Mandatory/ Optional	Comment
Low_Meter_Range	M	
High_Meter_Range	M	
Meter_Type_Size_Code	M	
Number_of_Meter_Dials	M	
Capacity_Group	M	
Meter_Description	M	
Metric_Imperial_Indicator	M	
Capacity	M	
Meter_Attachments	M	

6.11 Retailer Churn for Tariff V & D (T337)

This transaction is used by AEMO to notify a Distributor of the tariff "V" and "D" MIRNs which AEMO has in its meter register.

TRANSACTION 337		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Rel_From_Date	M	
Fro_Id	M	
Fro_Name	M	

6.12 Amend Customer Details Six Monthly Refresh (T71)

This transaction is used to notify a Distributor to update Customer Contact details such as "Customers Name" for a given MIRN etc. It is initiated by the Retailer and is passed to the Distributor and the frequency once ever six months.

TRANSACTION 71		
Heading/Column designator	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
Business_Name	O	Contains company or business name
ContactDetail_PersonName	O	Contains contact's mailing name or company name

TRANSACTION 71		
Heading/Column designator	Mandatory/ Optional	Comment
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
Movement_Type	M	A code that indicates the customer details update status "MI" = Move In "MO" = Move Out "UP" = Update

6.13 Complete MIRN Listing (T299)

The Distributor must make available to Retailers a listing of all distribution metering supply points that have a MIRN assigned and a MIRN status of either Registered (up stand installed), Commissioned (meter installed) or Decommissioned (meter removed) in the encrypted format described below (see Ref.[5], 3.3.1A).

The Distributor must ensure that the complete MIRN listing file is encrypted and compressed (see section 4.4 for allowable compression formats) in a way that when the Retailer retrieves the file it can be decrypted and uncompressed using the "WinZip" utility.

The Distributor will utilise the CSV fields and formats consistent with the fields and formats that are used in the aseXML schema applicable for a MIRN Discovery response which is defined in Participant Build Pack 3 B2B Systems Interface Definitions, section 4.3.2.3 (NMIDiscoveryResponse).

The complete MIRN listing is to be refreshed after the end of the calendar month by the Distributor and the Distributor must FTP the refreshed files to AEMO. AEMO will provide a secure location for each file that enables only Distributors to directly place the file in a location that enables only Retailers to retrieve that file from the secure location to which the relevant Retailers have Market Information Bulletin Board (MIBB) access privileges that require a username and password.

When the file is FTP'd to AEMO the file extension is to be written as a ".tmp" file and then renamed to prevent the file being processed while it is being delivered. The following file naming convention is to be used:

distributor_ccyymmddhhmiss.zip

Note: Reference to "Distributor" and "Retailer" refer to the Hub participant ID.

The file will be accessible via directory browsing on the MIBB rather than via a separate HTML page that would need to be maintained manually.

TRANSACTION 299		
Heading/Column designator	Mandatory/ Optional	Comment
MIRN	M	Must be present
MIRNChecksum	M	Must be present
FlatOrUnitType	O	
FlatOrUnitNumber	O	
FloorOrLevelType	O	
FloorOrLevelNumber	O	
BuildingOrPropertyName1	O	
BuildingOrPropertyName2	O	
LocationDescriptor	O	
HouseNumber1	O	
HouseNumber2	O	
HouseNumberSuffix1	O	

TRANSACTION 299		
Heading/Column designator	Mandatory/ Optional	Comment
HouseNumberSuffix2	O	
LotNumber	O	
StreetName1	O	
StreetName2	O	
StreetType1	O	
StreetType2	O	
StreetSuffix1	O	
StreetSuffix2	O	
PostalDeliveryType	O	
PostalDeliveryNumberPrefix	O	
PostalDeliveryNumberValue	O	
PostalDeliveryNumberSuffix	O	
SiteAddressCity	O	
SiteAddressState	O	
SiteAddressPostcode	O	
SiteAddressDPID	O	
GasMeterNumber	O	
Address1	O	
Address2	O	
Address3	O	

6.13.1 Password exchange process

The complete MIRN listing password exchange process is as follows:

- Retailer to nominate an email address to send password. These details are sent to DB's.
- Password to change each 90 days consistent with AEMO's MSATS Systems & AEMO's MIBB.
- DB's to email password details to retailer prior to it being used.

6.14 Customer and Site Details (Monthly – Non Host update) (T900)

In order to manage the 'transfer' and customer set up following a RoLR event, all non-Declared Host Retailers are to provide to AEMO, on a monthly basis, a list of MIRNS and associated details for which they are the FRO.

The Customer and Site Details (Monthly) listing is to be refreshed after the end of the calendar month by the non-Declared Host Retailers and the non-Declared Host Retailers must FTP the refreshed files to AEMO. AEMO will provide a secure location for each file that enables only all non-Declared Host Retailers to directly place the file in a secure location to which the relevant all non-Declared Host Retailer has Market Information Bulletin Board (MIBB) access privileges that require a username and password.

The following file naming convention is to be used:

VICGAS_CUSTOMERSITEDETAILSMONTHLY_OriginatorID_RecipientID_CCYYMMDDHHmmSS

Note: Reference to "all non-Declared Host Retailer" refer to the Hub participant ID.

TRANSACTION 900		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	Must be present
NMI_Checksum	M	Must be present
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 if Business-Name is not populated
Business_Name	O	Contains company or business name, required

TRANSACTION 900		
Heading/Column designator	Mandatory/ Optional	Comment
		if Person_Name_Family is not populated
Building_OrProperty_Name_1	O	Defines the building or Property name as per the Australian Standard AS4590
Building_OrProperty_Name_2	O	Defines the building or Property name as per the Australian Standard AS4590
ContactDetail_PersonName	O	Contains contact's mailing name or company name
Flat_Or_Unit_Type	O	This relates to the site of the MIRN
Flat_Or_Unit_Number	O	This relates to the site of the MIRN
Floor_Or_Level_Type	O	This relates to the site of the MIRN
Floor_Or_Level_Number	O	This relates to the site of the MIRN
Location_Description	O	This relates to the site of the MIRN
House_Number_1	O	This relates to the site of the MIRN
House_Number_2	O	This relates to the site of the MIRN
House_Number_Suffix_1	O	This relates to the site of the MIRN
House_Number_Suffix_2	O	This relates to the site of the MIRN
Lot_Number	O	This relates to the site of the MIRN
Street_Name_1	M	This relates to the site of the MIRN
Street_Name_2	O	This relates to the site of the MIRN
Street_Type_1	M	This relates to the site of the MIRN
Street_Type_2	O	This relates to the site of the MIRN
Street_Suffix_1	O	This relates to the site of the MIRN

TRANSACTION 900		
Heading/Column designator	Mandatory/ Optional	Comment
Street_Suffix_2	O	This relates to the site of the MIRN
Site_Address_City	M	This relates to the site of the MIRN
Site_Address_State	M	This relates to the site of the MIRN
Site_Address_Postcode	M	This relates to the site of the MIRN
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	O	Contains formatted postal address details
State_Or_Territory	O	Contains formatted postal address details
Postcode		Contains formatted postal address details
ContactDetail_PhoneNumber_1	O	Contains contact's primary phone number
ContactDetail_PhoneNumber_2	O	Contains contact's secondary phone number
Rebate_Code	O	Allowed Codes: Pension Card Health Care Card Health Benefits Card Veterans Affairs Card
Pensioner_Or_HealthCare_CardNumber	O	10 – string Nine Numeric and one alpha unique identifier as issued by the Dept. of Social Security or Veterans' Affairs
From_Date	O	Effective date at which the card is valid
To_Date	O	Date at which the card expires

TRANSACTION 900		
Heading/Column designator	Mandatory/ Optional	Comment
Date_Of_Birth	O	Customer's date of Birth
Customer_Identification	O	12 – string. Contains Customer's Driver's license
RoLR	M	Declared Host Retailer

6.14A RoLR CATS Accelerated (T940 / T950/ T960 INT607)

The T940 / T950/ T960 is a file list all ROLR related Accelerated to Completion MIRNs. It is sent to retailers and Distributors. AEMO will provide this via the MIBB after a RoLR event. The file format is located in the Master MIBB Guide.

See INT607.

6.15 Customer and Site Details (T970 / INT602)

The T970 is a file that AEMO provide the RoLRs to manage the transfer and set up of customers in their systems. AEMO will provide this via the MIBB and as such, the schema for this file is located in the Master MIBB Guide.

See INT602.

6.16 List of RoLR transfers (T980 / INT603)

After a RoLR event has occurred, AEMO will provide the DBs a list of the MIRNs that have been transferred away from the FRB to the RoLRs. AEMO will provide this via the MIBB and as such, the schema for this file is located in the Master MIBB Guide.

See INT603.

6.17 MIRN Standing Data (T1000)

In order for the Retailer of Last Resort to manage the customer set up following a RoLR event, the DB is to provide to the Retailer of Last Resort the standing data details for MIRNs which the Retailer of Last Resort has become the FRO for during the RoLR event.

This will be based on the MIRNs provided to the DBs in the T980

The method of data delivery will be via CD.

The following file naming convention is to be used:

VICGAS_MIRNSTANDINGDATA_OriginatorID_RecipientID_CCYYMMDDHHmmSS

TRANSACTION 1000		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	Must be present
NMI_Checksum	M	Must be present
Distribution_Tariff	O	Required if meter is attached
Transmisson_Zone	M	
Heating_Value_Zone	M	
Customer_Characterisation	O	Required if basic meter attached
Customer_Classification_Code	O	Required if provided by Retailer
Customer_Threshold_Code	O	Provided where customer classification code is a business customer
Meter_Serial_Number	O	Required if meter is attached
Pressure_Correction_Factor	O	Required if meter is attached
Meter_Status	O	Required if meter is attached
Supply_Point_Code	O	Required if meter is attached
Current_Read_Date	O	Required if Basic Meter is attached
Next_Scheduled_Read_Date	O	Required if Basic Meter is attached
MIRN_Status	M	
Meter_Read_Frequency	O	Required if Basic Meter is attached

TRANSACTION 1000		
Heading/Column designator	Mandatory/ Optional	Comment
Next_Scheduled_Special_Read_Date	O	Optional if Basic Meter is attached. Populated if there is a Special Read appointment booked against this MIRN
Communication_Equipment_Present	O	Required if Interval Meter is attached
Charge_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"
Charge_Amount	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true"
Charge_Expiry_Date	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true"

Note: The Address, AdditionalDataToFollow and Event elements has not been replicated in T1000 from the original aseXML transaction T281.

6.18 Account Creation (T1005)

In order for the Retailer of Last Resort to manage the customer set up following a RoLR event, the DB is to provide to the Retailer of Last Resort the standing data details for MIRNs which the Retailer of Last Resort has become the FRO for during the RoLR event.

This will be based on the MIRNs provided to the DBs in the T980

The method of data delivery will be via CD.

The following file naming convention is to be used:

VICGAS_ACCOUNTCREATION_OriginatorID_RecipientID_CCYYMMDDHHmmSS

TRANSACTION 1005		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	Must be present
NMI_Checksum	M	Must be present
Meter_Serial_Number	M	
Meter_Type_Size_Code	M	
Current_Index_Value	M	
Current_Read_Date	M	
Scheduled_Reading_Day_Number	M	
Access_Details	O	Optional data that will be provided if available
Melway_Grid_Reference	O	Optional data that will be provided if available
Meter_Position	O	Optional data that will be provided if available

6.19 Customer and Site Details from FRB to RoLR (T1010)

In order to manage the 'transfer' and customer set up following a RoLR event, all non-Declared Host Retailers are to provide to the Retailer of Last Resort a list of MIRNS and associated details for which they are the FRO at the time of the RoLR event.

The trigger for this data delivery will be AEMO issues a Suspension Notice to the FRB.

The method of data delivery will be via CD.

The following file naming convention is to be used:

VICGAS_CUSTOMERSITEDetailsFRB_OriginatorID_RecipientID_CCYYMMDDHHmmSS

TRANSACTION 1010		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	Must be present
NMI_Checksum	M	Must be present

TRANSACTION 1010		
Heading/Column designator	Mandatory/ Optional	Comment
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 if Business-Name is not populated
Business_Name	O	Contains company or business name, required if Person_Name_Family is not populated
Building_OrProperty_Name_1	O	Defines the building or Property name as per the Australian Standard AS4590
Building_OrProperty_Name_2	O	Defines the building or Property name as per the Australian Standard AS4590
ContactDetail_PersonName	O	Contains contact's mailing name or company name
Flat_Or_Unit_Type	O	
Flat_Or_Unit_Number	O	
Floor_Or_Level_Type	O	
Floor_Or_Level_Number	O	
Location_Description	O	
House_Number_1	O	
House_Number_2	O	
House_Number_Suffix_1	O	
House_Number_Suffix_2	O	
Lot_Number	O	
Street_Name_1	M	

TRANSACTION 1010		
Heading/Column designator	Mandatory/ Optional	Comment
Street_Name_2	O	
Street_Type_1	M	
Street_Type_2	O	
Street_Suffix_1	O	
Street_Suffix_2	O	
Site_Address_City	M	
Site_Address_State	M	
Site_Address_Postcode	M	
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	O	Contains formatted postal address details
State_Or_Territory	O	Contains formatted postal address details
Postcode		Contains formatted postal address details
ContactDetail_PhoneNumber_1	O	Contains contact's primary phone number
ContactDetail_PhoneNumber_2	O	Contains contact's secondary phone number
Rebate_Code	O	Allowed Codes: Pension Card Health Care Card Health Benefits Card Veterans Affairs Card

TRANSACTION 1010		
Heading/Column designator	Mandatory/ Optional	Comment
Pensioner_Or_HealthCare_CardNumber	O	10 –string - Nine Numeric and one alpha unique identifier as issued by the Dept. of Social Security or Veterans’ Affairs
From_Date	O	Effective date at which the card is valid
To_Date	O	Date at which the card expires
Date_Of_Birth	O	Customer’s date of Birth
Customer_Identification	O	Contains Customer’s Driver’s license
RoLR	M	Declared Host Retailer

6.20 Basic Meter Metering Data (T1020 / INT604)

After a RoLR event has occurred, AEMO will provide the RoLR some information in order for their business to complete its Wholesale Market nominations. AEMO will provide this via the MIBB and as such, the schema for this file is located in the Master MIBB Guide.

See INT604.

6.21 Interval Meter Metering Data (T1030 / INT605)

After a RoLR event has occurred, AEMO will provide the RoLR some information in order for their business to complete its Wholesale Market nominations. AEMO will provide this via the MIBB and as such, the schema for this file is located in the Master MIBB Guide.

See INT605.

6.22 List of Cancelled Service Orders (T1050)

This data can be delivered via CD or e-mail. If delivery is via e-mail then the formats described in Participants Build Pack 1 (CSV Data Format Specification) is to apply. Below is an example if Envestra is sending the file:

E-mail address:

Subject Line:

“VICGAS_SERVICE_ORDERS_INFLIGHT_ENVESTRA_20080730131500”

CSV Attachment:

Header (note: to be included in first row):

TRANSACTION 1050		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	Must be present
NMI_Checksum	M	Must be present
Job Enquiry Code	M	
Flat_Or_Unit_Type	O	
Flat_Or_Unit_Number	O	
Floor_Or_Level_Type	O	
Floor_Or_Level_Number	O	
Location_Description	O	
House_Number_1	O	
House_Number_2	O	
House_Number_Suffix_1	O	
House_Number_Suffix_2	O	
Lot_Number	O	
Street_Name_1	M	
Street_Name_2	O	
Street_Type_1	M	
Street_Type_2	O	

TRANSACTION 1050		
Heading/Column designator	Mandatory/ Optional	Comment
Street_Suffix_1	O	
Street_Suffix_2	O	
Site_Address_City	M	
Site_Address_State	M	
Site_Address_Postcode	M	
Postcode		Contains formatted postal address details
Special Job Instructions	M	

6.23 List of AEMO Meter Fixes (T1060 / INT606)

After a RoLR event has occurred, AEMO will provide the RoLR meter fix. AEMO will provide this via the MIBB and as such, the schema for this file is located in the Master MIBB Guide.

See INT606.

6.24 Obtain CFRO for MRM and/or SDR Service Order Requests (T356)

This email notification is an ad-hoc request used by the Retailer where they have received a request to undertake a MRM (Meter Removal Request) or SDR (Service Disconnection Request) service order and they are not the FRO for the MIRM.

Having confirmed they are not the FRO the Retailer will:

- Capture the customers' detailers
- Complete a MIRM discovery (if required) and,
- Send an email to AEMO Support Hub with the subject "OBTAIN CFRO FOR MRM AND/OR SDR".

AEMO will forward the email onto the CFRO; the CFRO will contact the customer and raise the service order request with the Distributor.

Note: the email will be sent to the CFRO as identified in AEMO's meter register. Where the MIRM does not exist in AEMO's meter register, AEMO will assume that it belongs to the host retailer and will send the email to the appropriate host retailer. The method of data delivery will be via email.

TRANSACTION 356		
Heading/Column designator	Mandatory/ Optional	Comment
Fro_Name	M	Contains initiating retailer
NMI	M	
Person_Name_Given	M	Contains customer name
ContactDetail_PhoneNumber_1	M	
ContactDetail_PhoneNumber_2	M	
Site Address	M	Contains supply point address which includes postcode
Suburb_Or_Place_Or_Locality	M	
Service Order Request	M	“SDR” = Service Disconnection Request “MRM” = Meter Removal Or both.
Other Information	O	

7. Data Dictionary

CSV DATA ELEMENT NAME	ATTRIBUTE / FORMAT	LENGTH / DECIMAL PLACES	ALLOWED VALUES / COMMENTS
Adjustment_Reason_Code	String	2	"UR" = Under Read "OR" = Over Read "UE" = Under Estimated "OE" = Over Estimated "NC" = No Change
Average_Heating_Value	Numeric	4,2	
Begin_Date	Date	10	ccyy-MM-dd
Building_OrProperty_Name_1	Char	36	Free text. There is a total 36 characters available for both name_1 and name_2, not 36 chars each.
Building_OrProperty_Name_2	Char	36	Free text. There is a total 36 characters available for both name_1 and name_2, not 36 chars each.
Business_Name	String	60	
Capacity	String	4	In cubic meters
Capacity_Group	String	2	"10" = up to and including 6cm "20" = 7cm to 49cm "30" = 50cm and above "40" = Prepaid meters 50 = Hot Water
Consumed_Energy	Numeric	11,0	In megajoules
ContactDetail_PersonName	String	60	
ContactDetail_PhoneNumber_1	String	15	
ContactDetail_PhoneNumber_2	String	15	
Current_Index_Value	Numeric	7,0	
Current_Read_Date	Date	10	ccyy-MM-dd
Customer_Identification	Char	12	Any valid driver's license number.
Customer_Classification_Code	Alpha	20	RES = Residential BUS = Business
Customer_Threshold_Code	Alpha	20	"LOW" = Business Customer

CSV DATA ELEMENT NAME	ATTRIBUTE / FORMAT	LENGTH / DECIMAL PLACES	ALLOWED VALUES / COMMENTS
			Consumption 0 – 399 GJ “MED” = Business Customer Consumption 400 – 999 GJ “HIGH” = Business Customer Consumption more than 1000GJ
Date_Of_Birth	Date	8	ccyy-MM-dd
Date_of_Future_Read_N	Date	10	ccyy-MM-dd Note, suffix "N" must be replaced with the future date ordinal
Date_Updated	Date	10	ccyy-MM-dd
Distribution_Tariff	String	1	"V" = Volume "D" = Demand
Duration_of_Outage	Numeric	2,0	
End_Date	Date	10	ccyy-MM-dd
Energy_Calculation_Date_Stamp	Date	10	ccyy-MM-dd
Energy_Calculation_Time_Stamp	Time	8	hh:mm:ss
Estimation_Substitution_Reason_Code	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 “14” = Key Required “15” = Access Overgrown "16" = Hi/Low Failure "17" = Meter Capacity Failure
Estimation_Substitution_Type	String	2	“E1” = Estimation method 1 “E2” = Estimation method 2 “E3” = RB/DB agreed value

CSV DATA ELEMENT NAME	ATTRIBUTE / FORMAT	LENGTH / DECIMAL PLACES	ALLOWED VALUES / COMMENTS
			"S1" = Substitution method 1 "S2" = Substitution method 2 "S3" = RB/DB agreed substituted value
Fro_Id	Integer		Defined in MIBB report documentation
Fro_Name	String	40	Defined in MIBB report documentation
From_Date	Date	8	ccyy-MM-dd
Full_History_Required	String	1	"Y" = Yes "N" = No
Gas_Meter_Number	String	12	
Gas_Meter_Units	String	1	"I" = Imperial "M" = Metric
Heating_Value_Zone	String	3	
Hi_Low_Failure	String	1	"Y" = Yes "N" = No
High_Meter_Range	String	12	
Low_Meter_Range	String	12	
Mail_Address_Line_1	String	80	
Mail_Address_Line_2	String	80	
Mail_Address_Line_3	String	80	
Meter_Attachments	String	3	"HEX" = hexagram (hard wired remote meter reading system). "DIA" = dialog attachment for remote meter reading. "RAD" =radio remote meter reading attachment. "SMC" =smart card prepayment meter attachment. "TEL" = telemetry attachment for remote meter reading
Meter_Capacity_Failure	String	1	"Y" = Yes "N" = No
Meter_Description	String	14	

CSV DATA ELEMENT NAME	ATTRIBUTE / FORMAT	LENGTH / DECIMAL PLACES	ALLOWED VALUES / COMMENTS
Meter_Read_Frequency	String	1	"B" = Bi-Monthly "M" = Monthly "Q" = Quarterly Q = Quarterly
Meter_Status	String	10	"Turned on" "Turned off" "Plugged" = Meter is disconnected "No meter"
Meter_Type_Size_Code	String	3	
Metric_Imperial_Indicator	String	1	"I" = Imperial "M" = Metric
Movement_Type	String	2	"MI" = Move In "MO" = Move Out "UP" = Update
Next_Scheduled_Read_Date	Date	10	ccyy-MM-dd
NMI	String	10	
NMI_Checksum	Integer	1	
Number_of_Meter_Dials	String	2	
Pensioner_Or_HealthCare_CardNumber	Char	15	Number conforms to DSS or DVA pensioner number formats.
Person_Name_Family	String	40	
Person_Name_Given	String	40	
Person_Name_Title	String	12	
Planned_Outage_Commencement_Date	Date	10	ccyy-MM-dd
Planned_Outage_Commencement_Time	Time	8	hh:mm:ss
Pressure_Correction_Factor	Numeric	6,4	
Previous_Index_Value	Numeric	7,0	
Previous_Read_Date	Date	10	ccyy-MM-dd
Proposed_Meter_Change_End	Date	10	ccyy-MM-dd

CSV DATA ELEMENT NAME	ATTRIBUTE / FORMAT	LENGTH / DECIMAL PLACES	ALLOWED VALUES / COMMENTS
_Date			
Proposed_Meter_Change_Start_Date	Date	10	ccyy-MM-dd
RB_Reference_Number	String	10	
Reading_Day_Change_Effective_Date	Date	10	ccyy-MM-dd
Reason_for_Read	String	3	<p>"SRF" = Special Final Read, "SRR" = Special Reference Read, "SRA" = Special Account Investigation, "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)</p>
Rebate_Code	Char	4	Stored as the charge-origin code as part of a Charge record within Debtors. The 4 characters are broken into a 3 char code followed by a 1 char suffix code.
Rel_From_Date	Date		Defined in MIBB report documentation
Scheduled_Reading_Day_Number	String	2	
Sensitive_Load_Flag	String	1	"Y" = Yes "N" = No
Service_Order_Request	Char	10	"SDR" – Service Disconnection Request "MRM" – Meter Removal or both
Site_Address			Standard Form
Site_Address_City	Char	29	Free text.
Site_Address_Postcode	String	4	
Site_Address_State	Char	3	State abbreviation eg. SA, VIC, NSW, etc.

CSV DATA ELEMENT NAME	ATTRIBUTE / FORMAT	LENGTH / DECIMAL PLACES	ALLOWED VALUES / COMMENTS
Standing_Data_Effective_Date	Date	10	ccyy-MM-dd
Street_ID	String	4	Refer to aseXML for allowed values
Street_Name	String	30	
Street_Suffix	String	2	Refer to aseXML for allowed values
Suburb_Or_Place_Or_Locality	String	46	
To_Date	Date	8	ccyy-MM-dd
Transmission_Zone	Numeric	2,0	
Type_of_Read	String	1	"A" = Actual, "E" = Estimated "S" = Substituted "C" = Customer Own Read.
Volume_Flow	Numeric	11,2	Cubic Metres