

C02-16C - Application AEMO Transition.pdf

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Application for Rule Change C02/16C – AEMO Transition

Under section 11ZOL of *Energy Coordination Act 1994* (the “Act”), Retail Energy Market Company Limited (“REMC”) may prepare an amendment to its Retail Market Scheme (the “Scheme”), and submit the amendment to the Economic Regulation Authority (the “Authority”) for approval. The Authority is to approve amendments to the Scheme under section 11ZOM of the Act.

(1) The Proposed Change

REMC is applying to the Authority for approval of Rule Change C02/16C – AEMO Transition. Under Rule Change C02/16C, responsibility for operation of the Western Australian (“WA”) gas retail market will be transferred from REMC to the Australian Energy Market Operator (“AEMO”). Specifically, REMC is seeking to:

- Replace REMC with AEMO as the WA gas retail market operator;
- Replace the REMC Constitution v10 with the WA Gas Retail Market Agreement (“WAGRMA”) as the agreement between market participants.
- Replace the Retail Market Rules v 6.9 (the “Rules”) with the Retail Market Procedures (WA) v1 (the “Procedures”).
- Replace the Specification Pack, as follows:
 - AEMO Specification Pack Usage Guidelines (replace v6.1 with v6.2);
 - Interface Control Document (replace v4.5 with v4.6);
 - FRC B2B System Interface Definition (replace v3.9 with v4.0);
 - FRC B2M-B2B HUB System Specifications (replace v3.7 with v3.8);
 - FRC B2M-B2B Hub System Architecture (replace v3.4 with v3.5);
 - FRC CSV Data Format Specification (replace v3.2 with v3.3);
 - Connectivity Testing and Technical Certification (replace v3.4 with v3.5);
 - Readiness Criteria (replace v2.1 with v2.2);
 - B2B Service Order Specification Part 1 (replace v2.2 with v2.3); and
 - B2B Service Order Specification Part 2 (no changes – keep v3.3).
- The FRC Hub Operational Terms and Conditions (the “Hub T&Cs”) (replace v7.0 with v8.0).

(2) Description of the Issue

REMC, AEMO and the WA gas retail market participants have considered the long-term future of the market; and concluded that it is appropriate to pursue the transition of WA gas retail market operations from REMC to AEMO (the “Transition”). The rationale for this conclusion is:

- REMC and its governance model have worked well historically because it:
 - is efficient;
 - is low cost;
 - is responsive; and
 - has a local interface.
- However, external forces have led to a loss of scale for REMC, including:
 - the South Australian (“SA”) Government required REMC to transfer its SA gas retail market operations to AEMO in 2009;
 - the WA Government awarded operation of the WA Gas Bulletin Board and Gas Statement of Opportunities to the Independent Market Operator (“IMO”) in 2010; and
 - the WA Government transferred IMO’s functions to, and awarded operation of the WA electricity retail market to AEMO in 2015.

- This loss of scale left REMCo and WA gas retail market participants with two options:
 - (1) Retain REMCo as the WA gas retail market operator, which would result in:
 - increased cost and reduced efficiency; but
 - keeping the local interface and responsiveness.
 - (2) Transition WA gas retail market operations to AEMO, which:
 - would likely result in reduced costs and maintained efficiency; but
 - could lead to loss of the local interface and reduced responsiveness.

The REMCo Board held a strategic development session on 08/10/15, where it concluded that option (2) is preferred, given:

- the role AEMO already plays in the WA gas retail market as a service provider to REMCo; and
- AEMO's vast expertise in operating other Australian gas and electricity retail markets.

Further details on the rationale for the Transition are provided in the Proposed Rule Change ("PRC") paper and the Impact and Implementation Report ("IIR") for C02/16C (see Attachments 3 and 5, respectively).

(3) Development of the Proposed Change

The Rule Change Committee (the "Committee") was introduced to the concept of the Transition at its meeting on 22/03/16. REMCo, AEMO, and the Committee have subsequently worked diligently on the details of how the Transition is to occur, and in particular on the changes to the Scheme documentation.

REMCo and AEMO executed a binding Memorandum of Understanding ("MOU") on 30/05/16 that commits REMCo and AEMO to develop the Transition based on a set of principles that will protect the interests of WA gas consumers and gas retail market participants. The concept for the Transition is as follows:

- The WA gas retail market will continue to be governed by the Act, which requires all gas distribution systems to have an approved Scheme (with some exceptions).
- Section 11ZOF(1) of the Act specifies that Schemes are to have the following components:
 - (a) a "formal entity" to operate the market;
 - (b) an "agreement" between the "formal entity" and the market participants (i.e. Retailers and Network Operators); and
 - (c) a set of "retail market rules" to govern the market.
- Section 11ZOM of the Act specifies that the Authority must approve any Scheme amendments before they can be implemented.

REMCo operates the only approved Scheme. REMCo is applying to the Authority to amend its Scheme to allow the Transition, as indicated in Table 1.

Table 1 – Proposed Changes to the Approved Scheme		
	Current Scheme	Revised Scheme
(a) The formal entity:	○ REMCo.	○ AEMO.
(b) The agreement:	○ REMCo Constitution.	○ WAGRMA.
(c) The retail market rules:	○ The Rules. ○ The Specification Pack. ○ The Hub T&Cs.	○ The Procedures. ○ A revised Specification Pack. ○ A revised Hub T&Cs.

A large number of minor Scheme documentation changes are proposed, including:

- replacing references to “REMCo” with “AEMO” in the Rules, Specification Pack, and Hub T&Cs;
- renaming the Rules as the Procedures (including any references to the Rules in the Specification Pack and Hub T&Cs);
- inserting a new clause 7A in the Procedures outlining the objectives for administering the Scheme (i.e. inserting the REMCo Primary Aim and Objects from the REMCo Constitution);
- clarifying clause 362A to give AEMO ability to charge lower joining and annual fees to small Users and Self-Contracting Users, consistent with current REMCo policy; and
- cleaning up some other aspects of the Scheme documentation, including:
 - fixing referencing and other minor errors;
 - removing spent provisions;
 - removing overlapping provisions that exist in other WA regulatory artefacts;
 - adjusting definitions to reflect AEMO’s usage of terms; and
 - picking up two other changes that have been agreed by the Committee:
 - Rule Change C01/16R – Customer Transfer on Non-Business Days; and
 - Rule Change C03/16R – EIC for Large Customers.

There will be three significant changes to the Scheme:

- Replacing the REMCo Constitution with the WAGRMA.
 - The WAGRMA will replace the REMCo Constitution as the “agreement” under the Act. The WAGRMA will have a different form from the REMCo Constitution, but will have the same function on essentially the same terms.
 - All Retailers and Network Operators will be required to execute the WAGRMA to become a “Scheme Participant” that can then participate in the WA gas retail market.¹
 - Under the WAGRMA, AEMO and all Scheme Participants agree:
 - to be bound by, and observe the terms of the Procedures;
 - that any amendments to the Procedures shall be made in accordance with the terms of the Procedures; and
 - to abide by any determination made by the Compliance Panel on any compliance matter to which the Scheme Participant is a party.
- Changing some aspects of Chapter 6 of the Procedures (Compliance and Interpretation):
 - AEMO will not have the power to make Procedure breach and interpretation determinations – this power will rest with the independent Compliance Panel created under the Procedures;
 - the Compliance Panel will have authority to delegate power to AEMO to make determinations on whether a compliance matter is material (this will maintain the efficiency of the current compliance arrangements); and

¹ Section 11ZOC of the Act requires all Retailers and Network Operators to be bound by the “agreement” to comply with the terms of the “retail market rules”. Any party that executes the WAGRMA will become a “Scheme Participant”, and are then eligible to participate in the WA gas retail market and must comply with the Procedures. The eligibility criteria in the WAGRMA for becoming a Scheme Participant are the same as the eligibility criteria in the REMCo Constitution for becoming a REMCo Member.

All Scheme Participants will be eligible to become AEMO Members, but there is no requirement to be an AEMO Member to participate in the WA gas retail market.

Section 11ZOD(1) of the Act indicates that Pipeline Operators and Prescribed Persons (i.e. Self-Contracting Users, Shippers, and Swing Service Providers) are required to comply with the relevant parts of the retail market rules. The Act does not require Pipeline Operators or Prescribed Persons to be bound by the “agreement”, but the WAGRMA has nevertheless been drafted to allow Self-Contracting Users to execute the WAGRMA so that they can become an AEMO Members if they choose to do so.

- the Compliance Panel will be required to meet at least once per year to:
 - receive updates on any compliance matters and any material Scheme amendments; and
 - confirm the Compliance Panel guidelines and delegations.
- Changing some aspects of Chapter 9 of the Procedures (the Procedure Change Process):
 - AEMO will make all decisions in the Procedure change process;
 - Authority approval will still be required for any Scheme amendments;
 - AEMO must consult with the Procedure Change Committee (“PCC”) on any Scheme amendments, but the PCC will no longer be a decision making body; and
 - AEMO must publish on its website all of its applications to the Authority for approval of Scheme amendments so that Market Participants can make submissions to the Authority if they disagree with the application.

Most practical aspects of the Scheme will not change. The market will still be governed by the Act, and Authority approval will still be required for all Scheme amendments. Most of the Procedures will stay substantively the same, including:

- Chapter 1 (Interpretation and Administration);
- Chapter 2 (the Databases);
- Chapter 3 (MIRN Transactions);
- Chapter 4 (Metering);
- Chapter 5 (Allocation, Reconciliation, and Swing);
- Chapter 7 (Reporting and Audits);
- Chapter 8 (Administration); and
- Chapter 10 (General Provisions).

Only administrative changes will be made to the Specification Pack and Hub T&Cs; so the WA gas retail market technical protocols, systems, and interfaces will not change. This will ensure that the Transition will not have any material costs for WA gas retail market participants or gas consumers.

A detailed summary of the changes to the Procedures, Specification Pack, and Hub T&Cs is provided in the IIR for C02/16C (see Attachment 5). Copies of the documentation for the revised Scheme with all proposed changes tracked are attached, including:

- the WAGRMA (see Attachment 6);
- the Procedures (see Attachment 7);
- the Specification Pack:
 - AEMO Specification Pack Usage Guidelines (see Attachment 8);
 - Interface Control Document (see Attachment 9);
 - FRC B2B System Interface Definition (see Attachment 10);
 - FRC B2M-B2B HUB System Specifications (see Attachment 11);
 - FRC B2M-B2B Hub System Architecture (see Attachment 12);
 - FRC CSV Data Format Specification (see Attachment 13);
 - Connectivity Testing and Technical Certification (see Attachment 14);
 - Readiness Criteria (see Attachment 15);
 - B2B Service Order Specification Part 1 (see Attachment 16);
 - B2B Service Order Specification Part 2 (see Attachment 17); and
- the Hub T&Cs (see Attachment 18).

(4) Materiality

Chapter 9 of the Rules indicates that:

- A “non-substantial” change is one that does not have an effect on the operations of REMCo, interested persons or prescribed persons and merely corrects typographical errors, grammatical errors, cross-referencing errors and other similar trivial defects.
- A “low impact change” is one that does not have a material impact on:
 - the information technology systems of REMCo, market participants, pipeline operators or prescribed persons;
 - consumer protection mechanisms under the RMRs; or
 - REMCo, participants, pipeline operators or prescribed persons.
- A “high impact” change is a one that is not classified as having a “non-substantial impact” or a “low impact”.

The Committee agreed on 11/07/16 that C02/16C is a high impact change because it will have a material impact on REMCo, as REMCo will have no remaining functions after the Transition and will likely be wound up in 3-6 months.

(5) Consultation

REMCo and AEMO have conducted an extensive consultation program regarding the Transition. The consultation program commenced in October 2015, and covered all identified parties that could be impacted by the Transition, as indicated in Table 2.

Table 2 – Parties Consulted	
Category	Parties Consulted
Market Operators	<ul style="list-style-type: none">• AEMO; and• REMCo.²
Retailers ³	<ul style="list-style-type: none">• Alinta Sales Pty Ltd (“Alinta”);• Electricity Generation and Retail Corporation (trading as “Synergy”);• Kleenheat Gas Pty Ltd (“Kleenheat”); and• Perth Energy Pty Ltd (“Perth Energy”).
Network Operators	<ul style="list-style-type: none">• ATCO Gas Australia (“ATCO”).
Self-Contracting Users	<ul style="list-style-type: none">• APT Facility Management Pty Ltd (“APTFM”); and• Geraldton Brick Pty Ltd (“Geraldton Bricks”).
Pipeline Operators	<ul style="list-style-type: none">• APT Parmelia Pty Ltd (“APTP”); and• Dampier to Bunbury Pipeline (“DBP”).

² REMCo also consulted with its IT service provider, CGI Technologies and Solutions Australia Pty Limited (“CGI”) throughout the development of Rule Change C02/16C. The Transition has been structured so that CGI will continue to operate the WA Gas Retail Market Systems (the “GRMS”) after market operations are transferred to AEMO, so there will be no impact on REMCo or market participants IT systems.

³ Agora Retail Pty Ltd (“Agora”) applied to join REMCo in June 2016, and the REMCo Board approved Agora’s application in July 2016, subject to a number of conditions. All of the conditions on the approval are likely to be met in early September 2016, so Agora is likely to be a REMCo Member prior to go-live of the Transition. Agora will be a Retailer, and is related to gasTrading Australia Pty Ltd (“gasTrading”). REMCo consulted with, and received support for the Transition from gasTrading prior to Agora applying to join REMCo.

Table 2 – Parties Consulted	
Category	Parties Consulted
Government	<ul style="list-style-type: none"> the secretariat of the Authority; the Minister for Energy (the Hon Dr Michael Nahan, MLA); and the Public Utilities Office (“PUO”).
Consumers	<ul style="list-style-type: none"> The Chamber of Commerce and Industry of Western Australia (“CCIWA”).

Table 3 provides a summary of the consultation program that has been conducted regarding the Transition.

Table 3 – Consultation Program for the Transition		
Step	Date	Process
(1)	30/09/15	<ul style="list-style-type: none"> The Minister for Energy announced that the IMO is to be rolled into AEMO, and AEMO is to be made the WA electricity retail market operator.
(2)	08/10/15	<ul style="list-style-type: none"> The REMCo Board⁴ held Meeting No. 168, where it discussed the long-term options for WA gas retail market operations, including: <ul style="list-style-type: none"> continue to have REMCo operate the WA gas retail market as a stand-alone operation; or pursue the Transition.
(3)	22/10/15	<ul style="list-style-type: none"> The REMCo Board held Meeting No. 169, where it further discussed the long-term options for WA gas retail market operations. The Coordinator of Energy (Ray Challen) attended the Board meeting and advised that the WA Government had not considered changes to WA gas retail market operations, but would be receptive to requests for change from industry.
(4)	23/10/15	<ul style="list-style-type: none"> The REMCo Chairman (David Eiszele) and CEO (Stephen Eliot) met with the Minister for Energy’s office – the Chief of Staff (Simon Helm) and Energy Advisor (Sonja Tasovac). REMCo was advised that Government would prefer that the WA gas retail market participants form a view on how they want the WA gas retail market to develop, and then make a proposal to Government.
(5)	29/10/15	<ul style="list-style-type: none"> REMCo (David Eiszele, Stephen Eliot, and the REMCo independent Director (Peter Fitzpatrick)) met with the AEMO CEO (Matt Zema) and agreed to develop the details and timing for how the Transition could work.
(6)	10/11/15	<ul style="list-style-type: none"> REMCo (David Eiszele and Stephen Eliot) met with AEMO (the AEMO Chairman (Tony Marxsen) and Matt Zema) and agreed to pursue the Transition, subject to working out details that are acceptable to WA gas retail market participants and would protect the interests of WA gas consumers.
(7)	19/11/15	<ul style="list-style-type: none"> The REMCo Board held Meeting No. 171, where it agreed that REMCo should pursue the Transition.
(8)	04/02/16	<ul style="list-style-type: none"> The REMCo Board held Meeting No. 173, where it developed its vision and objectives for the Transition, and its preferences to address a number of identified Transition issues.

⁴ The REMCo Board has two independent Directors; and Directors appointed by Alinta, ATCO, Kleenheat, and Synergy. The Authority and Perth Energy also have observers on the REMCo Board.

Table 3 – Consultation Program for the Transition

Step	Date	Process
(9)	17/02/16	<ul style="list-style-type: none"> REMCo (Stephen Eliot) met with the PUO (Ray Challen and Ben Ford), where the PUO indicated that it has no concerns with the Transition; or with REMCo's vision, objectives, preferred approach, and timing for the Transition.
(10)	25/02/16	<ul style="list-style-type: none"> REMCo (Peter Fitzpatrick and Stephen Eliot) with the Minister's office (Simon Helm and Sonja Tasovac), where Mr Helm indicated that Government has no concerns with the Transition; or with REMCo's vision, objectives, preferred approach, and timing for the Transition.
(11)	16/03/15	<ul style="list-style-type: none"> The Committee held Meeting No. 76, where the Committee was introduced to the concept of the Transition.⁵
(12)	12/04/16	<ul style="list-style-type: none"> REMCo briefed gasTrading Australia (agent for Geraldton Bricks) on the Transition and the matters impacting Self-Contracting Users. gasTrading Australia indicated that they are supportive of the Transition.
(13)	16/04/16	<ul style="list-style-type: none"> REMCo (David Eiszele, Peter Fitzpatrick and Stephen Eliot) and AEMO (Brett Hausler and Peter Gunn) commenced discussions on the regulatory and commercial matters relating to the Transition.
(14)	20/04/16	<ul style="list-style-type: none"> Committee Meeting No. 77 was held, where a Gas Market Issue ("GMI") paper for Issue 186 (the AEMO Transition) was tabled and key matters were discussed. A copy of this GMI is attached (see Attachment 1).⁶
(15)	26/04/16	<ul style="list-style-type: none"> REMCo sent papers to the Committee by e-mail for review and comment, including: <ul style="list-style-type: none"> a table listing the detailed proposed Rule changes (the "Rule Change Table"); and the principles for the proposed changes to Chapters 6 (Compliance and Interpretation) and 9 (Rule Change Process) of the Rules.
(16)	29/04/16	<ul style="list-style-type: none"> REMCo briefed Perth Energy on the Transition and the matters impacting small Retailers. Perth Energy indicated that they are supportive of the Transition.
(17)	02/05/16	<ul style="list-style-type: none"> REMCo briefed APTP on the Transition and the matters impacting Pipeline Operators. APTP indicated that they have no concerns with the Transition.
(18)	06/05/16	<ul style="list-style-type: none"> Alinta and Synergy provided comments to REMCo on the papers provided under step (15).
(19)	18/05/16	<ul style="list-style-type: none"> Committee Meeting No. 78 was held,⁷ where: <ul style="list-style-type: none"> an updated GMI for Issue 186 was tabled and key matters were discussed; and an updated Rule Change Table reflecting the comments made in step (18) was tabled and discussed in detail.

⁵ The Committee has representatives from REMCo, Alinta, ATCO, Kleenheat, and Synergy. The Authority has an observer on the Committee. Committee papers are sent to Perth Energy and to the Pipeline Operators (APTP and DBP); who are also permitted to send observers to attend Committee meetings.

⁶ The attached copy of the GMI for Issue 186 shows:

- the original text of the GMI from 20/04/16 in grey italic font; and
- the current status of the issues addressed in the GMI, as of 29 August 2016, with updates tracked in the document.

⁷ AEMO commenced sending observers to RCC meetings at Meeting No. 78 to represent the views of AEMO in discussions about the Transition

Table 3 – Consultation Program for the Transition

Step	Date	Process
(20)	26/05/16	<ul style="list-style-type: none"> • REMCo Board Meeting No. 178 was held, where the Board approved execution of the MOU.
(21)	30/05/17	<ul style="list-style-type: none"> • REMCo and AEMO executed the MOU.
(22)	01/06/16	<ul style="list-style-type: none"> • AEMO held a Special General Meeting, where the AEMO Members agreed to changes to the AEMO Constitution to allow AEMO to operate the WA gas retail market (amongst other things).
(23)	03/06/16	<ul style="list-style-type: none"> • REMCo updated gasTrading Australia on progress on the Transition and the matters impacting Self-Contracting Users. gasTrading Australia indicated that they continue to support the Transition.
(24)	16/06/16	<ul style="list-style-type: none"> • REMCo briefed APTFM on the Transition and the matters impacting Self-Contracting Users. APTFM indicated that they have no concerns with the Transition.
(25)	24/06/16	<ul style="list-style-type: none"> • REMCo briefed the CCIWA on the Transition and the matters impacting consumers. The CCIWA indicated that they have no concerns with the Transition.
(26)	29/06/16	<ul style="list-style-type: none"> • Committee Meeting No. 79 was held, where several papers were tabled and discussed in detail, including: <ul style="list-style-type: none"> ○ an updated GMI for Issue 186; ○ an updated Rule Change Table reflecting the discussion from Committee Meeting No. 78; ○ a table listing the detailed proposed Specification Pack changes (the “Specification Pack Change Table”); ○ a table listing the detailed proposed Hub T&Cs changes (the “Hub T&Cs Change Table”); ○ a draft of the WAGRMA; and ○ a draft PRC paper; • The Committee gave in principle support to the proposed changes to the Specification Pack and the Hub T&Cs.
(27)	30/06/16	<ul style="list-style-type: none"> • The Rule Change Table and draft WAGRMA were updated to reflect the discussion at Committee Meeting No. 79 and were e-mailed to the Committee for review and comment.
(28)	06/07/16	<ul style="list-style-type: none"> • AEMO, Alinta, Synergy, and Kleenheat sent comments to REMCo on the Rule Change Table.
(29)	11/07/16	<ul style="list-style-type: none"> • Alinta, ATCO, Kleenheat and Synergy sent comments to REMCo on the draft WAGRMA and gave in principle support for the WAGRMA. • The Committee endorsed the PRC and accepted C02/16C as a high-impact Rule change (by e-mail).
(30)	13/07/16	<ul style="list-style-type: none"> • REMCo commenced the first round of public consultation on Rule Change C02/16C.⁸

⁸ REMCo is required to undertake two rounds of public consultation on any high-impact proposed Rule changes:

- the first round of consultation is to seek objections, and must last for at least 10 business days (Rule 398); and
- the second round of consultation is to seek submissions, and must last for at least 20 business days (Rule 400).

Table 3 – Consultation Program for the Transition

Step	Date	Process
		<ul style="list-style-type: none"> • REMCo published the following documents on its website:⁹ <ul style="list-style-type: none"> ○ a Notice of Consultation explaining the nature of the proposed changes and explaining how to make a submission (see Attachment 2); ○ the finalised PRC paper accepted by the Committee (see Attachment 3); ○ a copy of the draft WAGRMA; ○ a copy of the Procedures, with changes marked from the Rules; ○ a copy of all of the Specification Pack documents with all changes tracked; and ○ a copy of the Hub T&Cs with all changes tracked. • REMCo also e-mailed all registered interested parties and other potentially interested parties regarding this process – this covered all of the parties listed in Table 2.
(31)	27/07/16	<ul style="list-style-type: none"> • The first round of public consultation on Rule Change C02/16C closed. REMCo did not receive any objections.
(32)	25/07/16	<ul style="list-style-type: none"> • REMCo held an Extraordinary General Meeting, where the REMCo Members unanimously approved the Transition, subject to: <ul style="list-style-type: none"> ○ approval by the Authority of the Scheme changes necessary to enable the Transition; and ○ agreement by the REMCo Board to the Transition Deed (the agreement between REMCo and AEMO to deal with commercial matters for the Transition).
(33)	27/07/16	<ul style="list-style-type: none"> • The Committee held Meeting No. 80, where it was notified of the closure of round 1 of consultation on Rule Change C02/16C. The Committee agreed that REMCo is to draft an Impact and Implementation Report (“IIR”) for Rule Change C02/16C and commence the second round of consultation on this change.
(34)	29/07/16	<ul style="list-style-type: none"> • REMCo commenced the second round of public consultation on C02/16C. REMCo published the following documents on its website:⁸ <ul style="list-style-type: none"> ○ a new Notice of Consultation explaining the nature of the proposed changes and explaining how to make a submission (see Attachment 4); ○ the IIR that was prepared by REMCo following closure of the first round of public consultation and after Committee Meeting No. 80 (see Attachment 5); ○ a copy of the draft WAGRMA (see Attachment 6); ○ a copy of the Procedures, with changes marked from the Rules (see Attachment 7); ○ a copy of all of the Specification Pack documents with all changes tracked (see Attachments 8 to 17); and ○ a copy of the Hub T&Cs with all changes tracked (see Attachment 18).

⁹ REMCo ran a concurrent consultation process for two high-impact Rule changes – C02/16C (AEMO Transition) and C03/16R (EIC for Large Customers).

Table 3 – Consultation Program for the Transition

Step	Date	Process
		<ul style="list-style-type: none"> REMCo also e-mailed all registered interested parties and other potentially interested parties regarding this process – this covered all of the parties listed in Table 2.
(35)	23/08/16	<ul style="list-style-type: none"> The REMCo Board held Meeting No. 180, where it approved REMCo submitting Rule Changes C02/16C and C03/16R to the Authority for approval, subject to REMCo receiving no objections to these Rule changes by the closure of round 2 of the public consultation process on 26/08/16.
(36)	26/08/16	<ul style="list-style-type: none"> The second round of public consultation on Rule Change C02/16C closed. REMCo did not receive any objections, and received submissions supporting the Transition from: <ul style="list-style-type: none"> Alinta (see Attachment 19); Kleenheat (see Attachment 20); Synergy (see Attachment 21); and the PUO (see Attachment 22).
(37)	29/08/16	<ul style="list-style-type: none"> The Committee held Meeting No. 81, where it endorsed application to the Authority for two further changes to the Hub T&Cs. <ul style="list-style-type: none"> Since the AEMO Specification Pack and Hub T&Cs apply in both WA and SA, AEMO consulted on the proposed changes to these documents with the SA gas retail market participants. During this consultation process, two additional references to the Rules were identified in sections 3.6.4 and 3.10.1 of the Hub T&Cs that need to be addressed, as follows: <div style="margin-left: 20px;"> <p>3.6.4 AEMO will configure the testing gateway to apply applicable business rules in the defined jurisdictional Retail Market Procedures and Retail Market Rules for Western Australia to incoming transactions.</p> <p>3.10.1 AEMO will provide a certification gateway, to support the certification of Subscriber compliance with requirements specified in the Retail Market Procedures and Retail Market Rules for Western Australia, or its subordinate instruments (e.g. the Gas Interface Protocol or Specification Pack) applicable in a Subscriber's jurisdiction.</p> </div> Since the Committee has previously agreed to change all references to the Rules in the Scheme documentation (see ref 1 in the IIR for C02/16C – Attachment 5), the Committee agreed that it is appropriate to apply for these further changes to the Hub T&Cs as part of Rule Change C02/16C. The Committee was also advised that, in entering the Procedures into the AEMO template, AEMO has identified some further minor changes that will need to be made to the Procedures. <ul style="list-style-type: none"> These additional minor changes are likely be non-consequential Procedure changes. However, since these changes have not been previously considered under the formal Rule change process, the changes will be logged and addressed by the Procedure Change Committee after the Transition.

Table 3 – Consultation Program for the Transition

Step	Date	Process
(38)	01/09/16	<ul style="list-style-type: none"> The AEMO Board endorsed REMCo submitting Rule Change C02/16C to the Authority, and agreed to submit a letter to the Authority indicating that AEMO: <ul style="list-style-type: none"> fully supports and consents to REMCo's application for Rule Change C02/16C; and look forward to assuming the role of the market operator in WA, and operating the WA gas retail market in accordance with the purposes set out in section 11ZOB of the Act.

(6) Implementation Timing

REMCo would like to implement Rule Change C02/16C on 31 October 2016.

This timing has been selected because October/November is a relatively low-activity period in the WA gas retail market (lower gas flow and fewer customer transfers), and is therefore the optimal time to implement the Transition, prior to the December/January holiday season. Any delay past November 2016 will likely increase costs and require both REMCo and AEMO to re-plan the transition program and agree to a new effective date that would be post 2016, and would create uncertainty in the market.

As a result, REMCo would appreciate it if the Authority could consider, approve, and publish the approval for Rule Change C01/16R in the *Gazette* prior to 31 October 2016. Given the complex nature of the changes under Rule Change C02/16C, it would greatly assist REMCo, AEMO and the market if the Authority could consider and publish the approval in the first two weeks of October 2016.

The secretariat of the Authority has advised REMCo that it may conduct a further consultation process on Rule Change C02/16C, in addition to the extensive and exhaustive consultation program listed in section (5) above. If so, then the Authority would likely not be able to meet the approval timing desired by REMCo, AEMO and the market participants.

In this case, REMCo and AEMO would appreciate early advice of the Authority's timeline for processing this application, including the consultation process, decision timing, and Gazettal of the implementation date. REMCo and AEMO will require some lead time prior to the implementation date to make changes to the market processes, websites, contact information, etc. REMCo and AEMO will take steps to minimise this lead time, but changes of this nature typically require 10-15 business days to implement.

(7) Approval Criteria

Section 11ZOO of the Act specifies the criteria that the Authority is to consider in determining whether to approve an amendment to the Scheme. Table 4 lays out the criteria that the Authority is to consider under section 11ZOO of the Act, and provides REMCo's commentary as to why it believes these criteria have been met for Rule Change C02/16C.

Table 4 – Approval Criterial for C02/16C – AEMO Transition

Section	Requirement	REMCo Comment
11ZOO(1)	The Authority may approve an amendment to the Scheme if it is satisfied that:	
	(a) if the amendment is made, the provisions of the Scheme:	
	(i) will comply with the Act; and	<p>The Scheme, in its initial form, was approved by the Minister for Energy; and all amendments to the Scheme since its initial approval have been approved by the Authority, in accordance with the Act. As a result, the Scheme, in its current form, clearly complies with the Act.</p> <p>Section 11ZOF of the Act lays out the elements of a Scheme. As indicated in Table 2 above, the Scheme will continue to have all of the required elements if Rule Change C02/16C is approved.</p> <p>Section 11ZOG of the Act indicates the requirements for the Rules.¹⁰ As indicated in section (3) of this application, Rule Change C02/16C will result in a significant number of minor changes to the Rules, Specification Pack, and Hub T&Cs to enable the Transition; none of which will impact the compliance of the revised Scheme to the Act.</p> <p>There will be three significant changes to the Scheme:</p> <ul style="list-style-type: none"> • replacing the REMCo Constitution with the WAGRMA. • changing some aspects of Chapter 6 of the Procedures (Compliance and Interpretation); and • changing some aspects of Chapter 9 of the Procedures (the Procedure Change Process).

¹⁰ Section 11ZOG(1) of the Act indicates that Rules are to set out the market systems, practices, procedures and processes; and the rights and obligations of the Retailers, Network Operators and gas customers that are to be in place to achieve the purposes set out in section 11ZOB of the Act. Section 11ZOG(2) of the Act indicates that Rules are to set out:

- | | |
|---|--|
| <ul style="list-style-type: none"> • the roles and functions of Retailers and Network Operators; • the transfer of customers between Retailers; • the collection, management, use of, and access to metering data; • gas balancing, allocation, and reconciliation; | <ul style="list-style-type: none"> • the keeping, retention and auditing of records; • the Rule change process; • dispute resolution; and monitoring and enforcement of Rules compliance; and • any other matter that is prescribed. |
|---|--|

Table 4 – Approval Criteria for C02/16C – AEMO Transition

Section	Requirement	REMCo Comment
		<p>While these more significant changes will impact the form of the “agreement” and the nature of the Rule change and Rule compliance processes; these arrangements will continue to exist, and will be in a form agreeable to all market participants.</p> <p>As a result, REMCo is of the view that the Scheme will continue to comply with the Act if Rule Change C02/16C is approved.</p>
	(ii) be suitable for the purposes of section 11ZOB;	<p>Section 11ZOB of the Act indicates that the purpose of the Scheme is to ensure that the retail gas market is regulated and is operated in a manner that is:</p> <ul style="list-style-type: none"> (a) open and competitive; (b) efficient; and (c) fair to gas market participants and their customers. <p>Approving Rule Change C02/16C will enable the Transition, which will allow AEMO to commence WA gas retail market operation.</p> <p>As indicated above, Rule Change C02/16C will result in a large number of minor changes to the Scheme, none of which will impact the ability of the Scheme to meet the criteria in section 11ZOB of the Act; and three more significant changes to the Rules.</p> <p>The impact of Rule Change C02/16C is outlined in sections 5 and 6 of the relevant IIR (see Attachment 5), and include:</p> <ul style="list-style-type: none"> • responsibility for operating the WA gas retail market will transfer from REMCo to AEMO; • there will be no impact on Pipeline Operators, Shippers or Swing Service Providers; • changes to the Procedure compliance process have been designed to increase independence of the process without negatively impacting on efficiency of the process; • changes to the Procedure change process have been designed to increase the efficiency of the process without impacting on the independence of the process; • there will be potential reduced costs from Rule Change C02/16C due to expected efficiency gains relative to not proceeding with the Transition;

Table 4 – Approval Criterial for C02/16C – AEMO Transition

Section	Requirement	REMCo Comment
		<ul style="list-style-type: none"> • WA gas retail market costs will be ring-fenced, so there will be no cross-subsidisation between the WA gas retail market and any of the other markets operated by AEMO; • AEMO will be able to spread overhead costs across all markets and seek efficiencies in operating multiple markets, with potentially significant gains in systems operation; • transferring responsibility for operating the WA gas retail market to AEMO should have little impact on market operations because AEMO: <ul style="list-style-type: none"> ○ already provides market operations support to REMCo and operates the FRC Hub for WA gas retail market communications; ○ is a large and well-resourced market operator with significant experience in gas retail market operations; • the interests of small Retailers and Self-Contracting Users has been protected by ensuring that AEMO: <ul style="list-style-type: none"> ○ can charge lower fees to these market participants, and ○ must make the low-volume interface available to these market participants. <p>Therefore, REMCo is of the view that, by enabling the Transition, Rule Change C02/16C is likely to improve the ability of the Scheme to meet the purposes of a Scheme under section 11ZOB of the Act.</p>
	(b) any other principle, criterion, or requirement that is prescribed for the purposes of this paragraph has been met.	There are no regulations under section 11ZOO(b) of the Act, so this section of the Act is not applicable.
11ZOO(2)	<p>The Authority may approve an amendment to the Scheme under section 11ZOM only if it is satisfied that the consultation required by section 11ZOL(3) has taken place and:</p> <p>(a) each person required to be consulted has agreed to the amendment; or</p> <p>(b) if any person required to be consulted has not so agreed, that person has been given a</p>	<p>REMCo submitted the PRC for Rule Change C02/16C to the Committee for consideration on 29/06/16 (see Table 3, Step (26)); and the Committee subsequently unanimously agreed by e-mail to proceed with Rule Change C02/16C as a high-impact Rule Change (see Table 3, Step (29)).</p> <p>REMCo then published a Notice of Consultation and the PRC for Rule Change C02/16C on 13/07/16 (see Table 3, Step (30)), inviting market participants to lodge submissions. The consultation window closed on 27/07/16 and REMCo did not receive any objections (see Table 3, Step (31)).</p>

Table 4 – Approval Criterial for C02/16C – AEMO Transition

Section	Requirement	REMCo Comment
	<p>reasonable opportunity in the course of consultation to provide reasons for not agreeing, and any reasons so provided have been considered.</p>	<p>In accordance with Rule 400(1), REMCo published a second Notice of Consultation and the IIR on 29/07/16 (see Table 3, Step (34)), inviting market participants to lodge submissions. The consultation window closed on 26/08/16; and REMCo received four submissions supporting Rule Change C02/16C, and no objections (see Table 3, Step (36)).</p> <p>Under Rule 400(7), if by the end of the consultation period REMCo has not received any objections, then the Committee must recommend to REMCo that it submit the Rule Change to the Authority for approval, as if it were made under Rule 396A.</p> <p>As a result, REMCo submits that it has met all of the consultation requirements for Rule Change C02/16C, and that each person required to be consulted has agreed to the amendment.</p> <p>REMCo undertook a lengthy and rigorous consultation program for Rule Change C02/16C, far beyond the consultation requirements outlined in the Rules, as indicated in section (5) above:</p> <ul style="list-style-type: none"> • REMCo consulted with all market participants (i.e. all Retailers and Network Operators) as required by the Rules; • REMCo also consulted with all other parties that it could identify that could be impacted by Rule Change C02/16C, including: <ul style="list-style-type: none"> ○ Government; ○ AEMO; ○ a consumer representative of (the CCIWA); ○ all Self-Contracting Users; ○ all Pipeline Operators; • the WA Government supports the Transition; • all market participants support the Transition; • REMCo did not receive any objections to Rule Change C02/16C; • REMCo received submissions supporting Rule Change C02/16C from the following four parties (see Attachments 19 to 22): <ul style="list-style-type: none"> ○ Alinta;

Table 4 – Approval Criterial for C02/16C – AEMO Transition

Section	Requirement	REMC0 Comment
		<ul style="list-style-type: none"> ○ Kleenheat; ○ Synergy; and ○ the PUO. • REMCo was informed by the following parties that they did not have any objection to Rule Change C02/16C: <ul style="list-style-type: none"> ○ APTFM; ○ APTP; ○ ATCO; ○ the CCIWA; and ○ Perth Energy. • REMCo understands that AEMO will submit a letter directly to the Authority in support of Rule Change C02/16C.



Retail Energy Market Company

GAS MARKET ISSUE – SUMMARY SECTION

(For Proponent or REMCo to complete. Template focuses on issue identification and impact.)

Issue Number	186		
Version #	5 (updates from v4 indicated in track change mode)		
Impacted jurisdiction(s)	WA		
Proponent	Stephen Eliot	Company	REMCo
Proponent e-mail	stephen.eliot@remco.net.au	Proponent phone #	(08) 6212 1829
Date lodged with REMCo	4 April 2016 (updates from 20/07/16)		
Short issue title	AEMO Transition		
Other key contact information			

This version of the GMI was tabled at the Rule Change Committee for discussion at its meeting on 29/08/16. The text in grey italics is from the original GRM, dated 04/04/16, and the track change text indicates updates as of 20/07/16.

Some text has been redacted from this document that, as of 02/09/16, is no longer accurate or is part of confidential discussions between REMCo and third parties.

GAS MARKET ISSUE – DETAILED REPORT SECTION

<p>1. Description of issue</p>	<p><i>The REMCo Board and the Australian Energy Market Operator (“AEMO”) have agreed in principle that REMCo and the WA gas retail market are to be transitioned into AEMO (the “Transition”).</i></p> <p><i>At its meetings on 04/02/16 and 24/03/16, the REMCo Board decided on a preferred timeline for the Transition to be completed in October 2016. The REMCo Members have unanimously supported the Transition and the Board’s preferred timeline.</i></p> <p><i>The Public Utilities Office (“PUO”) and the Minister for Energy’s office have indicated that they are generally supportive of the proposition for the Transition and the preferred timeline, so long as it does not impact the Electricity Market Review. The PUO has reviewed the legislative regime and has agreed with REMCo’s interpretation of how the Transition can be accomplished, and will respond to REMCo with any:</i></p> <ul style="list-style-type: none"> <i>• questions or concerns with the Transition proposal; and</i> <i>• matters that the PUO want addressed in working out the details of the Transition.</i> <p><i>REMCo and AEMO have commenced discussions on the details of the Transition with a go-live in October 2016. Attachment A to this Gas Market issues (“GMI”) paper outlines the issues being discussed and indicates the matters that the Rule Change Committee (“RCC”) will need to consider.</i></p>
<p>2. Reference documentation</p> <ul style="list-style-type: none"> • Retail Market Rules; • Business/Information Specification Pack Reference; and/or • Other Reference 	<ul style="list-style-type: none"> • Attachment A – Summary of Issues; • Attachment B – WA Gas Retail Market Agreement; • Attachment C – Retail Market Rules (the “Rules”); • Attachment D – Specification Pack; • Attachment E – FRC Hub Operational Terms and Conditions (the “Hub T&Cs”); • Attachment F – Information Pack; • Attachment G – other market documentation; and • Attachment H – Scheme Documentation Change Checklist.
<p>3. Specific Proposal</p>	<p><i>The RCC needs to develop the necessary changes to the Rules, Specification Pack, Hub T&Cs, Information Pack, and other market documentation (the “Scheme Documentation”) to enable the Transition. This will then allow REMCo to apply to the Economic Regulation Authority (the “Authority”) for approval to convert the “REMCo Scheme” into the “AEMO Scheme” with a go-live in October 2016.</i></p> <p><i>Attachment H provides a checklist of the Scheme Documentation changes, including an indication of who is responsible for developing and approving the changes, and the current status of each document.</i></p>

	<p><u>The goal for the RCC meeting on 29/08/16 is to:</u></p> <ul style="list-style-type: none"> <u>review and agree to the WA Gas Retail Market Compliance Panel Guidelines;</u> <u>review and agree to the WA Gas Retail Market Compliance Guidelines (AEMO);</u> <u>review and agree to the Overview Guide to the WA Gas Retail Market;</u> <u>review and agree to the Technical Guide to the WA Gas Retail Market; and</u> <u>agree next steps to keep progress on the Transition project.</u>
4. Consequences	<i>Failure to develop the necessary changes to the Scheme Documentation in a timely manner will delay the application to the Authority for approval of the Scheme changes, which may in turn delay the preferred go-live in October 2016.</i>
5. Likely benefits for industry as a whole	<i>The RCC is to develop the necessary Scheme documentation changes to allow AEMO to smoothly take up all WA gas retail market operations with no interruptions, no change in quality of service, and no increased costs to the WA gas retail market. This will allow consolidation of all energy market operations in the AEMO, with the expected cost saving to the market, and will address the risks associated with operating REMCo as a stand-alone market operator.</i>
6. Process Impact	<p><i>The intention is to make minimal Scheme documentation changes to enable the Transition – see Attachments B to G. This will allow the Transition to occur with minimal (hopefully no) changes to market systems and processes, or to market participants' systems and processes.</i></p> <p><i>The intention is for REMCo to hand the Gas Retail Market Systems ("GRMS") to AEMO upon the Transition go-live date, and to transfer the Systems Operations Services Agreement ("SOSA") to AEMO so that CGI will continue to operate the WA GRMS for AEMO.</i></p>
7. Impact of issue not proceeding <ul style="list-style-type: none"> impact on market; impact on participants; impact on end-users. 	<i>See section 4 above.</i>
8. Supporting Documentation	<i>See Attachments A to H.</i>
9. Any critical timelines to consider?	<i>The REMCo Board and AEMO have decided that the Transition to occur in October 2016. A high-level timing for the transition is listed below.</i>

TIMELINE FOR TRANSITION		
Category	Step	Timing
Round 2 Consultation	(1) Close Round 2 Consultation	26/08/16
ERA Application	(2) REMCo Board to approve the application	23/08/16
	(3) REMCo to lodge the application with the Authority	02/09/16
	(4) Authority approval and Gazettal	
Contractual Matters	(5) AEMO and Scheme Participants to execute the WAGRMA	
	(6) REMCo and AEMO to execute the Transition Deed	
Go-Live		31/10/16

GAS MARKET ISSUE – ATTACHMENT A – SUMMARY OF ISSUES

REMCo currently operates the WA gas retail market as an approved “Scheme” under Part 2B of the Energy Coordination Act 1994 (the “Act”). The intention is for AEMO to continue to operate the WA gas retail market using this governance arrangement. The WA Government has concurred with the concept of this approach and has the same interpretation of the Act as REMCo.

The easiest way to implement the Transition within the current governance arrangements will be for REMCo to apply to the Authority for approval to convert the “REMCo Scheme” into the “AEMO Scheme”. To accomplish this, REMCo and AEMO will need to agree on several items, including:

- the agreement between gas retail markets participants (see attachment B);
- the amendments to the Scheme documentation (see attachments C to G); and
- a number of other commercial and regulatory matters (to be discussed and agreed by REMCo and AEMO).

REMCo and AEMO have working on a Transition program to finalise the details of the Transition, which will cover the following items:

(1) AEMO membership:

- All of REMCo Members will need to become AEMO Members upon completion of the Transition. REMCo understands that AEMO will seek amendments to its Constitution to make WA gas retail market participants eligible for AEMO membership upon completion of the Transition.

Closed:

AEMO held a Special General Meeting of its Members on 01/06/16 where it approved several changes to the AEMO Constitution to (amongst other things):

- allow REMCo Members to apply to become AEMO Members; and
- change the AEMO Objects to allow operation of the WA gas retail market by AEMO.

This addresses Issues (1) and (3) – see below.

REMCo Members will now be eligible to apply to become AEMO Members upon signing the WAGRMA. AEMO will contact REMCo Members prior to signing about becoming AEMO Members.

(2) The agreement between members:

- The Act requires that all Schemes have an agreement between all of the Members to bind the Members and the Market Operator to the Scheme arrangements. This is currently accomplished by the REMCo Constitution, and will need to be replaced with a “WA Gas Retail Market Agreement” upon the Transition. REMCo and AEMO will soon commence negotiating terms for the WA Gas Retail Market Agreement (see attachment B); and then REMCo will:
 - apply to Authority for this amendment to the REMCo Scheme; and
 - coordinate execution of the agreement by AEMO and the REMCo Members.

Open:

See Attachment B for an update.

(3) REMCo and AEMO Member acceptance:

- Both the REMCo and AEMO Constitutions require their Members to agree to major transactions, such as the Transition, and so the Transition will need to be approved at a

General Meeting of REMCo (and potentially also AEMO). REMCo and AEMO will need to coordinate these approvals.

Closed:

REMCo held an Extraordinary General Meeting (“EGM”) on 25/07/16. Four of REMCo’s five Members attended the EGM (Perth Energy was an apology), and the attending Members unanimously approved the Transition, subject to

- approval by the ERA of the changes to the Scheme Documentation; and
- agreement by the REMCo Board to the terms of the Transition Deed.

AEMO Member Acceptance of the Transition is not required as a result of the change to the AEMO Constitution – see item (1) above.

(4) REMCo Scheme amendment:

- A number of amendments will need to be made to the REMCo Scheme Documentation. The RCC will be charged with developing the changes to the Scheme Documentation for approval by the Authority using the standard Rule change process. Further information on the changes that need to be made to the Scheme are outlined in Attachments B to F, and a checklist is provided in Attachment H.

Open:

See the updates in attachments B-F.

(5) AEMO vs REMCo Objects:

- The AEMO and REMCo Objects are specified in the AEMO and REMCo Constitutions; and while the Objects of the two companies are broadly consistent, there are a number of REMCo’s Objects that are specific to the WA gas retail market, and the REMCo Board and the WA Government may want these Objects to continue to guide operation of the WA gas retail market following the Transition. As a result, the REMCo Objects may need to be inserted into either the WA Gas Retail Market Agreement or the Rules.*

Closed:

The new clause 7A has been inserted into the Procedures v1.

(6) Budget and fee setting:

- The REMCo Board is seeking further clarity and assurance from AEMO on how it currently sets its budget and fees, and on how these processes will work for the WA gas retail market following the Transition. The REMCo Members need to understand the likely path of WA gas retail market fees following the Transition.*

Open:

Subject to Board approval, AEMO will use the REMCo 2016/17 budget and fees, and will develop a budget for 2017/18 forward, using its formal budget process. Costs for WA gas retail market operations will be ring-fenced, and any operating and capital cost savings will be reflected in the budget from 2017/18 forward.

(7) Resourcing, management, and KPIs for the WA gas retail market:

- The REMCo Board is seeking further information from AEMO on how it manages its markets, and will seek assurances on how the WA gas retail market will be managed after the Transition to ensure there is no degradation in service.*

Open:

The REMCo Board decided that it would like the Transition Deed to reflect that AEMO is to:

- (a) [REDACTED]
- (b) [REDACTED]
- (c) [REDACTED]
- (d) [REDACTED]
- [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- [REDACTED]
- [REDACTED]

(8) IT management:

- The intention will be for REMCo to hand the GRMS to AEMO upon the Transition, and to transfer the SOSA to AEMO so that CGI will continue to operate the GRMS for AEMO.
- REMCo has provided its Board-endorsed IT Plan to AEMO and will provide cash from the REMCo Infrastructure Fund to AEMO to fund upgrades to GRMS on the basis that AEMO maintains the GRMS in accordance with the IT Plan.

Closed:

[REDACTED]

(9) *Matters impacting small users:*

- *REMCo needs to ensure that the interests of small users are protected, including:*
 - *ensuring that the low-volume interface (“LVI”) remains in place following the Transition; and*
 - *ensuring that AEMO Membership and fee arrangements are not a barrier to entry for self-contracting users (“SCUs”).*
- *REMCo will discuss these matters with AEMO and may need to address these matters in the amendments to the Scheme documents and/or the WA Gas Retail Market Agreement.*

Closed:

A requirement on AEMO to make the LVI available to small users (including SCUs) has been inserted into the Specification Pack.

A change is being made to clause 362A of the Procedures to give AEMO discretion to charge lower fees to small users and SCUs, including discretion on which users can be

[charged a lower fee, and how much lower the fee should be \(see Attachment B for more information\).](#)

(10) *Legal issues:*

- *REMCo and AEMO will seek legal advice to ensure all legal matters associated with the Transition are addressed, including the transfer/termination of REMCo's various contracts, and any requirements under the Corporations Act.*

Open:

[REMCo and AEMO have agreed in principle that the Transition Deed will reflect the following treatment of the REMCo existing contacts at Transition:](#)

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

(11) *Winding up REMCo:*

- *The REMCo Board will determine its preferences for winding up REMCo, including how to handle REMCo's cash holdings upon the Transition.*

Open:

[Consideration of matters relating to the wind-up of REMCo will commence at a later date.](#)

GMI – ATTACHMENT B – WA GAS RETAIL MARKET AGREEMENT

The second round of consultation on the WA Gas Retail Market Agreement (“WAGRMA”) commenced on 29/07/16 and will close on 26/08/16. All documentation on the retail market scheme changes is available on the REMCo website on:

<http://www.remco.net.au/rule-change-notice>

As outlined in Attachment A, the primary role of the WA Gas Retail Market Agreement will be to act as the agreement between gas retail market participants, as required by the Act.

Clause 16 of the REMCo Constitution currently acts as the agreement between gas retail market participants by requiring:

- *REMCo to operate the WA gas retail market in accordance with the Rules; and*
- *REMCo and all if its Members to be bound by the Rules and to abide by any determination made by the Compliance Panel.*

The WA Gas Retail Market Agreement will play this role for the AEMO Scheme – it will be an agreement between the gas retail market participants to require:

- *AEMO to operate the WA gas retail market in accordance with the Procedures; and*
- *AEMO and all WA gas retail market participants to be bound by the Procedures and to abide by any determination made by the Compliance Panel (or by any replacement compliance regime).*

The WA Gas Retail Market Agreement may also be used to address other transitional or commercial matters required for the Transition, such as those listed in items (6) through (11) in Attachment A.

The WA Gas Retail Market Agreement will be negotiated by REMCo and AEMO at an executive level and will then be tabled at the RCC for information (potentially excluding any confidential information). REMCo will meet with the ERA to discuss any questions with the agreement before the Scheme amendments are submitted to the ERA for approval.

GMI – ATTACHMENT C – RULE CHANGES

The second round of consultation on all of the changes to the retail market scheme to enable the Transition commenced on 29/07/16, and will conclude on 26/08/16 – see the timeline on page 4 for details on the process. All documentation on the retail market scheme changes is available on the REMCo website on:

<http://www.remco.net.au/rule-change-notice>

The changes that will need to be made to the Rules are listed below.

REMCo will circulate a track change version of the Rules to the RCC on 22/04/16 with the changes listed below for review and comment. The RCC will be asked at its meeting on 20/04/16 to indicate how much time they will need for this review.

General Changes to the Rules:

- *All references to “REMCo” will be replaced with references to “AEMO”.*
- *AEMO is subject to governance under the “National Gas Rules”, and so the AEMO equivalent to the REMCo “Retail Market Rules” are “Retail Market Procedures”. As a result, the WA Gas Retail Market Rules will be converted into the WA Gas Retail Market Procedures. To achieve this, all references to “rules” will be replaced with references to either “procedures” or “clause”, as required by context.*
- *The “Introduction” will be updated to reflect the conversion of the REMCo Scheme into the AEMO Scheme.*
- *Correct and minor typographic and formatting errors (this will not be tracked).*
- *The cover page and footers will be changed to reflect AEMO branding (this will not be tracked).*
- *The version control will be re-set to refer to version 1 of the WA Gas Retail Market Procedures (this will not be tracked).*
- *Changes will not generally be made to clause numbering. This means that the procedures will continue to have several clauses with no content, but will avoid referencing problems.*

Changes to Chapter 1 (Interpretation and Administration):

- *Changes to definitions (clause 2):*
 - *Delete the definition of REMCo and insert a definition of AEMO.*
 - *Reorder definitions, as needed, to reflect use of the term “AEMO” rather than “REMCo”.*
 - *Review the definitions of “Access Arrangement”, “National Gas Access (Western Australia) Law”, and “network” because legislative changes are being developed to enable regulatory oversight of the ATCO distribution system by the Australian Energy Regulator (“AER”) rather than the Authority.*
 - *Fix the referencing errors in the definitions of “anticipated annual consumption”, “anticipated annual consumption”, and “verification” so that it refers to Appendix 2 (no reference to a specific sub-section of Appendix 2).*
 - *Review whether the definition of “Delivery Point Identifier” is still required.*
 - *Define the “go-live date” as 31 October 2016.*
 - *Insert a definition for the “WA Gas Retail Market Agreement” – see item (2) in Attachment A to this GMI paper.*
- *A new clause may need to be inserted into Chapter 1 to define the “Objects” of WA gas retail market operation – see the item (5) under Attachment A to this GMI paper.*

Changes to Chapter 5 (Allocation, Reconciliation and Swing):

- Rule 171A – delete the obsolete reference to “farm tap” in the heading.
- Rule 175 – this Rule specifies four types of gate point control systems, two of which were developed specifically for the SA market and have never been used in WA – “flow ratio control” and “market responsive flow control”.
 - Market participants are asked whether the Rules should continue to provide these options, or whether either or both should be deleted.
 - There will be flow-on effects if either of these gate point control systems are deleted, which will need to be reviewed in detail, and will include:
 - For “flow ratio control” – the definition of flow ratio control will need to be deleted from Rule 2; and Rules 176(2), 176(3), 176(4), and 176(6) will need to be deleted.
 - For “market responsive flow control” – the definition of market responsive flow control will need to be deleted from Rule 2; and Rules 176(1) and 199(a)(i) will need to be deleted.
 - Deletion of these gate point control systems would impact pipeline operators, and so they will need to be consulted if market participants want these options deleted.
- Rule 281 – there is a note to the effect that a new Rule 281(4)(a)(ii) is to be developed after go-live (i.e. after 31/03/04). However, this has not been done in the first 12 years of operations. Market participants are asked whether the new rule 281(4)(a)(ii) is still needed, or should the note be deleted?
- Rule 308 – is about a review of Chapter 5. Rule 308(1) is spent – it required a review of the swing service mechanism at 6 months, 18 months, and 3 years after go-live (i.e. after 31/03/04). Market participants are asked whether this rule should be deleted, noting that Rule 17 already requires a review of the Rules every 5 years; or whether a new review should be inserted, perhaps at 2 years from the new go-live date.

Changes to Chapter 6 (Compliance and Interpretation):

- AEMO will need to consider whether it will accept the existing compliance process specified in the Rules, and in particular, the role of the REMCo Board, which will become a role for the AEMO Board after the Transition.
 - AEMO has indicated that it does not want its Board to have a role in the WA gas retail market compliance process.
 - However, the REMCo Board and Members have indicated a preference to continue using the existing REMCo compliance process for the “interim period” until the compliance process is established for the WA electricity retail market, and then align the compliance processes for the WA gas and electricity retail markets.
 - If AEMO agrees to use the existing REMCo compliance process in the interim period, then no unique changes are needed to Chapter 6 of the Rules (other than those listed under “General Changes to the Rules”).
 - If AEMO does not agree to use the existing REMCo compliance process for the interim period, then the RCC and AEMO will need to develop and agree changes to the REMCo compliance process to make it work:
 - Sections 6.1 and 6.2 relate to establishing and conferring power on the Compliance Panel, and it is likely that no changes will be needed to these sections of the Rules, (other than those listed under “General Changes to the Rules”).
 - Section 6.3 relates to the role of REMCo in the compliance process, and will place responsibilities on AEMO and the AEMO Board upon go-live. This section will likely need substantial change.
 - Section 6.4 places responsibilities on both REMCo (AEMO after go-live) and the Compliance Panel, and will also likely need substantial change.

- In either case, Chapter 6 will need to be replaced upon go-live of electricity FRC in WA (currently scheduled for 1 July 2018). Since AEMO will have responsibility to develop the WA Electricity Retail Market Procedures, the AEMO will be well placed to coordinate aligning the WA gas and electricity compliance processes.

Changes to Chapter 9 (Rule Change Process):

- The intention is to make use of REMCo's existing Rule change process for any changes to the Scheme.
 - The proposal is to make no substantive changes to the Rule change process in Chapter 9 of the Rules, to continue to use the "Rule Change Committee Charter", and to continue to use the Rule Change Procedures".
 - The only necessary changes to Chapter 9 of the Rules are those listed under "General Changes to the Rules".

Changes to Appendix 1 (Coding of Gas Zones and Gate Points):

- Remove the superfluous heading on page 1 and the reference to Appendix 1.2.

Changes to Appendix 2 (Estimation and Verification Methodology):

- Remove the superfluous heading on page 1 and delete the text "There is no Sub-Appendix 2.2" on the last page.

Changes to Appendix 7 (Swing Service Umbrella Deed [SSUPD]):

- Reorder the definitions, as needed.

Changes to Appendix 11 and 12:

- Appendices 11 and related to SA market operations and are no longer needed – delete these appendices (this is acceptable because it will have no impact on numbering in the rest of the Rules).

Other parts of the Rules:

- No unique changes (other than those listed under "General Changes to the Rules") to:
 - Chapter 2 (The Databases);
 - Chapter 3 (MIRN Transactions);
 - Chapter 4 (Metering);
 - Chapter 7 (Reporting and Audits);
 - Chapter 8 (Administration);
 - Chapter 10 (General Provisions);
 - Appendix 4 (Auditor's Deed and Undertaking);
 - Appendix 5 (Calculations, Rounding and Units);
 - Appendix 6 (Requirements for Explicit Informed Consent);
 - Appendix 8 (Terms and Conditions for Swing Service Provider of Last Resort);
 - Appendix 9 (Fallback User-Shipper Arrangement); and
 - Appendix 10 (Swing Service Causation Compensation Terms).

GMI – ATTACHMENT D – SPECIFICATION PACK CHANGES

The second round of consultation on all of the changes to the retail market scheme to enable the Transition commenced on 29/07/16, and will conclude on 26/08/16 – see the timeline on page 4 for details on the process. All documentation on the retail market scheme changes is available on the REMCo website on:

<http://www.remco.net.au/rule-change-notices>

The Specification Pack applies in both WA and SA, and is drafted in a generic way to apply in both jurisdictions, with minimal WA-only and SA-only sections. The intention for the Transition is:

- *for REMCo to hand the GRMS to AEMO upon the Transition go-live date;*
- *to transfer the SOSA to AEMO so that CGI will continue to operate the GRMS for AEMO; and*
- *to make minimal changes to the Specification Pack to enable the Transition to occur.*

The objective is to make minimal (hopefully no) changes to the market systems and processes, or to the market participants' systems and processes.

The Specification Pack documents will need to be updated to refer to AEMO rather than REMCo, and to refer to the Retail Market Procedures rather than the Retail Market Rules. AEMO will review the Specification Pack to determine whether any other consequential changes are needed, and will draft updated versions of all of the Specification Pack documents, with all changes marked in track change mode.

REMCo will then table the track changes versions of all of the Specification Pack documents with the RCC for review and consideration (timing to be determined).

The Specification Pack documents that need to be reviewed and updated to enable the Transition are:

- (1) *Specification Pack Usage Guidelines;*
- (2) *Interface Control Document;*
- (3) *FRC B2B System Interface Definitions;*
- (4) *FRC B2M-B2B HUB System Specifications;*
- (5) *FRC B2M-B2B Hub System Architecture;*
- (6) *FRC CSV Data Format Specification;*
- (7) *Connectivity Testing and Technical Certification;*
- (8) *Readiness Criteria;*
- (9) *B2B Service Order Specification Part 1;*
- (10) *B2B Service Order Specification Part 2; and*
- (11) *The complete set of aseXML schemas and examples (this document is listed as being part of the Specification Pack but does not appear to be on the AEMO website).*

GMI – ATTACHMENT E – HUB T&Cs CHANGES

The second round of consultation on all of the changes to the retail market scheme to enable the Transition commenced on 29/07/16, and will conclude on 26/08/16 – see the timeline on page 4 for details on the process. All documentation on the retail market scheme changes is available on the REMCo website on:

<http://www.remco.net.au/rule-change-notices>

As a result, it is possible (likely) that no changes will be needed to the Hub T&Cs to give effect to the Transition.

AEMO will review the Hub T&Cs to determine whether any changes are needed to enable the Transition; and if so, will draft an updated versions the Hub T&Cs, with all changes marked in track change mode.

REMCo will advise the RCC regarding the results of AEMO's review, and if changes to the Hub T&Cs are necessary, will table the track changes version of the Hub T&Cs with the RCC by for review and consideration (timing to be determined).

GMI – ATTACHMENT F – INFORMATION PACK CHANGES

CGI has completed a review of the Information Pack, and the RCC and REMCo Board have endorsed CGI's proposed changes. CGI has provided REMCo and AEMO with track-change and clean versions of the Information Pack documents. AEMO is finalizing its review the Information Pack, and any material changes that AEMO wants to make will be brought back to the RCC for consideration.

Otherwise, the Information Pack with the changes agreed so far will be uploaded to the AEMO website at go-live. The Information Pack is not part of the REMCo Scheme, so these changes do not require ERA approval.

The Information Pack applies in both WA and SA, and is drafted in a generic way to apply in both jurisdictions, with minimal WA-only and SA-only sections. The intention for the Transition is:

- *for REMCo to hand the GRMS to AEMO upon the Transition go-live date;*
- *to transfer the SOSA to AEMO so that CGI will continue to operate the GRMS for AEMO; and*
- *to make minimal changes to the Specification Pack to enable the Transition to occur.*

The objective is to make minimal (hopefully no) changes to the market systems and processes, or to the market participants' systems and processes. AEMO and/or CGI will review the Information Pack as follows:

<i>Document</i>	<i>Entity</i>	<i>Review Requirements</i>
(1) <i>Information Pack Usage Guidelines</i> (2) <i>FRC B2B Process Flow Diagrams</i>	<i>AEMO</i>	<ul style="list-style-type: none"> • <i>Refer to AEMO rather than REMCo;</i> • <i>Refer to the Retail Market Procedures rather than the Retail Market Rules;</i>
(3) <i>FRC B2M Process Flow and Sequence Diagrams</i> (4) <i>GRMS FTP User Guide</i> (5) <i>GRMS FTP Procedure Guide</i> (6) <i>Non-IT RMR communications</i> (7) <i>WA Profile Nominations Guideline</i> (8) <i>Changing your Password on the Participant Server</i> (9) <i>New Entrant GRMS Deliverables Information Sheet</i>	<i>AEMO and CGI</i>	<ul style="list-style-type: none"> • <i>Correct any contact information; and</i> • <i>Any other consequential changes necessary to reflect the changes being made to the Rule (see Attachment A).</i>
(10) <i>SAWA Business Specification</i>	<i>CGI</i>	<ul style="list-style-type: none"> • <i>Refer to AEMO rather than REMCo;</i> • <i>Refer to the Retail Market Procedures rather than the Retail Market Rules;</i> • <i>Correct any contact information;</i> • <i>Fix referencing errors;</i> • <i>Remove references to farm taps; and</i> • <i>Any other consequential changes necessary to reflect the changes being made to the Rule (see Attachment A).</i>
(11) <i>GRMS FTP Registration Form</i>	<i>AEMO and</i>	<ul style="list-style-type: none"> • <i>Correct the contact information.</i>

	<i>CGI</i>	
(12) <i>FRC Gas Hub Participant User Guide</i>	<i>AEMO</i>	<ul style="list-style-type: none"> <i>This document is listed as being part of the Information Pack and is located on the AEMO website with other Gas FRC Hub information.</i>

AEMO and CGI will draft updated versions of all of the Information Pack documents, with all changes marked in track change mode. REMCo will then table the track changes versions of all of the Information Pack documents with the RCC by for review and consideration (timing to be determined).

GMI – ATTACHMENT G – CHANGES TO OTHER MARKET DOCUMENTS

[An update on these items is provided in Attachment H.](#)

There are a number of other documents that are used by REMCo and market participants to manage the WA gas retail market. These documents will need to be updated to allow for the Transition as follows:

Document	Entity	Review Requirements
(1) GBOid Table	AEMO	<ul style="list-style-type: none">Update REMCo entry in the table.
(2) Rule Change Documents		
(a) RCC Charter	REMCo	<ul style="list-style-type: none">Replace references to REMCo with AEMO and update contact information.No changes to the Rule change processes.No changes to the RCC, TWG, and BLAST structures or functions.
(b) Rule Change Procedures		
(c) TWG Charter		
(d) BLAST Charter		
(e) GMI Template	AEMO	<ul style="list-style-type: none">Replace REMCo with AEMO and update contact information.
(f) PRC Template		
(g) I&IR Template		
(3) Compliance Documents		
(a) REMCo (Board) Compliance Procedures	REMCo	<ul style="list-style-type: none">Replace references to REMCo with AEMO and update contact information.Make any other necessary updates to reflect any changes to the compliance process. This will depend on resolution of the discussion of Chapter 6 of the Rules – see Attachment C.
(b) recommended REMCo Compliance Procedures		
(c) Rule Breach-Interpretation Notice Template	AEMO	<ul style="list-style-type: none">Replace references to REMCo with AEMO and update contact information.
(d) Pipeline Operator Informing of Special Circumstances Template		
(4) Training Documents		
(a) Overview of REMCo and the Retail Market Rules (slides)	REMCo	<ul style="list-style-type: none">Replace references to REMCo with AEMO and update contact information.Update documents to reflect any other changes to the Scheme documentation.
(b) Swing Service (slides)		
(c) Overview Guide to the Western Australian Gas Retail Market		

Document	Entity	Review Requirements
(d) <i>Technical Guide to the Western Australian Gas Retail Market</i>		

REMCo and AEMO will draft updated versions of the other market documents, with all changes marked in track change mode. REMCo will then table the track changes versions of the other market documents with the RCC for review and consideration (timing to be determined).

GMI – ATTACHMENT H – CHECKLIST OF SCHEME DOCUMENTATION CHANGES

Priority:

- changes to the documents in **blue text** need to be completed prior to go-live of the Transition; and
- it would be preferable to complete the document in **pink text** prior to go-live to the Transition, but these can be deferred until after go-live in necessary.

Checklist of Scheme Documentation Changes (as at 15/07/16)				
Area	Document	Responsibility	Approval	Status
Members Agreement	(1) WA Gas Retail Market Agreement	REMCo	Authority	
Rules	(1) WA Gas Retail Market Procedures	REMCo	Authority	
Specification Pack	(1) Specification Pack Usage Guidelines	AEMO	Authority	
	(2) Interface Control Document	AEMO/CGI	Authority	
	(3) FRC B2B System Interface Definition	AEMO	Authority	
	(4) FRC B2M-B2B Hub System Specifications	AEMO	Authority	
	(5) FRC B2M-B2B Hub System Architecture	AEMO	Authority	
	(6) FRC CSV Data Format Specification	AEMO	Authority	
	(7) Connectivity Testing and Technical Certification	AEMO	Authority	
	(8) Readiness Criteria	AEMO	Authority	
	(9) B2B Service Order Specification Part 1	AEMO	Authority	
	(10) B2B Service Order Specification Part 2	AEMO	Authority	
FRC Hub T&Cs	(1) FRC Hub Operational Terms and Conditions	AEMO	Authority	
Information Pack	(1) Information Pack Usage Guidelines	AEMO	REMCo Board	
	(2) WA Business Specification	CGI	REMCo Board	
	(3) FRC B2M Process Flow and Sequence Diagrams	AEMO/CGI	REMCo Board	

Checklist of Scheme Documentation Changes (as at 15/07/16)				
Area	Document	Responsibility	Approval	Status
	(4) FRC B2B Process Flow Diagrams	AEMO/CGI	REMCo Board	
	(5) GRMS FTP User Guide	AEMO/CGI	REMCo Board	
	(6) GRMS FTP Procedure Guide	AEMO/CGI	REMCo Board	
	(7) GRMS FTP Registration Form	AEMO/CGI	REMCo Board	
	(8) FRC Gas Hub Participant User Guide	AEMO	REMCo Board	
	(9) Non-IT RMR communications	AEMO	REMCo Board	
	(10) WA Profile Nominations Guideline	CGI	REMCo Board	
	(11) New Entrant GRMS Deliverables Information Sheet	CGI	REMCo Board	
	(12) Changing your Password on the Participant Server	CGI	REMCo Board	
Other	(1) GBOid Table	AEMO	REMCo CEO	<u>Complete – the RCC agreed to the revised versions of these documents at its meeting on 29/06/16 or 27/07/16. AEMO is putting the documents into the AEMO format (with no changes to content) and the revised versions will be uploaded to the AEMO website upon go-live of the Transition.</u>
	(2) Procedure Change Committee Charter	REMCo	REMCo Board	
	(3) Procedure Change Guidelines	REMCo	REMCo Board	
	(4) TWG Charter	REMCo	REMCo Board	
	(5) IIR Template	AEMO	REMCo CEO	
	(6) GMI Template	AEMO	REMCo CEO	
	(7) PPC Template	AEMO	REMCo CEO	
	(8) REMCo (Board) Compliance Guidelines	REMCo	REMCo Board	<u>These Guidelines are provided to the RCC for its review and acceptance at its meeting on 29/08/16.</u>
	(9) Recommended REMCo Compliance Panel Guidelines	REMCo	REMCo Board	
	(10) Procedure Breach Interpretation Notice Template	AEMO	REMCo CEO	<u>Complete – the RCC agreed to the revised version of this document at its meeting on 29/06/16. AEMO is putting the documents into the AEMO format (with no changes to content) and the revised versions will be uploaded to the AEMO website upon go-live of the Transition.</u>

Checklist of Scheme Documentation Changes (as at 15/07/16)				
Area	Document	Responsibility	Approval	Status
	(11) Swing Service Slides	REMCo	REMCo CEO	<u>REMCo has finalised a new “Basics of Swing Service” slide pack that was used for the training sessions in July/August 2016; and will convert the current Swing Service Slides into a set of “Advanced Swing Service” slides. AEMO will put these two slide packs into AEMO format and will post them on the AEMO website upon go-live of the Transition.</u>
	(12) Overview Slides	REMCo	REMCo CEO	<u>The RCC is asked to consider the need for the Overview Slides going forward given the existence of the Overview Guide. If the RCC wants these slides maintained, then REMCo and AEMO will update the slides, convert them to AEMO format, and post them to the AEMO website upon go-live of the Transition.</u>
	(13) Technical Guide	REMCo	REMCo CEO	<u>These Guides are provided to the RCC for review and acceptance at its meeting on 29/08/16.</u>
	(14) Overview Guide	REMCo	REMCo CEO	
	(15) The complete set of aseXML schemas and examples	ASWG	ASWG	<u>Complete – the RCC has been agreed that no changes are to be made to the aseXML schema.</u>

Retail Energy Market Company

RULE CHANGE – REQUEST FOR SUBMISSIONS UNDER RULE 398(2)

C02/16C – REMCo-AEMO Transition

C03/16R – Changes to Explicit Informed Consent Requirements

Introduction

Under the delegation of the REMCo Board, on 29 June 2016, the Rule Change Committee (the “Committee”) endorsed High Impact Rule Changes C02/16C and C03/16R.

REMCo is seeking submissions on these high impact Rule Changes as required under Rule 398(2) of the Retail Market Rules (the “Rules”).

How to make a Submission on the Endorsed Rule Change

As provided under Rule 398(2), any participant (i.e. user or network operator), pipeline operator, prescribed person (i.e. self-contracting user, shipper or swing service provider) or interested person may lodge an objection to either or both of the high impact Rule changes within the objection period. A submission under this Rule must include the reasons for the objection; specify whether the submitter considers the Rule change(s) to be non-substantial, low impact or high impact; and include reasons for this classification.

If no objections are received from a participant, pipeline operator, prescribed person or other interested person by the end of the objection period (specified below), under Rule 398(6), the Committee must recommend to REMCo to endorse or reject the high impact Rule Changes.

If endorsed, under Rule 400(1), REMCo must notify and seek submissions from each participant, pipeline operator, prescribed person and interested person on the endorsed high impact Rule changes within a 10 business day objection period. Under Rule 400(3), if no submissions are received by the end of the submission period, the Committee must recommend to REMCo that it treat the Rule Changes as low impact, and REMCo must submit the Rule Changes to the Economic Regulation Authority for approval.

If you would like to raise an objection, please provide your submission, quoting the reference number(s) C02/16C and/or C03/16R, to:

By e-mail to: remco_administration@aemo.com.au; and
stephen.eliot@remco.net.au.

Or by mail to: REMCo Rule Change
C/- AEMO
GPO Box 2008
Melbourne
VIC 3001

End of Objection Period:

Objections must be received by REMCo no later than **5:00 PM AEST, on Wednesday 27 July 2016**.

Background Information

1. The REMCo-AEMO Transition (C02/16C)

REMCo tabled a Gas Market Issues paper regarding C02/16C for consideration at the Committee meeting on 26 June 2016. The Committee endorsed C02/16C as a high impact Rule change by e-mail on 11 July 2016.

REMCo and AEMO are working on a program to transition responsibility for WA gas retail market operations from REMCo to AEMO, with a target transition date of 31 October 2016.

Changes will need to be made to the REMCo Retail Market Scheme documentation to enable this transition and to create the AEMO Retail Market Scheme. Links are provided to the following documents:

- A “Proposed Rule Change” (PRC) paper for C02/16C:
 - This document explains the rationale for the transition and summarises what changes will be made.
- The draft WA Gas Retail Market Agreement (“WAGRMA”) :
 - The WAGRMA will replace the REMCo Constitution as the “Agreement” between the market operator and the market participants to bind AEMO and the market participants to the AEMO Retail Market Scheme. The WAGRMA will have a different form from the REMCo Constitution, but will have the same function on essentially the same terms.
- The draft Retail Market Procedures:
 - The REMCo Retail Market Rules will be converted into the AEMO Retail Market Procedures. This document is the current version of the Retail Market Rules with the necessary changes indicated to establish the Retail Market Procedures.
- The draft Specification Pack:
 - Some changes will need to be made to the Specification Pack as a result of the changes to the Retail Market Procedures. The attached documents are the current versions of the Specification Pack with the necessary changes indicated to enable the transition.
- The draft FRC Hub Operational Terms and Conditions:
 - Some changes will need to be made FRC Hub Operational Terms and Conditions as a result of the changes to the Retail Market Procedures. The attached document is the current version of the FRC Hub Operational Terms and Conditions with the necessary changes indicated to enable the transition.

2. Changes to Explicit Informed Consent Requirements (C03/16R):

REMCo tabled a Gas Market Issues paper regarding C03/16R for consideration at the Committee meeting on 26 June 2016, and the Committee endorsed C03/16C as a high impact Rule change at that meeting.

Changes are being proposed to the explicit informed consent (“EIC”) requirements for large customers, with a target go-live date of 31 October 2016.

Changes will need to be made to Appendix 6 of the Retail Market Rules to enable the changes to the EIC requirements. A link is provided to the following document:

- A PRC Paper for C03/16C:
 - This document explains the rationale for the changes to the EIC requirements, including the specific changes being proposed to Appendix 6 of the Retail Market Rules.

How to Obtain More Information

The Proposed Rule Changes (PRC) for these Rule change and the related documents may be found on the REMCo website under the “Rule Change Committee” Resource section at the following link:

<http://www.remco.net.au/rule-change-notice>



Retail Energy Market Company

PROPOSED RULE CHANGE (PRC) – SUMMARY SECTION

(For Proponent or REMCo to complete. Template focuses on solution identification.)

Rule Change Number	C02/16C (Issue 186)		
Impacted jurisdiction(s)	WA		
Proponent	Stephen Eliot	Company	REMC
Proponent e-mail	stephen.eliot@remco.net.au	Proponent phone	0421 093 598
Date proposal sent to REMCo	30 June 2016		
Short Title	AEMO Transition		
Other key contact information	Danny McGowan (AEMO): (03) 9609 8447 REMC_Administration@aemo.com.au		

PROPOSED RULE CHANGE (PRC) – DETAILED REPORT SECTION

<p>1. Description of change(s) and reasons for change(s).</p>	<p>REMCo, the Australian Energy Market Operator (“AEMO”) and the WA gas retail market participants have considered the long-term future of the WA gas retail market; and concluded that it would be appropriate to pursue the transition of WA gas retail market operations from REMCo to AEMO (the “Transition”). The rationale for this conclusion is:</p> <ul style="list-style-type: none"> • REMCo and its governance model have worked well historically because it: <ul style="list-style-type: none"> ○ is efficient; ○ is responsive; and ○ is low cost; ○ has a local interface. • However, external forces have led to a loss of scale for REMCo, including: <ul style="list-style-type: none"> ○ the SA Government required REMCo to transfer its SA gas retail market operations to AEMO in 2009; ○ the WA Government awarded operation of the WA Gas Bulletin Board and Gas Statement of Opportunities to the Independent Market Operator (“IMO”) in 2010; and ○ the WA Government transferred IMO’s functions to, and awarded electricity retail market operations to AEMO in 2015. • This loss of scale left REMCo and WA gas retail market participants with two options: <ol style="list-style-type: none"> (1) Retain REMCo as the WA gas retail market operator, which would result in: <ul style="list-style-type: none"> ○ increased cost and reduced efficiency; but ○ keeping the local interface and responsiveness. (2) Transition WA gas retail market operations to AEMO, which: <ul style="list-style-type: none"> ○ would likely result in reduced costs and maintained efficiency; and ○ could lead to loss of the local interface and putting responsiveness at risk. <p>The REMCo Board held a strategic development session on 8 October 2015, where it concluded that option (2) is preferred, given:</p> <ul style="list-style-type: none"> • the role that AEMO already plays in the WA gas retail market as a service provider to REMCo; and • AEMO’s vast expertise in operating other Australian gas and electricity retail markets. <p>REMCo met with the Minister for Energy (the “Minister”), the Minister’s office, and the Public Utilities Office (“PUO”) on several occasions from August 2015 to discuss the proposition for the Transition. Feedback from the WA Government was that:</p> <ul style="list-style-type: none"> • the WA gas retail market is continuing to operate efficiently; • the WA Government would prefer that the WA gas retail market participants consider and make a proposal to Government on any changes that may be needed to the market structure; and • it is reasonable for REMCo and AEMO to work out the details for the Transition and determine how and when it is to occur.
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	<p>The REMCo Board met on 24 March 2016, where it agreed to:</p> <ul style="list-style-type: none"> • REMCo’s “Transition Strategy” (its vision and objectives), covering: <ul style="list-style-type: none"> ○ the WA gas retail market governance model; ○ treatment of the Retail Market Rules (the “Rules”); ○ treatment of the REMCo’s Gas Retail Market Systems (“GRMS”); ○ financial implications for the Transition; ○ operational implications for the Transition; and ○ timing for the Transition. • Development of a “Transition Plan” to cover: <ul style="list-style-type: none"> ○ AEMO membership; ○ the “agreement between REMCo Members” (see below); ○ REMCo and AEMO Member acceptance; ○ REMCo Scheme amendments; ○ AEMO vs REMCo Objects; ○ budget and fee setting; ○ resourcing, management and KPIs for the WA gas retail market; ○ IT management (transfer and updates to the GRMS); ○ matters impacting small Users (those with ≤500 customers) and Self-Contracting Users (“SCUs”); ○ legal and contractual issues; and ○ winding up REMCo. <p>The Rule Change Committee (the “RCC”) was introduced to the concept of the Transition at RCC Meeting No. 76, on 22 March 2016. The RCC and AEMO have subsequently worked diligently on the details of how the Transition is to occur, and in particular on the changes to the REMCo Scheme documentation.</p> <p>REMCo and AEMO executed a binding Memorandum of Understanding (“MOU”) on 30 May 2016 that agrees to the Transition based on a set of principles that will protect the interests of WA gas retail market participants and gas consumers. The MOU commits REMCo and AEMO to target go-live for the Transition on 31 October 2016.</p> <p>The concept for the Transition is as follows:</p> <p><u>The WA gas retail market structure:</u></p> <ul style="list-style-type: none"> • The WA gas retail market is governed by the <i>Energy Coordination Act 1994</i> (the “Act”). The Act requires all gas distribution systems to have an approved “Retail Market Scheme” (with some exceptions). • The Act specifies that Retail Market Schemes are to have the following components (section 11ZOF): <ul style="list-style-type: none"> ○ a “Formal Entity” to operate the market (the “Market Operator”); ○ an “Agreement” between the Market Operator and the Market Participants (Retailers and Network Operators); and ○ a set of “retail market rules” (section 11ZOG of the Act specifies the required elements of the retail market rules). • Section 11ZOM of the Act specifies that the Economic Regulation Authority (the “Authority”) must approve any Retail Market Scheme amendments before they can be implemented by the Market Operator.
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What will change:

- REMCo operates the only approved Retail Market Scheme and will apply to the Authority to amend its Scheme to allow the Transition.
- The Retail Market Scheme structure will be amended as follows:

	Current Retail Market Scheme	New Retail Market Scheme
Formal Entity:	○ REMCo.	○ AEMO.
Agreement:	○ REMCo Constitution.	○ WA Gas Retail Market Agreement ("WAGRMA").
Rules:	○ The Rules; ○ Specification Pack; and ○ FRC Hub Operational Terms and Conditions (the "Hub T&Cs").	○ Retail Market Procedures (the "Procedures"); ○ AEMO Specification Pack; and ○ Hub T&Cs.

- AEMO will replace REMCo as the "Formal Entity".
- The WAGRMA will replace the REMCo Constitution as the "Agreement". The WAGRMA will have a different form from the REMCo Constitution, but will have the same function on essentially the same terms.
- The Rules will be changed into the Procedures.
 - Some clauses will be changed to enable the transfer of functions to AEMO and to align the WA gas retail market processes with AEMO processes.
 - There will be numerous minor Procedure changes and only two material changes to (see section 2 below for details):
 - Chapter 6 (compliance and interpretation); and
 - Chapter 9 (Procedure change process).
- REMCo Members will have the option to become AEMO Members.

What will not change:

- Most practical aspects of the Retail Market Scheme will not change.
- The market will still be governed by the Act, and Authority approval will still be required for all Retail Market Scheme amendments.
- Most of the Procedures will stay substantively the same, including:
 - Chapter 1 (interpretation and administration);
 - Chapter 2 (the databases);
 - Chapter 3 (MIRN transactions);
 - Chapter 4 (metering);
 - Chapter 5 (allocation, reconciliation, and swing);
 - Chapter 7 (reporting and audits);
 - Chapter 8 (administration);
 - Chapter 10 (general provisions); and
 - Appendices 1 to 10.
- Only administrative changes will be made to the Specification Pack and Hub T&Cs; so the WA gas retail market technical protocols, systems, and interfaces will not change. This will ensure that the Transition will not have any material costs for WA gas retail market participants or gas consumers.

<p>2. Reference documentation:</p> <ul style="list-style-type: none"> ▪ Retail Market Rules (the “Rules”); ▪ Business/ Information/ Specification Pack Reference; and/or ▪ Other References. 	<ul style="list-style-type: none"> • The REMCo Constitution, which will be converted into the WAGRMA; • The Rules, which will be converted into the Procedures; • The Specification Pack, including: <ul style="list-style-type: none"> ○ Specification Pack Usage Guidelines; ○ Interface Control Document; ○ FRC B2B System Interface Definition; ○ FRC B2M-B2B Hub System Specifications; ○ FRC B2M-B2B Hub System Architecture; ○ FRC CSV Data Format Specification; ○ Connectivity Testing and Technical Certification; ○ Readiness Criteria; ○ B2B Service Order Specification Part 1; and ○ B2B Service Order Specification Part 2. • The Hub T&Cs.
<p>3. The high level details of the change to the existing Rules</p> <p>This includes a:</p> <ul style="list-style-type: none"> ▪ comparison of the existing operation of the Rules to the proposed change to the operation of the Rules. ▪ marked-up version of the proposed Rule change (see Attachment A). 	<p>There will be a large number minor Scheme documentation changes, including:</p> <ul style="list-style-type: none"> • replacing references to “REMCo” with “AEMO” in the Rules, Specification Pack, and Hub T&Cs; • renaming the Rules as the Procedures (including any references to the Rules in the Rules, Specification Pack and Hub T&Cs); • inserting a new clause 7A in the Procedures outlining the objectives for administering the Scheme (i.e. inserting the REMCo Primary aim and Objects from the REMCo Constitution); • clarifying clause 362A to give AEMO ability to charge lower joining and annual fees to small Users and SCUs, consistent with current REMCo policy; and • cleaning up some other aspects of the Scheme documentation, including: <ul style="list-style-type: none"> ○ fixing referencing and other minor errors; ○ removing spent provisions; ○ removing overlapping provisions that exist in other WA regulatory artefacts; ○ adjusting definitions to reflect AEMO’s usage of terms; and ○ picking up two other changes that have been agreed by the RCC: <ul style="list-style-type: none"> – Low impact rule change, C01/16R – customer transfer on non-business days;¹ and – High impact rule change, C03/16R – EIC – verbal consent for large customers.² <p>There will be three significant changes to the Retail Market Scheme:</p> <ul style="list-style-type: none"> • Replacing the REMCo Constitution with the WAGRMA. • Changing some aspects of Chapter 6 (compliance and interpretation), including: <ul style="list-style-type: none"> ○ AEMO will not have the power to make Procedure breach and interpretation determinations – this power will rest with the independent Compliance Panel created under the Procedures;

¹ See ref 13 in Attachment A for more information on rule change C01/16R.

² See ref 81 in Attachment A for more information on rule change C03/15R.

	<ul style="list-style-type: none"> ○ the Compliance Panel will have authority to delegate power to AEMO to make determinations on whether a compliance matter is material (this will maintain the efficiency of the current compliance arrangements); and ○ the Compliance Panel will be required to meet at least once per year to: <ul style="list-style-type: none"> – receive updates on any compliance matters and any Retail Market Scheme amendments; and – confirm the Compliance Panel guidelines and delegations. ● Changing some aspects of Chapter 9 (Procedure change process), including: <ul style="list-style-type: none"> ○ AEMO will make all decisions in the Procedure change process; ○ Authority approval will still be required for any Retail Market Scheme amendments; ○ AEMO must consult with the Procedure Change Committee (“PCC”) on any Retail Market Scheme amendments, but the PCC will no longer be a decision making body; and ○ AEMO must publish on its website all of its applications to the Authority for approval of Retail Market Scheme amendments so that Market Participants can make submissions to the Authority if they disagree with the application.
4. Consequences for making or not making the change(s)	<p>Responsibility for operating the WA gas retail market would remain with REMCo if the Transition is not approved and implemented.</p> <p>REMCo would be able to continue WA gas retail market operations, but given its lack of scale (see section 1), REMCo would likely incur increased costs and/or need to decrease market services, relative to the option of implementing the Transition. This would in turn likely result in increased fees and/or decreased market efficiency for market participants, and would have flow-on impacts on WA gas consumers.</p>
5. Explanation regarding the order of magnitude of the change(s) (e.g. material, non-material or non-substantial).	<p>Chapter 9 of the Rules indicates that:</p> <ul style="list-style-type: none"> ● A “non-substantial” change is one that does not have an effect on the operations of REMCo, interested persons or prescribed persons and merely corrects typographical errors, grammatical errors, cross-referencing errors and other similar trivial defects. ● A “low impact change” is one that does not have a material impact on: <ul style="list-style-type: none"> ○ the information technology systems of REMCo, market participants, pipeline operators or prescribed persons; ○ consumer protection mechanisms under the RMRs; or ○ REMCo, participants, pipeline operators or prescribed persons. ● A “high impact” change is a one that is not classified as having a “non-substantial impact” or a “low impact”. <p>The proposed REMCo Scheme changes are clearly high impact changes because they will have a material impact on REMCo, since REMCo will have no remaining functions after the Transition and will likely be wound up in 3-6 months.</p>
6. Likely benefits for industry as a whole	<p>The Transition will have a number of benefits for industry as a whole:</p> <ul style="list-style-type: none"> ● continued efficient market operations (as opposed to a potential decrease in market efficiency if the Transition does not occur); ● likely lower cost operations (compared to if the Transition does not occur);

	<ul style="list-style-type: none"> continued access to market operations and IT staff with broad market operations experience and expertise; and increased independence of the compliance process.
7. The likely implementation effect of the proposal Rule change(s) on Industry in general and/or any identified parties (e.g. end-users).	<p>The Transition will have the following impacts:</p> <ul style="list-style-type: none"> Market Operations: <ul style="list-style-type: none"> Responsibility for operating the WA gas retail market will transfer from REMCo to AEMO; and REMCo will likely be wound up in 3-6 months' time after the Transition. Market participation: <ul style="list-style-type: none"> Users and Network Operators will need to sign the WAGRMA to continue to participate in the WA gas retail market, and will have the option to become AEMO Members upon signing the WAGRMA, but will no longer be REMCo Members when REMCo is wound up. There will be no impact on Pipeline Operators, Shippers or Swing Service Providers. Changes to the Procedure compliance process: <ul style="list-style-type: none"> See section 3 for details on the changes to be made. These changes have been designed to increase independence of the compliance process without negatively impacting on efficiency of the process. Changes to the Procedure change process: <ul style="list-style-type: none"> See section 3 for details on the changes to be made. These changes will remove voting power of the RCC and give AEMO the power to make decision on applying to the Authority for Retail Market Scheme changes, which should increase efficiency of the process. AEMO will be required to consult with the PCC in developing any Scheme changes and publish any applications to the Authority for Retail Market Scheme changes, so market participants will be able to make submissions to the Authority if they disagree with any decisions by AEMO. Potential reduced costs (relative to not proceeding with the Transition): <ul style="list-style-type: none"> There are expected to be efficiencies, but a detailed cost analysis has not yet been completed. REMCo has developed a 5-year budget for continued WA gas retail market operations if the Transition does not occur; and AEMO is developing a non-binding 5-year budget for WA gas retail market operations. Management of the WA gas retail market: <ul style="list-style-type: none"> Transferring responsibility for operating the WA gas retail market to AEMO should have little impact on market operations because: <ul style="list-style-type: none"> AEMO already provides market operations support to REMCo and operates the FRC Hub for WA gas retail market communications; AEMO is a large and well-resourced market operator with significant experience in gas retail market operations; AEMO has a WA "local interface" now that AEMO is the WA electricity market operator with an office in Perth; and

	<ul style="list-style-type: none"> – There will be no changes to the GRMS (see section 8), and CGI will continue to operate the GRMS.³ ○ REMCo and AEMO are discussing steps to ensure that AEMO remains responsive to WA participants, which will be considered as part of the “Transition Agreement” (this will not be part of the Retail Market Scheme).⁴ • Impact on small Users and SCUs: <ul style="list-style-type: none"> ○ Ensuring that there are no barriers to competition in the WA gas retail market is a major principle enshrined in the Retail Market Scheme. ○ Two aspects of the Retail Market Scheme could be a barrier to competition for small Users and SCUs: <ul style="list-style-type: none"> – REMCo joining fees and annual fees may be too high to allow small Users and SCUs to enter and remain in the market; and – REMCo system requirements may be too onerous to allow small Users and SCUs to efficiently participate in the market. ○ REMCo addresses these potential barriers to competition by: <ul style="list-style-type: none"> – having an “Associate Membership” category under the REMCo Constitution, and charging joining and annual fees to Associate Members that are 20% of the fees for standard Members; and – providing a Low Volume Interface (“LVI”) that allows small Users and SCUs to use a less onerous and less expensive market interface. ○ REMCo and AEMO have proposed changes to: <ul style="list-style-type: none"> – the Procedures to allow AEMO to continue to charge lower fees to small Users and SCUs; and – details about LVI is described in Appendix D in the FRC B2M-B2B Hub System Specifications which is part of the Specification Pack – this document will be amended to ensure that the LVI remains available after the Transition.
8. Testing requirements.	<p>There will be no material changes to the parts of the Scheme that impact IT systems, including:</p> <ul style="list-style-type: none"> • Chapter 2 (the databases) of the Procedures; • Chapter 3 (MIRN transactions) of the Procedures; • Chapter 4 (metering) of the Procedures; • Chapter 5 (allocation, reconciliation, and swing) Procedures; • the Specification Pack; or • the Hub T&Cs <p>As a result, no changes will need to be made to the GRMS or to market participants’ systems as a result of the Transition, and the changes will not require any testing.</p>

³ Intellectual Property in the GRMS is to be transferred from REMCo to AEMO at go-live of the Transition; and CGI will continue to operate the GRMS, but under contract with AEMO rather than REMCo.

⁴ These measures will include:

- appointing a temporary WA Gas Retail Market Manager to be a point of contact for WA gas retail market participants, with responsibility for addressing any market issues; and
- undertaking and publishing the results of a regular WA gas retail market stakeholder feedback process.

<p>9. Supporting documentation (attach if necessary).</p>	<p>Details of the Scheme documentation changes are provided as follows:</p> <ul style="list-style-type: none"> • A copy of the WAGRMA is available on the REMCo website. Click here to view the REMCo website page that contains this document; • A copy of the Procedures with changes tracked from the Rules is available on the REMCo website. Click here to view the REMCo website page that contains this document; • Attachment A – provides a table specifying the changes to convert the Rules into the Procedures; • A copy of the Specification Pack with changes tracked from the current version is available on the REMCo website. Click here to view the REMCo website page that contains this document; • Attachment B – provides a table specifying the changes to the Specification Pack; and • A copy of the Hub T&Cs with changes tracked from the current version is available on the REMCo website. Click here to view the REMCo website page that contains this document; and • Attachment C – provides a table specifying the changes to the Hub T&C.
<p>10. If applicable, a proposed effective date for the proposed Rule change(s) to take effect and justification for that timeline.</p>	<p>31 October 2016.</p>

ATTACHMENT A – Table Indicating the Changes to Covert the Rules into the Procedures (see section 3)

The following table summarises all of the changes that are to be made to the Rules to convert them into the Procedures. AEMO will use the Procedures to operate the WA gas retail market upon go-live of the Transition.

Ref	Clause	Current	Change
General Changes			
1	All references to <i>REMC</i> o.		<ul style="list-style-type: none"> Replace with references to <i>AEMO</i>.
2	All <i>References</i> to <i>rule</i> or <i>rules</i> .		<ul style="list-style-type: none"> <i>AEMO</i> is governed under the “National Gas Rules”, so the <i>AEMO</i> equivalent to the <i>REMC</i>o “Retail Market Rules” are called “Retail Market Procedures”. To avoid ongoing confusion, the <i>REMC</i>o Gas Retail Market Rules will be converted into the WA Gas Retail Market Procedures. Therefore, all references to <i>rule</i> or <i>rules</i> will be replaced with references to either <i>procedures</i> or “clause”, as required by context.
3	The Introduction		<ul style="list-style-type: none"> The Introduction is updated to reflect the conversion of the <i>REMC</i>o Scheme into the <i>AEMO</i> Scheme. Wording for the new Introduction is provided in Appendix 1 below.
4		<ul style="list-style-type: none"> Minor issues. 	<ul style="list-style-type: none"> Correct and minor typographic and formatting errors throughout the <i>procedures</i>.
5	Cover page, footers, font, etc.		<ul style="list-style-type: none"> Change to reflect <i>AEMO</i> branding (will not be tracked).
6	Version control		<ul style="list-style-type: none"> Re-set to refer to version 1 (will not be tracked).
7		<ul style="list-style-type: none"> Clause numbering. 	<ul style="list-style-type: none"> Numbering will not generally be changed to avoid referencing problems. This means that the <i>procedures</i> will have some clauses with no content.

Ref	Clause	Current	Change
Chapter 1 (Interpretation and Administration)			
8	1 – Commencement	<ul style="list-style-type: none"> These <i>rules</i> commenced in <i>Western Australia</i> on the <i>go-live date</i>. 	<ul style="list-style-type: none"> Delete clause 1, as this is a spent provision, and because the definition of go-live date is to be deleted (see ref 14). Also adjust the title to section 1.1.
9	2 – Definition of <i>anticipated annual consumption</i>	<ul style="list-style-type: none"> Referencing error. 	<ul style="list-style-type: none"> The reference is to refer to Appendix 2, with no reference to a specific sub-section of Appendix 2.
10	2 – Definition of <i>business day</i>	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of the term <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> “business day” means for each jurisdiction and for AEMO operating in each jurisdiction, the <i>business hours</i> of a day that is not a Saturday, Sunday or a public holiday in <u>Western Australia</u> the relevant jurisdiction.
11	2 – Definition of <i>close of business</i>	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> “close of business” means 1700 hours in the relevant jurisdiction.
12	2 – Definition of <i>delivery point identifier</i>	<ul style="list-style-type: none"> This definition is not used anywhere in the <i>procedures</i>. The term <i>delivery point identifier</i> shows up in three <i>Specification Pack</i> documents: <ul style="list-style-type: none"> the FRC B2B System Interface Definitions v39; the Interface Control Document v4.5; and the WA Business Specification v4.2. However, the term is defined in those <i>Specification Pack</i> documents, so deletion of the definition from the <i>procedures</i> will not impact the <i>Specification Pack</i>. 	<ul style="list-style-type: none"> Delete the definition of <i>delivery point identifier</i>. This will have no consequences on the <i>procedures</i>.
13	2 – Definition of <i>earliest transfer day</i>	<ul style="list-style-type: none"> The <i>rule change committee</i> unanimously endorsed a non-consequential <i>procedure</i> change at its meeting on 16/03/16 (see Rule Change C01/16R). 	<ul style="list-style-type: none"> Insert the following note under the definition of <i>earliest transfer day</i>: <u>{Note: the <i>earliest transfer day</i> for a delivery point with a basic meter must be a business day, unless otherwise agreed by the user and the network operator. The <i>earliest transfer day</i> for a delivery point with an interval meter can be any day.}</u>

Ref	Clause	Current	Change
14	2 – Definition of <i>go-live date</i>	<ul style="list-style-type: none"> The <i>go-live date</i> is defined as 14 May 2014; and is used in two ways in the <i>procedures</i>: <ul style="list-style-type: none"> It specifies timing for spent provisions: <ul style="list-style-type: none"> clause 1 – see ref 8; clause 11(4) – see ref 32; clause 15(2) – see ref 33; clause 143 – see ref 41; clause 168(2) – see ref 42; clause 218(4) – see ref 44; and clause 308 – see ref 48. It defines timing for some ongoing events: <ul style="list-style-type: none"> clause 362A – see ref 66; and clause 373 – see ref 67. The definition can therefore be deleted, subject to the flow-on changes in the clauses listed above, particularly the two instances where the definition has an ongoing effect. 	<ul style="list-style-type: none"> Delete the definition of <i>go-live date</i>.
15	Definition of <i>jurisdiction</i>	<ul style="list-style-type: none"> The term <i>jurisdiction</i> was necessary when REMCo operated both the WA and SA gas retail markets; and was used when there were differences in how the <i>procedures</i> applied in each <i>jurisdiction</i>. The definition of <i>jurisdiction</i> was changed to mean Western Australia when REMCo handed operation of the SA gas retail market to AEMO in 2009. Usage of the term is clumsy and the <i>procedures</i> can be simplified by deleting the definition and making the following changes: <ul style="list-style-type: none"> clause 2 – definition of business day – see ref 10; clause 2 – definition of close of business – see ref 11; clause 2 – definition of meter number – see ref 16; 	<ul style="list-style-type: none"> Delete the definition of <i>jurisdiction</i>.

Ref	Clause	Current	Change
		<ul style="list-style-type: none"> ○ clause 2 – definition of start of business – see ref 28; ○ clauses 6A(2)(b) and (c) – see ref 30; ○ clauses 15(3) and (4) – see ref 33; ○ clause 16(3) – see ref 34; ○ clause 19(2) – see ref 35; ○ clause 20(2) – see ref 36; ○ clause 22(1) and (3) – see ref 37; ○ clause 54 – see ref 38; ○ clause 192(3) – see ref 43; ○ clauses 301A(3), (5) and (6) – see ref 47; ○ clause 339 – see ref 62; ○ clause 407 – see ref 79; ○ Appendix 4, clause 16(a) – see ref 83; ○ Appendix 7, clause 20.9 – see ref 86; and ○ Appendix 7, clause 21.9 – see ref 88. 	
16	Definition of <i>prior day</i>	<ul style="list-style-type: none"> • The definition relates to clause 218(4), which has been deleted – see ref 44. 	<ul style="list-style-type: none"> • Delete the definition.
17	Definition of <i>prior day data</i>	<ul style="list-style-type: none"> • The definition relates to clause 281(4), which has been deleted – see ref 44. 	<ul style="list-style-type: none"> • Delete the definition
18	Definition of <i>meter number</i>	<ul style="list-style-type: none"> • Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> • “meter number” means the unique alphanumeric identifier assigned to a meter by the <i>network operator</i> or <i>meter manufacturer</i> within each jurisdiction.
19	2 – Definition of “ <i>procedures</i> ”	<ul style="list-style-type: none"> • Insert new definition. 	<ul style="list-style-type: none"> • “<u>procedures</u>” means the WA Gas Retail Market Procedures – this document.
20	2 – Definition of <i>recommended rule change</i>	<ul style="list-style-type: none"> • This definition needs to be changed to make it consistent with the other changes to Chapter 6. 	<ul style="list-style-type: none"> • “<u>recommended procedure change</u>” means an amendment to these <i>procedures</i>, as determined by AEMO under clause 396A, clause 397 or clause 398(5).

Ref	Clause	Current	Change
21	2 – Definition of <i>REMC</i> <i>o</i>	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i><i>o</i>, insert a definition of <i>AEMO</i>, and reorder the definitions, as appropriate. 	<ul style="list-style-type: none"> “AEMO” has the meaning as set out in the schedule to the <i>National Gas (South Australia) Act 2008 (SA)</i>.
22	2 – Definition of <i>REMC</i> <i>o</i> <i>Constitution</i>	<ul style="list-style-type: none"> <i>REMC</i><i>o</i> <i>Members</i> will need to sign the <i>WA Gas Retail Market Agreement</i> to participate in the WA gas retail market, and will not need to become <i>AEMO</i> Members to participate in the WA gas retail market. Therefore, delete the definition of <i>REMC</i><i>o</i> <i>Constitution</i>, and insert a definition of <i>WA Gas Retail Market Agreement</i>, and reorder the definitions. 	<ul style="list-style-type: none"> “WA Gas Retail Market Agreement” means the <i>WA Gas Retail Market Agreement</i> between <i>AEMO</i> and <i>Scheme Participants</i> for the purposes of section 11ZOF(1)(a) of the <i>Energy Coordination Act 1994</i>.
23	2 – Definition of <i>REMC</i> <i>o</i> <i>information system</i>	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i><i>o</i> <i>information system</i>, insert a definition of <i>AEMO information system</i>, and reorder the definitions. 	<ul style="list-style-type: none"> “AEMO information system” means <i>AEMO</i>’s equipment, hardware and software (including the <i>AEMO registry</i>) used to perform <i>AEMO</i>’s obligations under these <i>procedures</i>.
24	2 – Definition of <i>REMC</i> <i>o</i> <i>member</i>	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i><i>o</i> <i>member</i>. <i>Users</i> and <i>Network Operators</i> will not be required to be <i>AEMO</i> Members to participate in the WA gas retail market. Instead they will need to sign the <i>WA Gas Retail Market Agreement</i> (see ref 22). As a result, the references to <i>REMC</i><i>o</i> <i>Members</i> will need to be replaced with “<i>Scheme participant</i>”. This change is critical for Rule 362A (Recovery of <i>AEMO</i>’s costs) to allow <i>AEMO</i> to continue to charge fees to <i>users</i> and the <i>network operator</i>, and will require <i>users</i> and the <i>network operators</i> to pay those fees. This will mirror <i>REMC</i><i>o</i>’s current fee setting powers. 	<ul style="list-style-type: none"> “Scheme participant” has the meaning given to in in section 1.1 of the <i>WA Gas Retail Market Agreement</i>.
25	2 – Definition of <i>REMC</i> <i>o</i> <i>Registry</i>	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i><i>o</i> <i>registry</i>, insert a definition of <i>AEMO registry</i>, and reorder the definitions. 	<ul style="list-style-type: none"> “AEMO registry” means the database <i>maintained</i> by <i>AEMO</i> under clause 19(1), containing at least the <i>AEMO standing data</i> and the information referred to in clause 22(4). <small>{Note: The information referred to in clause 22(1) relates to <i>GBO identifications</i>.}</small>

Ref	Clause	Current	Change
26	2 – Definition of <i>REMC</i> o Specification Pack	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i>o Specification Pack, insert a definition of <i>AEMO</i> Specification Pack, and reorder the definitions. 	<ul style="list-style-type: none"> <u>“AEMO Specification Pack”</u> means the suite of documents, as approved by <i>AEMO</i>, and the <u>approving body</u> to support the operation of these <u>procedures</u>.
27	2 – Definition of <i>REMC</i> o standing data	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i>o standing data, insert a definition of <i>AEMO</i> standing data, and reorder the definitions. 	<ul style="list-style-type: none"> <u>“AEMO standing data”</u>, in relation to a <u>delivery point</u>, means the information set out in clause 20(1) for the <u>delivery point</u>.
28	2 – Definition of <i>start of business</i>	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> <u>“start of business”</u> means 0800 hours in the <u>relevant jurisdiction</u>.
29	4 – Delegation	<ul style="list-style-type: none"> This clause gives the <i>REMC</i>o Board authority to delegate powers under the <i>rules</i>. The <i>AEMO</i> Board has authority under its Constitution to delegate its powers, including its powers under the <i>procedures</i>, so it does not require clause 4 to empower delegation. 	<ul style="list-style-type: none"> Delete cluse 4.
30	6A – Time under these <i>procedures</i>	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete “...in the relevant jurisdiction...” from clause 6A(2)(b) and (c).
31	7A – Administration of the Scheme	<ul style="list-style-type: none"> <i>REMC</i>o’s Primary Aim, Guiding Principles and Objectives are currently contained in the <i>REMC</i>o Constitution, which will not have effect after the Transition, so they need to be inserted into the <i>procedures</i>. Legal review suggested inserting the <i>REMC</i>o Objectives into the <i>procedures</i> as a new clause 7A. 	<ul style="list-style-type: none"> The <i>rule change committee</i> developed the following clause 7A to be inserted into the procedures, based on the <i>REMC</i>o Objectives: <u>7A. Administration of the Scheme</u> <u><i>AEMO</i> must, in developing and operating the gas retail market scheme for a distribution system to which the scheme and these <i>procedures</i> relates, act in accordance with the following principles, to the extent practicable:</u> <ol style="list-style-type: none"> <u>seek to minimise costs of participating in the Western Australian gas retail market;</u> <u>have regard to the best interests of the Western Australian gas retail market,</u>

Ref	Clause	Current	Change
			<p><u>including participants and customers within the distribution system;</u></p> <p>(c) <u>seek to ensure that the retail market scheme achieves an appropriate balance between cost and quality of service;</u></p> <p>(d) <u>promote and facilitate convergence of the Western Australian gas retail market with the other gas and electricity retail markets in Australia;</u></p> <p>(e) <u>seek to minimise barriers to competition;</u></p> <p>(f) <u>ensure fair, reasonable, and commercially sustainable cost recovery arrangements;</u></p> <p>(g) <u>review and enhance market services and arrangements during operation of the retail market scheme, as required;</u></p> <p>(h) <u>be flexible and responsive to participants;</u></p> <p>(i) <u>consult with Government on the development and operation of the retail market scheme; and</u></p> <p>(j) <u>operate in a transparent and accountable manner, subject to protection of commercial confidentiality.</u></p>
32	11 – Delivery times for notices	<ul style="list-style-type: none"> Clause 11(4) provides for longer delivery times for notices in the first year after the <i>go-live date</i>. 	<ul style="list-style-type: none"> This is a spent provision and can be deleted (see ref 14).
33	15 – Identification of sub-networks...	<ul style="list-style-type: none"> Clause 15(2) specifies that “Each <i>sub-network</i> and each <i>gate point</i> as at the <i>go-live date</i> is listed with its identifying code in Appendix 1.” Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words “...that is applicable to the jurisdiction in which the network operator’s GDS resides...” from clause 15(3). Delete the words as at the go-live date in clause 15(4) as the reference to the <i>go-live date</i> is no longer necessary (see ref 14).
34	16 – Procedure	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of 	<ul style="list-style-type: none"> Delete the words “...that are applicable to the”

Ref	Clause	Current	Change
	change process does not apply...	<i>jurisdiction</i> (see ref 15).	<i>jurisdiction in which the network operator's GDS resides...</i> from clause 16(3).
Chapter 2 (The Databases)			
35	19 – AEMO registry is deemed to be correct	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words <i>in each jurisdiction</i> from clause 19(2).
36	20 – AEMO standing data	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the note under clause 20(2).
37	22 – GBO identification	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words <i>in each jurisdiction</i> from clause 22(1), and the words <i>in both jurisdictions</i> from clause 22(3).
38	54 – AEMO registry to...	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words <i>in the relevant jurisdiction</i> from clause 54(1).
Chapter 3 (MIRN Transactions)			
39	71 – MIRN must be set out	<ul style="list-style-type: none"> Clause 71 places a requirement on <i>users</i> to provide the <i>MIRN</i> on invoices to <i>customers</i>. However, Division 2 sub reference 4.5 of the Compendium of Gas Customer Licence Obligations also places an obligation on <i>users</i> to provide the <i>MIRN</i> on invoices to <i>small-use customers</i>. This creates an overlap – both the <i>procedures</i> and the Compendium place the same obligation on <i>small-use customers</i>. To avoid this duplication of effort/responsibility between the Economic Regulation Authority and <i>AEMO</i> if a compliance issue ever arises on this matter, the requirement in clause 71 is to be amended to only apply to customers that are not small-use customers. 	<p>Each <i>user</i> must ensure that each invoice it renders to a <i>customer</i> <u>that is not a small-use customer</u> at a <i>delivery point</i> to which the <i>user</i> delivers gas includes the <i>MIRN</i> and <i>MIRN checksum</i> for the <i>delivery point</i>.</p> <p>{Note – There is an obligation <i>users</i> to provide the <i>MIRN</i> on invoices to <i>small-use customers</i> in schedule 2 of the Compendium of Gas Customer Licence Obligations, under Division 2 sub reference 4.5.}</p>
Chapter 4 (Metering)			

Ref	Clause	Current	Change
40	140 – AEMO to determine ...	<ul style="list-style-type: none"> The second note under clause 140(3) is a transitional provision for go-live of the market. 	<ul style="list-style-type: none"> Delete note.
41	143 – Basic Meters to be read...	<ul style="list-style-type: none"> Clause 143(3) requires the <i>network operator</i> to review its data management systems within 1½ years of the <i>go-live date</i>. 	<ul style="list-style-type: none"> This is a spent provision and can be deleted (see ref 14).
42	168 – Archived historical metering data...	<ul style="list-style-type: none"> Clause 168(2) states “From the <i>go-live date</i>, the <i>network operator</i> must <i>maintain</i> or archive previous <i>meter reading data</i> for each <i>delivery point</i> in its <i>GDS</i> with an <i>interval meter</i> for at least 7 years in a format which is accessible within 5 business days. 	<ul style="list-style-type: none"> Delete the words From the go-live date as reference to the <i>go-live date</i> is no longer necessary (see ref 14).
Chapter 5 (Allocation, Reconciliation and Swing)			
43	192 – If allocation instruction is invalid	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the word jurisdiction's from clause 192(3).
44	218 – the period for calculations	<ul style="list-style-type: none"> Clause 218(4) is a transitional provision to allow market calculations in the first few days after the <i>go-live date</i> (i.e. to allow use of data from prior to the <i>go-live date</i>). 	<ul style="list-style-type: none"> This is a spent provision and can be deleted (see ref 14).
45	171A – Exemption for farm tap sub-networks...	<ul style="list-style-type: none"> This rule refers to the obsolete <i>farm tap</i> terminology. 	<ul style="list-style-type: none"> Delete the reference to <i>farm tap</i> in the heading.
46	281 – Swing service bids	<ul style="list-style-type: none"> A note under this clause indicates that a new rule 281(4)(a)(iii) is to be developed after the <i>go-live date</i>. The new clause is to be to the effect that <i>swing service bids</i> may be expressed either... <ul style="list-style-type: none"> (iii) as part or all (in accordance with this clause 281(4)) of what remains after deducting the <i>user's estimated total withdrawals</i> for the <i>gas day</i> calculated under clause 228 from a fixed amount specified by the <i>user</i>”. The new clause 281(3)(a)(iii) was not developed in the first 12 years of <i>REMC</i> operations; and the <i>rule</i> 	<ul style="list-style-type: none"> Delete the note.

Ref	Clause	Current	Change
		<p><i>change committee</i> has determined that the suggested new clause is still not needed.</p> <ul style="list-style-type: none"> • <i>Scheme participants</i> can seek such an amendment at any time, using the <i>procedure</i> change process in Chapter 9, so the note is not needed. 	
47	301A – Manifest data errors...	<ul style="list-style-type: none"> • Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> • Delete the words in the relevant jurisdiction from clauses 301A(3)(a), 301A(5), and 301A(6); and the words for the relevant jurisdiction from clause 301A(3)(b).
48	308 – Review of Chapter 5	<ul style="list-style-type: none"> • Clause 308 required a review of the <i>swing service</i> mechanism at 6 months, 18 months, and 3 years after the <i>go-live date</i>, so this is a spent provision (see ref 14). • It is also recognised that there are sufficient other review mechanisms that will cover Chapter 5, including: <ul style="list-style-type: none"> ○ clause 17 requires a review of all of the <i>procedures</i> every 5 years; ○ <i>REMC</i> undertakes an annual feedback process, and <i>AEMO</i> will continue with this after the Transition; ○ the <i>rule change committee</i> will continue to meet and can raise any issues with Chapter 5 at any time; and ○ <i>AEMO</i> will need to undertake a review of compliance with Chapter 5 once every three years under clause 351. 	<ul style="list-style-type: none"> • Delete clause 308. • Also deleted the note under clause 17(c) that refers to Rule 308.

Ref	Clause	Current	Change
Chapter 6 (Compliance and Interpretation)			
<p><i>AEMO</i> raised concerns with the role that the <i>AEMO</i> Board would play under Chapter 6 of the <i>procedures</i> if Chapter 6 were transitioned as it stands in v6.9 of the rules. <i>AEMO</i>'s concerns were with the role the <i>AEMO</i> Board would play in:</p> <ul style="list-style-type: none"> making decisions on compliance matters; and appointing the <i>compliance panel</i>. <p><i>REMC</i>o and <i>AEMO</i> developed principles for proposed changes to Chapter 6 to meet <i>AEMO</i>'s requirements and still be acceptable to <i>REMC</i>o and WA gas retail market participants. <i>REMC</i>o consulted with <i>AEMO</i>, the <i>rule change committee</i> (18/05/16), and the <i>REMC</i>o Board (26/05/16); and achieved agreement these principles – see Appendix 2.</p> <p><i>REMC</i>o, <i>AEMO</i>, and the <i>rule change committee</i> developed the Chapter 6 changes based on Appendix 2, with advice from <i>REMC</i>o's lawyers.</p>			
49	309 – <i>AEMO</i> to create <i>compliance panel</i>	<ul style="list-style-type: none"> Clause 309(1) states “<i>AEMO</i> must establish a <i>compliance panel</i> under these <i>procedures</i> by the <i>go-live date</i>.” 	<ul style="list-style-type: none"> Delete “...by the go-live date” as these words are no longer necessary.
50	323A – Annual Meeting		<ul style="list-style-type: none"> A new clause is inserted to require the <i>compliance panel</i> is to meet: <ul style="list-style-type: none"> at least once per year; and more frequently if <i>AEMO</i> or a <i>Scheme participant</i> informs the Chair of the <i>compliance panel</i> in writing that they wish to bring a matter before the <i>compliance panel</i> for discussion. The meetings are to allow the <i>compliance panel</i> to: <ul style="list-style-type: none"> be informed by <i>AEMO</i> of any high-impact <i>procedure</i> changes; confirm any compliance guidelines (see clause 338); and Confirm any delegations of power to <i>AEMO</i> (see clause 343).
51	324 – Powers of the <i>compliance panel</i>		<ul style="list-style-type: none"> Correct clause references to address changes to clause 329 (see ref 55).

Ref	Clause	Current	Change
52	325 – Matters referred to AEMO	<ul style="list-style-type: none"> Clause 325(1) provides that if a <i>participant</i>, <i>pipeline operator</i>, or <i>prescribed person</i> becomes aware of a <i>procedure</i> breach, they may notify AEMO at any time. 	<ul style="list-style-type: none"> Clause (1) is clarified that AEMO is also to provide a notice if it becomes aware of a <i>procedure</i> breach.
53	325A – Suspending the process	<ul style="list-style-type: none"> The compliance process can be suspended if a <i>participant</i> requests a <i>rule</i> interpretation, and the suspension will take effect until: <ul style="list-style-type: none"> (a) REMCo rejects the matter under clause 329(1)(b)(i); or (b) REMCo makes a determination under clause 329(1)(b)(ii); or (c) the <i>compliance panel</i> makes a decision under clause 341(5)(b). 	<ul style="list-style-type: none"> With the changes to clause 329 (see ref 55): <ul style="list-style-type: none"> clauses (a) and (b) are to be deleted from clause 325A(2); and the explanatory note is to be simplified.
54	328 – REMCo to determine its procedures	<ul style="list-style-type: none"> REMCo is to determine its <i>procedures</i> for hearing and determining compliance and interpretation matters – this is the basis for the <i>REMCo (Board) Compliance Procedures</i>. 	<ul style="list-style-type: none"> This clause is to be deleted because the AEMO Board will not have a role in the compliance process.
55	329 – Determinations which may be made	<ul style="list-style-type: none"> This clause currently relates to determinations that can be made by REMCo (interpreted to mean the REMCo Board), but after the Transition, compliance matters are not to be determined by AEMO. Instead, AEMO is to investigate matters and refer them to the <i>compliance panel</i> or to the <i>approving body</i>. The <i>approving body</i> is the Economic Regulation Authority (this will not change). 	<ul style="list-style-type: none"> (a) If the matter relates to a <i>procedure</i> breach by a <i>participant</i> or AEMO, and AEMO <u>has not</u> been delegated authority to make decisions on materiality under clause 343(3) (see ref 63), then AEMO is to refer the matter to the <i>compliance panel</i>. (b) If the matter relates to a <i>procedure</i> breach by a <i>participant</i> or AEMO, and AEMO <u>has</u> been delegated authority to make decisions on materiality under clause 343(3) (see ref 63), then: <ul style="list-style-type: none"> AEMO is to determine whether the matter is material; If the matter <u>is not</u> material, AEMO is to either dismiss the matter or refer it to the <i>compliance panel</i>; If the matter <u>is</u> material, AEMO is to refer the

Ref	Clause	Current	Change
			<p>matter to the <i>compliance panel</i>.</p> <p>(c) If the matter relates to a <i>procedure</i> breach by a <i>pipeline operator</i> or <i>prescribed person</i>:</p> <ul style="list-style-type: none"> ○ if AEMO determines that the matter <u>is not</u> material, AEMO is to either dismiss the matter or refer it to the <i>approving body</i>; ○ if AEMO determines that the matter <u>is</u> material, AEMO is to refer it to the <i>approving body</i>. <p>(d) If the matter relates to an interpretation of the <i>procedures</i>, then AEMO is to refer the matter to the <i>compliance panel</i> along with its preliminary view.</p> <p>The note listing the materiality criteria for <i>procedure</i> breaches are also to apply to AEMO.</p>
56	330 – Notification of Determinations		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 329 (see ref 63).
57	331 – Appeal to the <i>compliance panel</i>		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 329 (see ref 55).
58	332 – Referral of matters to the <i>compliance panel</i>		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 329 (see ref 55).
59	333 – Requirements for referral		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 332 (see ref 58).
60	336 – Proceedings		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 329 (see ref 55).
61	338 – <i>compliance panel</i> to determine its own <i>procedures</i>	<ul style="list-style-type: none"> • The <i>compliance panel</i> is to determine its own <i>procedures</i> for holding hearings. 	<ul style="list-style-type: none"> • With the name change from <i>rules</i> to <i>procedures</i>, the term <i>procedures</i> in this clause are changed to guidelines.

Ref	Clause	Current	Change
62	339 – Where hearings may be held	<ul style="list-style-type: none">Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15).	<ul style="list-style-type: none">Amend clause 340 as follows: <i>Compliance panel hearings must be held in Western Australia</i> may be held in either jurisdiction or both as determined under clause 339(1).
63	343 – Determinations which may be made	<ul style="list-style-type: none">This clause specifies the determinations that the <i>compliance panel</i> may make, including interim determinations.	<ul style="list-style-type: none">The <i>compliance panel</i> is to have an additional power to determine that a breach is not material and to take no further action (this was previously a power of <i>REMC</i>o).The <i>compliance panel</i> is to have the authority to delegate to <i>AEMO</i> its power to assess whether a breach is material or not material under c, 329 (see ref 55).If the <i>compliance panel</i> makes this delegation, then the <i>compliance panel</i> only has authority to make a further determination if <i>AEMO</i> determines that the matter is material.
Chapter 7 (Reporting and Audits)			
64	No changes other than those listed under General Changes.		
Chapter 8 (Administration)			
65	362A – Recovery of <i>AEMO</i> 's costs	<ul style="list-style-type: none"><i>AEMO</i> can charge a lower <i>registration fee</i> (i.e. the joining fee) and <i>service fee</i> (i.e. the annual fee) to small <i>users</i> in other jurisdictions in accordance with its “reflective involvement principle”. This appears in the <i>procedures</i> in the other jurisdictions.Clause 362A deals with recovery of costs and fee setting; and indicates that the <i>registration fee</i> and <i>service fee</i> should not be a barrier to entry, and should provide efficient price signals.However, clause 362A does not explicitly allow <i>AEMO</i> to charge a lower <i>registration fee</i> or <i>annual fee</i> to	<ul style="list-style-type: none">The following changes are proposed to Rule 362A:<ul style="list-style-type: none">(a) in recovery of its <i>costs</i>, the charges imposed by <i>AEMO</i> <u>on Scheme participants</u> <i>REMC</i>o on users, who are <i>REMC</i>o members, shall not be such as to create a material barrier to entry for new entrants, <u>small users, or self-contracting users</u>;...(f) <i>AEMO</i> is to have discretion to charge a lower <i>registration fee</i> and <i>service fee</i> for small <i>users</i> and self contracting users;(g) <i>AEMO</i>'s discretion under this clause 362A is to

Ref	Clause	Current	Change
		<p>smaller <i>users</i> or self-contracting users; so clause 362A is to be changed to make this explicit.</p> <ul style="list-style-type: none"> This discretion for <i>AEMO</i> is to include determining which <i>users</i> the lower fees are to apply to, and how much lower the fee should be. 	<p><u>include determining the definition of a small <i>user</i>, and how much lower the fees for small <i>users</i> and self contracting users should be in comparison to other <i>Scheme participants</i>.</u></p> <p>...</p> <p><u>{Note: In exercising this discretion under clause 362A, <i>AEMO</i> is to consider the principles listed in clause 7A. <i>AEMO</i> can define a small user by reference to the number of customers, quantity of gas transported, or any other characteristic.}</u></p>
66	362A – Charging and payment of fees	<ul style="list-style-type: none"> Clause 362A(6) specifies what is to occur if the fee escalation index changes substantially from what was published at the <i>go-live date</i>. 	<ul style="list-style-type: none"> Change the reference to go-live date into <u>2004</u> (see ref 14).
67	373 – Small use customer and small use customer indicator determination	<ul style="list-style-type: none"> Clause 373(6) specifies timing for <i>AEMO</i> to conduct the <i>small use customer</i> determination process, with reference to the <i>go-live date</i>. This clause is to refer to the <u>month</u> of the <i>go-live date</i> so that deleting the <i>go-live date</i> definition does not impact process timing. 	<ul style="list-style-type: none"> Change the text as follows “...end of each six month period <u>from May each year</u>, with the first six month period commencing on the go-live date, <i>AEMO</i> must determine...” – see ref 14.
Chapter 9 (Procedure Change Process)			
<p><i>AEMO</i> raised concerns with the following elements of the Chapter 9 <i>procedure</i> change process if Chapter 9 were transitioned as it stands in v6.9 of the <i>rules</i>:</p> <ul style="list-style-type: none"> the types of decisions that the <i>AEMO</i> Board would need to make on <i>procedure</i> changes (if any); and whether the <i>rule change committee</i> should be a decision-making (i.e. voting) body or a consultative body. <p><i>REMC</i>o and <i>AEMO</i> have developed principles for changes to the Chapter 9 <i>procedure</i> change process to meet the requirements of <i>AEMO</i> and still be acceptable to <i>REMC</i>o and WA gas retail market participants. <i>REMC</i>o consulted with <i>AEMO</i>, the <i>rule change committee</i> (18/05/16), and the <i>REMC</i>o Board (26/05/16); and achieved agreement on these principles – see Appendix 3.</p> <p><i>REMC</i>o, <i>AEMO</i>, and the <i>rule change committee</i> developed the Chapter 9 changes reflect Appendix 3, with advice from <i>REMC</i>o’s lawyers.</p>			
68	392 – Appeal to <i>AEMO</i>	<ul style="list-style-type: none"> A proponent for a <i>procedure</i> change may appeal a decision by <i>AEMO</i> under clause 391 (to accept or reject a proposed change). 	<ul style="list-style-type: none"> The requirements for what must be submitted to <i>AEMO</i> to appeal a decision is simplified by deleting clauses (a) and (b), as <i>AEMO</i> will already have the information required by these clauses.

Ref	Clause	Current	Change
69	394 – Initial assessment by <i>procedure change committee</i>	<p>(2) The <i>rule change committee</i> must:</p> <p>(a) reject a proposed change if it meets certain criteria; and</p> <p>(b) send a notice regarding the rejection.</p> <p>...</p> <p>(4) The <i>rule change committee</i> must accept a proposed change if it is not rejected under (2).</p>	<p>(2) The <i>procedure change committee</i> must:</p> <p>(a) recommend to <i>AEMO</i> to reject a proposed change (no change to the criteria for making this decision); and</p> <p>(b) delete this clause.</p> <p>...</p> <p>(4) The <i>procedure change committee</i> must recommend to <i>AEMO</i> to accept a proposed change if it does not recommend to reject the change under (2).</p> <p>(5) <i>AEMO</i> must make its decision under (2)(a) or (4) within 20 business days.</p> <p>(6) <i>AEMO</i> must notify the proponent of its decision under (5) within 5 business days.</p>
70	395 – Appeal to <i>AEMO</i>	<ul style="list-style-type: none"> <i>AEMO</i> to hear appeal of decisions on rejection under clause 394. 	<ul style="list-style-type: none"> The requirements for what information must be submitted to <i>AEMO</i> to appeal a decision is simplified by deleting clauses (1)(a) and (b), as <i>AEMO</i> will already have the required information. Language in clause (2) and (3) are cleaned up to reflect the change of the role for the <i>procedure change committee</i>. Clause (4) is simplified to reflect who must be notified of appeal decisions.
71	396 – If the <i>rule change committee</i> accepts a change request	<ul style="list-style-type: none"> If the <i>rule change committee</i> accepts a <i>proposed change</i>, it must determine whether the change is non-consequential or low impact, based on a defined set of criteria. 	<ul style="list-style-type: none"> The <i>procedure change committee</i> is to make a recommendation to <i>AEMO</i> on whether the proposed change is non-consequential or low impact; and <i>AEMO</i> is to make the decision (no change to the criteria for the decision). New sub-clauses are inserted on timing for <i>procedure change committee</i> delivering its recommendation, and for <i>AEMO</i> making its decision.

Ref	Clause	Current	Change
72	396A – Non-substantial changes	<ul style="list-style-type: none"> The <i>rule change committee</i> is to decide whether to submit any non-substantial change proposals to the <i>approving body</i>. 	<ul style="list-style-type: none"> <i>AEMO</i> is to decide whether to submit any non-substantial change proposals to the <i>approving body</i>.
73	397 – Low-impact changes	<ul style="list-style-type: none"> The <i>rule change committee</i> is to develop an Impact and Implementation Report (“IIR”) on any low-impact change proposals. 	<ul style="list-style-type: none"> <i>AEMO</i> is to develop an IIR on any low-impact change proposals.
74	398 – High-impact changes	<ul style="list-style-type: none"> High-impact changes are any proposed change that is not non-substantial or low-impact. The <i>rule change committee</i> is to develop an IIR on any high-impact change proposal. The <i>rule change committee</i> must run a 10-day consultation process on the proposed change, and make a decision on whether to proceed with the change. The <i>procedure change committee</i> is to meet to consider any submissions on high-impact proposed changes and determine whether to proceed with the change. 	<ul style="list-style-type: none"> <i>AEMO</i> is to take the role of the <i>rule change committee</i>.
75	399 – Consideration of recommended changes	<ul style="list-style-type: none"> If <i>REMC</i>o receives a <i>procedure</i> change (non-substantial under clause 396A, low-impact under clause 397, or high-impact under clause 398), it must decide whether to endorse or reject the proposed change, and must notify the proponent of the rejection. If the recommended change relates to clause 362A (fee setting) <i>REMC</i>o must not endorse the change unless 80% of the <i>REMC</i>o Board support the recommendation. 	<ul style="list-style-type: none"> <i>AEMO</i> takes the role of <i>REMC</i>o. If the recommended change relates to clause 362A (fee setting), the <i>AEMO</i> Board must not endorse the proposed change unless 80% of the <i>AEMO</i> Board supports the recommendation (this will be the only decision that must be made by the <i>AEMO</i> Board – the other decisions can be delegated).
76	399A – <i>REMC</i> o endorses low-impact changes	<ul style="list-style-type: none"> If <i>REMC</i>o endorses a low-impact proposed change, it must conduct a 10-day consultation process. <ul style="list-style-type: none"> If no objections are received, <i>REMC</i>o must decide whether to apply to the <i>approving body</i> for the 	<ul style="list-style-type: none"> <i>AEMO</i> takes the role of <i>REMC</i>o. A new clause 399A(6) specifies the requirement on <i>AEMO</i> to make a determination after receiving a recommendation from the <i>procedure change</i>

Ref	Clause	Current	Change
		<p>change.</p> <ul style="list-style-type: none"> ○ If an objection specifies that the proposed change is high-impact, then the <i>rule</i> change must be subject to the high-impact <i>rule</i> change process under clauses 398 and 399. ○ If an objection specifies that the proposed change is non-substantial or low impact, <i>REMC</i>o must provide the objection to the <i>rule change committee</i>. The <i>rule change committee</i> must decide whether to recommend to <i>REMC</i>o to: <ul style="list-style-type: none"> ▪ apply to the <i>approving body</i> for the proposed change; ▪ abandon the proposed change; or ▪ recommend an alternative change. • Notification requirements are specified. 	<p><i>committee</i>.</p>
77	400 – <i>REMC</i> o endorsed high-impact change	<ul style="list-style-type: none"> • If <i>REMC</i>o endorses a high-impact proposed change, it must conduct a specified consultation process (this is a second consultation process after the first process under clause 398). • If no objections are received, then the <i>rule change committee</i> must recommend to <i>REMC</i>o to submit the high-impact change proposal to the <i>approving body</i>, and <i>REMC</i>o is to make the submission to the <i>approving body</i>. • If objections are received, then the <i>rule change committee</i> is to make a recommendation to <i>REMC</i>o to: <ul style="list-style-type: none"> ○ apply to the <i>approving body</i> for the proposed change despite the objections; or ○ amend the proposed change to address the objection and, if the amendment is material, clause 397 applies to the amended change. 	<ul style="list-style-type: none"> • <i>AEMO</i> is to take the role of <i>REMC</i>o. • A new clause 400(5) specifies the requirement on <i>AEMO</i> to make a determination after receiving a recommendation from the <i>procedure change committee</i>.

Ref	Clause	Current	Change
78	400A – Submission for approval	<ul style="list-style-type: none"> • <i>REMC</i>o is to determine its processes to consider a report under clause 396A or 400, and is to decide whether to <ul style="list-style-type: none"> ○ apply to the <i>approving body</i> for the proposed change; ○ amend the proposed change and consult again; or ○ abandon the proposed change. • <i>REMC</i>o must notify market participants of its decision. 	<ul style="list-style-type: none"> • <i>AEMO</i> is to determine its processes to consider a report under clause 396A or 400, and is to decide whether to <ul style="list-style-type: none"> ○ apply to the <i>approving body</i> for the proposed change; ○ amend the proposed change and consult again; or ○ abandon the proposed change. • <i>AEMO</i> must notify market participants of its decision. • If <i>AEMO</i> decides to apply to the <i>approving body</i> for a proposed change, and subject to any requirements from the <i>approving body</i>, <i>AEMO</i> must provide market participants with: <ul style="list-style-type: none"> ○ a copy of the application to the <i>approving body</i>; and ○ instructions on how to make a submission to the <i>approving body</i> regarding the application (within a 10 business day window).
Chapter 10 (General Provisions)			
79	407 – Severability	<ul style="list-style-type: none"> • Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> • Delete the words “...or the validity of that procedure in any other jurisdiction.”
Appendix 1 (Coding of Gas Zones and Gate Points)			
80			<ul style="list-style-type: none"> • Delete the superfluous “Western Australia” heading on page 1 of the appendix. • Delete the superfluous reference to Appendix 1.2 on the last page of the appendix.

Ref	Clause	Current	Change
Appendix 2 (Estimation and Verification Methodology)			
81			<ul style="list-style-type: none">Delete the superfluous “Western Australia” heading on page 1 of the appendix.Delete the text “There is no Sub-Appendix 2.2” on the last page of the appendix.
Appendix 3 (Calculation of the MIRN checksum)			
82	No changes other than those listed under General Changes.		
Appendix 4 (Auditor’s deed of undertaking)			
83	16 – Definitions	<ul style="list-style-type: none">Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15).	<ul style="list-style-type: none">Delete the words “...as approved by the relevant jurisdiction...” from the definition of Retail Market Procedures in clause 16(a).
Appendix 5 (Calculations, Rounding and Units)			
84	No changes other than those listed under General Changes.		
Appendix 6 (Requirements for Explicit informed consent)			
85		<ul style="list-style-type: none">Appendix 6 specifies the requirements for explicit informed consent, including that <i>small use customers</i> can provide <i>explicit informed consent</i> verbally or in writing, whereas large customers may only provide <i>explicit informed consent</i> in writing.The <i>rule change committee</i> unanimously endorsed a high-impact <i>procedure</i> change at its meeting on 29/06/16 (see Rule Change C03/16R).	Requirements for explicit informed consent <i>A customer’s consent will be explicit informed consent if the consent is given:</i> (a) expressly; and (b) subject to clause 0, <u>orally or</u> in writing; and (c) after the <i>user</i> has in plain language appropriate to that <i>customer</i> disclosed all matters materially relevant to the giving of the consent, including each specific purpose for which the consent will be used; and (d) by a person competent <u>or authorised</u> to give it on the <i>customer’s</i> behalf.

Ref	Clause	Current	Change
			<p>Small use customer's consent may be given orally A small use customer's explicit informed consent may be given orally. Records of explicit informed consent A user must:</p> <ul style="list-style-type: none"> (e) create a record of each <i>explicit informed consent</i> received. (f) <i>maintain</i> the record for a period of at least 2 years from the date of the <i>explicit informed consent</i>. (g) provide a copy of the record to REMCo within 10 <i>business days</i> after REMCo requests it. <p>A record under clause 0(e) must:</p> <ul style="list-style-type: none"> (h) be in a form capable of examination by REMCo <u>AEMO</u> under rule 72(5)<u>clause 72</u> and of audit under rule 350; (i) include such information as enables REMCo <u>AEMO</u> or the auditor to verify the <i>user's</i> compliance with rules <u>clauses</u> 55A, 72(1), 72(4), 79(1), 79(4), 166A and 349 and this Appendix 6.
Appendix 7 (Swing Service Umbrella Deed [SSUPD])			
86	20.9 – Severability	<ul style="list-style-type: none"> • Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> • Amend the clause as follows: Any provision of this agreement which is invalid in any jurisdiction is invalid in that jurisdiction to that extent, without invalidating or affecting the remaining provisions of this agreement or the validity of that provision in any other jurisdiction.
Appendix 8 (Terms and Conditions for Swing Service Provider of Last Resort)			
87	No changes other than those listed under General Changes.		

Ref	Clause	Current	Change
Appendix 9 (Fallback User-Shipper Agreement)			
88	20.9 – Severability	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Amend the clause as follows: Any provision of this deed which is invalid in any jurisdiction is invalid in that jurisdiction to that extent, without invalidating or affecting the remaining provisions of this deed or the validity of that provision in any other jurisdiction.
Appendix 10 (Swing Service Causation Compensation Terms)			
89		<ul style="list-style-type: none"> 	<ul style="list-style-type: none">
Appendix 11 (There is no Appendix 11)			
90		<ul style="list-style-type: none"> Appendix 11 related to South Australian market operations and is no longer use. 	<ul style="list-style-type: none"> Delete Appendix 11 – this will have no impact on numbering in the rest of the <i>procedures</i>
Appendix 12 (There is no Appendix 12)			
91		<ul style="list-style-type: none"> Appendix 12 related to South Australian market operations and is no longer use. 	<ul style="list-style-type: none"> Delete Appendix 12 – this will have no impact on numbering in the rest of the <i>procedures</i>

INTRODUCTION

PURPOSE

In 2003, the Western Australian Government amended the *Energy Coordination Act 1994* (WA) to implement full retail contestability in the State's gas retail markets.

Retail Energy Market Company Limited ("REMCo") was established by WA gas retail market participants in 2004 to develop and operate cost efficient and effective retail market arrangements to facilitate gas retail competition in Western Australia and South Australia. However, on 1 October 2009, *REMCo* transferred responsibility for operation of the South Australian gas retail markets to the *Australian Energy Market Operator* ("AEMO").

The remaining *REMCo* Members subsequently agreed to transfer the WA gas retail market operation to *AEMO* on 31 October 2016.

The purpose of these WA Gas Retail Market *procedures* (the "*procedures*") is to govern the interactions between *participants*, *pipeline operators*, *prescribed persons* and *AEMO* in the Western Australian gas retail market.

STATUS

The Gas Retail Market Scheme

Under section 11ZOB of the *Energy Coordination Act 1994* (WA), the purpose of a retail market scheme for a distribution system is to ensure that the retail gas market supplied through that system is regulated and operates in a manner that is open, competitive, efficient and fair to gas market participants and their customers.

Each retail market scheme must have a formal entity to administer the scheme and *AEMO* has been appointed as the formal entity for the WA gas retail market.

The *WA Gas Retail Market Agreement* operates as a contract between *Scheme participants* (under section 11ZOF of the *Energy Coordination Act 1994*), and requires *AEMO* and the *Scheme participants* to comply with these *procedures*. As a result, these *procedures* are a contractual term of the *WA Gas Retail Market Agreement*; so *Scheme participants* or *AEMO* may bring an action to enforce the terms of the *WA Gas Retail Market Agreement* (including a provision of these *procedures*) against the other *Scheme participants* or against *AEMO* itself.

Regulatory status

Under section 11ZOC of the *Energy Coordination Act 1994* (WA), where there is more than one gas distribution operator or retail gas operator on a gas distribution system, each gas distribution operator and retail gas operator must be bound by agreement to comply with the relevant provisions of an "approved retail market scheme" for that distribution system.

The *WA Gas Retail Market Agreement* is the agreement between gas distribution operators and retail gas operators for the *AEMO* scheme for the WA gas retail market, and requires *AEMO* and the *Scheme participants* to comply with these *procedures*.

Appendix 1 – Proposed New Introduction to the *procedures*

In addition, gas transmission operators and persons prescribed under regulations must comply with the relevant provisions of the “retail market rules” made as part of an approved retail market scheme for a distribution system. These *procedures* are the “retail market rules” made as part of the approved retail market scheme.

The Western Australian Minister for Energy approved the *REMC*o Scheme under section 44 of the *Energy Legislation Amendment Act 2003* (WA) in 2004; and in 2016, the *Economic Regulation Authority* approved amendments to the *REMC*o Scheme under section 11ZOM of the *Energy Coordination Act 1994* (WA) to amend the *REMC*o scheme into the *AEMO* Scheme. The elements of the *AEMO* scheme are the *WA Gas Retail Market Agreement*, these *procedures*, the *AEMO Specification Pack*, and the *FRC Hub Operational Terms and Conditions*.

Amendments to the *AEMO* Scheme must be submitted to the *Economic Regulation Authority* under section 11ZOL of the *Energy Coordination Act 1994* (WA), for approval under section 11ZOM of the *Energy Coordination Act 1994* (WA).

OTHER RELEVANT DOCUMENTS

These *procedures* are one element of the retail market arrangements that *AEMO* operates for the Western Australian gas market. These *procedures* should be read in conjunction with:

- the following documents that relate to the operation of the WA gas retail market and the related Gas Retail Market System; and the manner in which *participants*, *pipeline operators*, *prescribed persons* and *AEMO* interact in the gas markets:
 - the *WA Gas Retail Market Agreement*;
 - the *AEMO Specification Pack*;
 - the User Guidelines for the *AEMO Specification Pack*; and
 - the *FRC Hub Operational Terms and Conditions*; and
- all applicable *laws*.

Appendix 2 – Principles for the Proposed Changes to Chapter 6

The process to deal with compliance for the *procedures* is to be amended so that:

- (1) All references to *REMC*o will be changed into *AEMO*, and all references to *rules* will be changed into *procedures* or clause, as required by context.
- (2) All decisions on alleged breaches and rule interpretations are to be made by the *compliance panel*.
- (3) The *compliance panel* may delegate power to *AEMO* make determinations as to whether a matter was material or not material.
- (4) The *compliance panel* must meet at least once per year to:
 - be informed by *AEMO* of any high-impact *procedure* changes;
 - confirm any compliance guidelines; and
 - confirm any delegations of power to *AEMO*.

Other aspects of the *procedure* compliance process will remain unchanged – it will continue have heads of power under the *Energy Coordination Act 1994* (the “Act”), which specifies that the *procedures* are to provide for the:

- resolution of disputes and questions that may arise (section 11ZOG(2)(f) of the Act);
- monitoring compliance with the *procedures* (section 11ZOG(2)(h) of the Act); and
- enforcement of the *procedures*, including by imposition of penalties (section 11ZOG(2)(i) of the Act).

Chapter 6 of the *procedures* are currently interpreted so that *REMC*o means:

- *REMC*o staff (the CEO or operational staff contracted from *AEMO*) when they address an operational aspect of the compliance process (e.g. clause 318, which requires *REMC*o to provide administrative assistance to the *compliance panel*); and
- the *REMC*o Board when they indicate that a decision is to be made (e.g. clause 4329 which indicates the determinations that the *REMC*o Board can make), noting that in some cases the *REMC*o Board has delegated its decisions to the *REMC*o CEO.

Once *rules* are converted into the *procedures*, it will be up to *AEMO* to determine the appropriate person within *AEMO* that is to perform the specified tasks or make the specified decisions, which may be different from *REMC*o’s current practice. *AEMO*’s delegation authority is provided for in its *Constitution*.

The following two subsidiary documents to Chapter 6 of the *rules*: will be reviewed and updated prior to go-live of the Transition.

- The “*REMC*o (Board) Compliance Procedures”, which will be deleted given that the *AEMO* Board will not have a role in determining compliance matters; and
- the “Recommended *REMC*o Compliance Panel Procedures”, which will be converted into the “Compliance Panel Guidelines”, and will be given to the *compliance panel* for consideration and approval.

Appendix 3 – Principles for the Proposed Changes to Chapter 9

The process to change the *procedures* is to be amended so that:

- (1) All references to *REMC*o will be changed into *AEMO*, and references to *rules* will be changed into *procedures* or clause, as required by context.
- (2) *AEMO* must consult with the *procedure change committee* on proposed changes to the *AEMO* Scheme and *AEMO* will consider *procedure change committee* recommendations, but *AEMO* is to make all decisions under the process, including whether to apply to the *approving body* (the Economic Regulation Authority) for approval of Scheme changes. That is, the *procedure change committee* will not be a decision-making body.
- (3) *AEMO* must publish all applications to the *approving body* for Scheme changes, and *Scheme participants* are to have the ability to make a submission to the *approving body* for its consideration in approving a Scheme change.

Other aspects of the Scheme change process will remain unchanged – it will continue have heads of power under the *Energy Coordination Act 1994* (the “Act”) including:

- the Economic Regulation Authority is to have authority to approve Scheme changes under section 11ZOM of the Act;
- the criteria for the Economic Regulation Authority to consider in approving Scheme changes are laid out in sections 11ZOO, 11ZOP, and 11ZOB of the Act;
- *AEMO* and market participants may apply to the Economic Regulation Authority for a Scheme change under section 11ZOL of the Act; and
- the *procedures* are to contain the process for the *AEMO* is to use to develop Scheme changes for application to the Economic Regulation Authority, as per section 11ZOG(2)(h) of the Act.

Chapter 9 of the *procedures* are currently interpreted so that *REMC*o means:

- *REMC*o staff (usually the *REMC*o CEO) for operational aspects of the *procedure* change process – e.g. clause 388(4), which requires *REMC*o to make *rule change committee* minutes available within 7 days; and
- the *REMC*o Board for decisions – e.g. clause 400A, which requires *REMC*o to submit Scheme changes to the *approving body* for approval, noting that the *REMC*o Board has delegated some decisions to the *REMC*o CEO.

Once the *rules* are converted into the *procedures*, it will be up to *AEMO* to determine the appropriate person within *AEMO* that is to perform each specified task or make each specified decision, which may be different from *REMC*o’s current practices. *AEMO*’s delegation authority is provided in its Constitution.

The following four subsidiary documents to Chapter 9 of the *rules* will be reviewed and updated prior to the Transition:

- the “Rule Change Procedures”, which will be converted into “Guidelines”;
- the “Rule Change Committee Charter”, which will be changed into the “Procedure Change Committee Charter”;
- the “Technical Working Group Charter” and
- the “BLAST Charter” will be deleted, as the *rule change committee* has terminated this sub-committee.

ATTACHMENT C – Table Indicating the Changes to the Specification Pack (see section 3)

The following table summarises all of the changes that are to be made to the Specification Pack to enable the Transition. AEMO will use the updated Specification Pack to operate the WA gas retail market upon go-live of the Transition.

Ref	Clause	Current	Change
Specification Pack Usage Guideline			
92	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo.
93	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. (a) Several terms have been changed to a general term where possible with a market specific definition; and... This approach is to promote interchange-ability in these documents for the benefit of stakeholders from... 	<ul style="list-style-type: none"> Delete the entire section.
94	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
95	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
96	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
97	2.0		<ul style="list-style-type: none"> All the document version numbers are to be updated.

Ref	Clause	Current	Change
Interface Control Document			
98	Covering page	<ul style="list-style-type: none"> Update the listed client: 	<ul style="list-style-type: none"> Client: Retail Energy Market Company Limited (REMCo) and Australian Energy Market Operator Limited (AEMO).
99	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. <ul style="list-style-type: none"> (a) Several terms have been changed to a general term where possible with a market specific definition; and... This approach is to promote interchange-ability in these documents for the benefit of stakeholders from... 	<ul style="list-style-type: none"> Delete the entire section.
100	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
101	The term <i>relevant Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
102	The term <i>rules</i>	<ul style="list-style-type: none"> The term <i>rules</i> is used. 	<ul style="list-style-type: none"> Replace with <i>Procedures</i>.
FRC B2B System Interface Definitions			
103	Front cover		<ul style="list-style-type: none"> Delete the <i>REMCo</i> logo
104	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail 	<ul style="list-style-type: none"> Delete the entire section.

Ref	Clause	Current	Change
		<p>markets in place since 1 October 2009. The reader needs to be aware of the following changes.</p> <p>(a) Several terms have been changed to a general term where possible with a market specific definition; and...</p> <p>This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...</p>	
105	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
106	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
107	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
108		<ul style="list-style-type: none"> Appendix D, section 9.1 specifies the LVI, but does not require provision of the LVI. 	<ul style="list-style-type: none"> Insert the following text at the beginning of section 9.1 in Appendix D: AEMO will make available the following low-volume interface service for Users that have a market share of no more than 500 MIRNs.
FRC B2M-B2B Hub System Specification			
109	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
110	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. 	<ul style="list-style-type: none"> Delete the entire section.

Ref	Clause	Current	Change
		<p>(a) Several terms have been changed to a general term where possible with a market specific definition; and...</p> <p>This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...</p>	
111	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
112	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
113	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
FRC B2M-B2B Hub System Architecture			
114	Front cover		<ul style="list-style-type: none"> Delete the <i>REMCo</i> logo
115	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. <p>(a) Several terms have been changed to a general term where possible with a market specific definition; and...</p> <p>This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...</p> 	<ul style="list-style-type: none"> Delete the entire section.

Ref	Clause	Current	Change
116	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
117	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
118	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
119	Section 1.4 , Definitions and Acronyms		<ul style="list-style-type: none"> Add the acronym <i>AEMO</i>.
120	Section 1.4 , Definitions and Acronyms	<ul style="list-style-type: none"> Amend the definition of the acronym SAWA. 	<ul style="list-style-type: none"> SAWA – South Australia / Western Australia – two separate jurisdictions for the GRMS, each with its own Market Operator.
FRC CSV Data Format Specification			
121	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
122	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. <ul style="list-style-type: none"> (a) Several terms have been changed to a general term where possible with a market specific definition; and... 	<ul style="list-style-type: none"> Delete the entire section.

Ref	Clause	Current	Change
		This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...	
123	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
124	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
125	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
Connectivity Testing and Technical Certification			
126	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
127	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. <ul style="list-style-type: none"> (a) Several terms have been changed to a general term where possible with a market specific definition; and... <p>This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...</p>	<ul style="list-style-type: none"> Delete the entire section.
128	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.

Ref	Clause	Current	Change
129	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
130	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
131	Section 4		<ul style="list-style-type: none"> Replace WA contact details with AEMO contact details
Readiness Criteria			
132	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
133	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. (a) Several terms have been changed to a general term where possible with a market specific definition; and... This approach is to promote interchange-ability in these documents for the benefit of stakeholders from... 	<ul style="list-style-type: none"> Delete the entire section.
134	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
135	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.

Ref	Clause	Current	Change
136	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
137	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>rule</i> is used. 	<ul style="list-style-type: none"> Replace with <i>clause</i>.
138	Section 2	<ul style="list-style-type: none"> Market participants do not need to become <i>AEMO members</i> to participate in the WA gas retail market, they just need to execute the <i>WA Gas Retail Market Agreement</i>. The prerequisites for testing listed in section 2 need to be updated accordingly. 	<ul style="list-style-type: none"> Readiness Criteria for New Participants ... For WA, new entrants must become members of REMCo parties to the Western Australian Gas Retail Market Agreement (being the agreement between gas market participants for the purposes of section 11ZOF of the Energy Coordination Act 1994 (WA)) prior to participating in the Readiness Testing Process. For SA, no such requirement exists.
B2B Service Order Specifications, Part 1			
139	Front cover		<ul style="list-style-type: none"> Delete the <i>REMCo</i> logo
140	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. (a) Several terms have been changed to a general term where possible with a market specific definition; and... This approach is to promote interchange-ability in these documents for the benefit of stakeholders from... 	<ul style="list-style-type: none"> Delete the entire section.
141	The term <i>REMCo</i>		<ul style="list-style-type: none"> Replace with <i>AEMO</i>

Ref	Clause	Current	Change
B2B Service Order Specifications, Part 2			
No changes required			

ATTACHMENT D – Table Indicating the Changes to the Hub T&Cs (see section 3)

The following table summarises all of the changes that are to be made to the Hub T&Cs to enable the Transition. AEMO will use the updated Hub T&Cs to operate the WA gas retail market upon go-live of the Transition.

Ref	Clause	Current	Change
General Changes			
FRC HUB T&Cs.			
142	Section 1	<ul style="list-style-type: none"> Section 1 makes reference to the <i>Retail Market Procedures</i> in all jurisdictions, and to the <i>Retail Market Rules</i> in Western Australia. The distinction for Western Australia can be deleted with the Retail Market Rules also being renamed as Retail Market Procedures. 	<ul style="list-style-type: none"> If there is any inconsistency between this document and the jurisdictional Retail Market Procedures (as applicable) and the Retail Market Rules in Western Australia, the Retail Market Procedures and Retail Market Rules will prevail to the extent of that inconsistency. <p>Words and phrases in this document which appear in italics have the meaning given to them under the jurisdictional Retail Market Procedures (as applicable) and under the Retail Market Rules in Western Australia unless an intention to the contrary appears</p>
143	Section 2 – Definitions	<ul style="list-style-type: none"> Section 2 makes reference to the <i>Retail Market Procedures</i> in all jurisdictions, and to the <i>Retail Market Rules</i> in Western Australia. The distinction for Western Australia can be deleted with the Retail Market Rules also being renamed as Retail Market Procedures. 	<ul style="list-style-type: none"> FRC HUB means the information system provided by AEMO for the transmission of aseXML messages under the jurisdictional Retail Market Procedures and the Retail Market Rules in Western Australia

Retail Energy Market Company

RULE CHANGE – REQUEST FOR SUBMISSIONS UNDER RULE 400 (1)

C02/16C – REMCo-AEMO Transition

C03/16R – Changes to Explicit Informed Consent Requirements

Introduction

Under the delegation of the REMCo Board, on 29 June 2016, the Rule Change Committee (the “Committee”) endorsed High Impact Rule Changes C02/16C and C03/16R.

On 13 July 2016, REMCo published a notice of consultation for the high impact Rule Change. The Consultation period closed on 27 July 2016 and no objections were received.

REMCo is now seeking submissions on this high impact Rule Change as required under Rule 400(1) of the Rules.

How to make a Submission on the Rule Change

REMCo has endorsed a recommended rule and in accordance with Rule 399 (1) and under the provision of Rule 400(1), now seeks submission on the endorsed rule change from each participant, pipeline operator, prescribed person and interested person.

Under Rule 400(3), if submissions received contain no objection to the endorsed rule change, the Committee must recommend to REMCo that it treat the Rule Changes as low impact, and REMCo must submit the Rule Changes to the Economic Regulation Authority for approval.

Submissions quoting the reference number(s) C02/16C and/or C03/16R,

can be emailed to: remco_administration@aemo.com.au; and
stephen.eliot@remco.net.au;

or by mail to: REMCo Rule Change
C/- AEMO
GPO Box 2008
Melbourne
VIC 3001

Submissions must be received by REMCo no later than **5pm AEST, on 26 August 2016**.

Background Information

1. The REMCo-AEMO Transition (C02/16C)

REMC_o tabled a Gas Market Issues paper regarding C02/16C for consideration at the Committee meeting on 26 June 2016. The Committee endorsed C02/16C as a high impact Rule change by e-mail on 11 July 2016.

On 13 July 2016, REMCo published a notice of consultation for the high impact Rule Change. The Consultation period closed on 27 July 2016 and no objections were received.

REMC_o and AEMO are working on a program to transition responsibility for WA gas retail market operations from REMCo to AEMO, with a target transition date of 31 October 2016.

Changes will need to be made to the REMCo Retail Market Scheme documentation to enable this transition and to create the AEMO Retail Market Scheme. Links are provided to the following documents:

- A “Impact and Implementation Report (IIR) paper for C02/16C:
 - This document explains the rationale for the transition and summarises what changes will be made.
- The draft WA Gas Retail Market Agreement (“WAGRMA”) :
 - The WAGRMA will replace the REMCo Constitution as the “Agreement” between the market operator and the market participants to bind AEMO and the market participants to the AEMO Retail Market Scheme. The WAGRMA will have a different form from the REMCo Constitution, but will have the same function on essentially the same terms.
- The draft Retail Market Procedures:
 - The REMCo Retail Market Rules will be converted into the AEMO Retail Market Procedures. This document is the current version of the Retail Market Rules with the necessary changes indicated to establish the Retail Market Procedures.
- The draft Specification Pack:
 - Some changes will need to be made to the Specification Pack as a result of the changes to the Retail Market Procedures. The attached documents are the current versions of the Specification Pack with the necessary changes indicated to enable the transition.
- The draft FRC Hub Operational Terms and Conditions:
 - Some changes will need to be made FRC Hub Operational Terms and Conditions as a result of the changes to the Retail Market Procedures. The attached document is the current version of the FRC Hub Operational Terms and Conditions with the necessary changes indicated to enable the transition.

2. Changes to Explicit Informed Consent Requirements (C03/16R):

REMCo tabled a Gas Market Issues paper regarding C03/16R for consideration at the Committee meeting on 26 June 2016, and the Committee endorsed C03/16C as a high impact Rule change at that meeting.

On 13 July 2016, REMCo published a notice of consultation for the high impact Rule Change. The Consultation period closed on 27 July 2016 and no objections were received.

Changes are being proposed to the explicit informed consent (“EIC”) requirements for large customers, with a target go-live date of 31 October 2016.

Changes will need to be made to Appendix 6 of the Retail Market Rules to enable the changes to the EIC requirements. A link is provided to the following document:

- A IIR Paper for C03/16C:
 - This document explains the rationale for the changes to the EIC requirements, including the specific changes being proposed to Appendix 6 of the Retail Market Rules.

How to Obtain More Information

The Impact and Implementation Reprot (IIR) for these Rule change and the related documents may be found on the REMCo website under the “Rule Change Committee” Resource section at the following link:

<http://www.remco.net.au/rule-change-notice>

IMPACT & IMPLEMENTATION REPORT – SUMMARY SECTION

(For REMCo to complete and administer)

Rule Change Number	C02/16C (Issue 186)		
Impacted jurisdiction(s)	WA		
Proponent	Stephen Eliot	Company	REMCo
Industry consultative forum(s) used	RCC	Date concluded by Rule Change Committee ("RCC")	28 July 2016
Rule change ranking (as per Chapter 9): <ul style="list-style-type: none"> Non-substantial Low impact High impact 	High impact.		
Short description of change(s)	AEMO Transition		
Rule(s) or documentation impacted	<p>All REMCo retail market scheme documentation will be impacted, including:</p> <ul style="list-style-type: none"> The Constitution of Retail Energy Market Company Limited (the "REMCo Constitution"), which will be converted into the WA Gas Retail Market Agreement (the "WAGRMA") – see Attachment A; The Retail Market Rules (the "Rules"), which will be renamed the Retail Market Procedures (the "Procedures") –see Attachment B; The Specification Pack (all documents) – see Attachment C; and The FRC Hub Operational Terms and Conditions (the "Hub T&Cs") – see Attachment D. 		
Summary of the change(s)	The changes to the REMCo retail market scheme documentation will enable the transfer of responsibility for operating the WA gas retail market from REMCo to the Australian Energy Market Operator ("AEMO").		
I&IR prepared by	Stephen Eliot	Approved by:	Stephen Eliot
Date I&IR published	29 July 2016	Date consultation concludes	26 August 2016
Contact address for written responses	REMCo_Administration@aemo.com.au stephen.eliot@remco.net.au		
Email address for responses	REMCo_Administration@aemo.com.au stephen.eliot@remco.net.au		
Other key contact information	<p>Stephen Eliot (REMCo): 0421 093 598</p> <p>Danny McGowan (AEMO): (03) 9609 8447</p>		

CRITICAL EXAMINATION OF PROPOSAL

1. Description of change(s) and reasons for change(s).

REMCo, the Australian Energy Market Operator (“AEMO”) and the WA gas retail market participants have considered the long-term future of the WA gas retail market; and concluded that it would be appropriate to pursue the transition of WA gas retail market operations from REMCo to AEMO (the “Transition”). The rationale for this conclusion is:

- REMCo and its governance model have worked well historically because it:
 - is efficient;
 - is responsive; and
 - is low cost;
 - has a local interface.
- However, external forces have led to a loss of scale for REMCo, including:
 - the SA Government required REMCo to transfer its SA gas retail market operations to AEMO in 2009;
 - the WA Government awarded operation of the WA Gas Bulletin Board and Gas Statement of Opportunities to the Independent Market Operator (“IMO”) in 2010; and
 - the WA Government transferred IMO’s functions to, and awarded electricity retail market operations to AEMO in 2015.
- This loss of scale left REMCo and WA gas retail market participants with two options:
 - (1) Retain REMCo as the WA gas retail market operator, which would result in:
 - increased cost and reduced efficiency; but
 - keeping the local interface and responsiveness.
 - (2) Transition WA gas retail market operations to AEMO, which:
 - would likely result in reduced costs and maintained efficiency; and
 - could lead to loss of the local interface and putting responsiveness at risk.

The REMCo Board held a strategic development session on 8 October 2015, where it concluded that option (2) is preferred, given:

- the role that AEMO already plays in the WA gas retail market as a service provider to REMCo; and
- AEMO’s vast expertise in operating other Australian gas and electricity retail markets.

REMCo met with the Minister for Energy (the “Minister”), the Minister’s office, and the Public Utilities Office (“PUO”) on several occasions from August 2015 to discuss the proposition for the Transition. Feedback from the WA Government was that:

- the WA gas retail market is continuing to operate efficiently;
- the WA Government would prefer that the WA gas retail market participants consider and make a proposal to Government on any changes that may be needed to the market structure; and
- it is reasonable for REMCo and AEMO to work out the details for the Transition and determine how and when it is to occur.

	<p>The REMCo Board met on 24 March 2016, where it agreed to:</p> <ul style="list-style-type: none"> • REMCo’s “Transition Strategy” (its vision and objectives), covering: <ul style="list-style-type: none"> ○ the WA gas retail market governance model; ○ treatment of the Retail Market Rules (the “Rules”); ○ treatment of the REMCo’s Gas Retail Market Systems (“GRMS”); ○ financial implications for the Transition; ○ operational implications for the Transition; and ○ timing for the Transition. • Development of a “Transition Plan” to cover: <ul style="list-style-type: none"> ○ AEMO membership; ○ the “agreement between REMCo Members” (see below); ○ REMCo and AEMO Member acceptance; ○ REMCo Scheme amendments; ○ AEMO vs REMCo Objects; ○ budget and fee setting; ○ resourcing, management and KPIs for the WA gas retail market; ○ IT management (transfer and updates to the GRMS); ○ matters impacting small Users (those with ≤500 customers) and Self-Contracting Users (“SCUs”); ○ legal and contractual issues; and ○ winding up REMCo. <p>The Rule Change Committee (the “RCC”) was introduced to the concept of the Transition at RCC Meeting No. 76, on 22 March 2016. The RCC and AEMO have subsequently worked diligently on the details of how the Transition is to occur, and in particular on the changes to the REMCo Scheme documentation.</p> <p>REMCo and AEMO executed a binding Memorandum of Understanding (“MOU”) on 30 May 2016 that agrees to the Transition based on a set of principles that will protect the interests of WA gas retail market participants and gas consumers. The MOU commits REMCo and AEMO to target go-live for the Transition on 31 October 2016.</p> <p>The concept for the Transition is as follows:</p> <p><u>The WA gas retail market structure:</u></p> <ul style="list-style-type: none"> • The WA gas retail market is governed by the <i>Energy Coordination Act 1994</i> (the “Act”). The Act requires all gas distribution systems to have an approved “Retail Market Scheme” (with some exceptions). • The Act specifies that Retail Market Schemes are to have the following components (section 11ZOF): <ul style="list-style-type: none"> ○ a “Formal Entity” to operate the market (the “Market Operator”); ○ an “Agreement” between the Market Operator and the Market Participants (Retailers and Network Operators); and ○ a set of “retail market rules” (section 11ZOG of the Act specifies the required elements of the retail market rules). • Section 11ZOM of the Act specifies that the Economic Regulation Authority (the “Authority”) must approve any Retail Market Scheme amendments before they can be implemented by the Market Operator.
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What will change:

- REMCo operates the only approved Retail Market Scheme and will apply to the Authority to amend its Scheme to allow the Transition.
- The Retail Market Scheme structure will be amended as follows:

	Current Retail Market Scheme	New Retail Market Scheme
Formal Entity:	○ REMCo.	○ AEMO .
Agreement:	○ REMCo Constitution.	○ The WAGRMA .
Rules:	○ the Rules; ○ the Specification Pack; and ○ the Hub T&Cs.	○ The Procedures ; ○ The AEMO Specification Pack ; and ○ the Hub T&Cs .

- AEMO will replace REMCo as the “Formal Entity”.
- The WAGRMA will replace the REMCo Constitution as the “Agreement”. The WAGRMA will have a different form from the REMCo Constitution, but will have the same function on essentially the same terms.
- The Rules will be changed into the Procedures.
 - Some clauses will be changed to enable the transfer of functions to AEMO and to align the WA gas retail market processes with AEMO processes.
 - There will be numerous minor Procedure changes and only two material changes to (see section 2 below for details):
 - Chapter 6 (compliance and interpretation); and
 - Chapter 9 (Procedure change process).
- REMCo Members will have the option to become AEMO Members.

What will not change:

- Most practical aspects of the Retail Market Scheme will not change.
- The market will still be governed by the Act, and Authority approval will still be required for all Retail Market Scheme amendments.
- Most of the Procedures will stay substantively the same, including:
 - Chapter 1 (interpretation and administration);
 - Chapter 2 (the databases);
 - Chapter 3 (MIRN transactions);
 - Chapter 4 (metering);
 - Chapter 5 (allocation, reconciliation, and swing);
 - Chapter 7 (reporting and audits);
 - Chapter 8 (administration);
 - Chapter 10 (general provisions); and
 - Appendices 1 to 10.

Only administrative changes will be made to the Specification Pack and Hub T&Cs; so the WA gas retail market technical protocols, systems, and interfaces will not change. This will ensure that the Transition will not have any material costs for WA gas retail market participants or gas consumers.

<p>2. Reference documentation:</p> <ul style="list-style-type: none"> • Retail Market Rules (the “Rules”); • Business/Information Specification Pack Reference; and/or • Other Reference. 	<ul style="list-style-type: none"> • The REMCo Constitution, which will be converted into the WAGRMA; • The Rules, which will be converted into the Procedures; • The Specification Pack, including: <ul style="list-style-type: none"> ○ Specification Pack Usage Guidelines; ○ Interface Control Document; ○ FRC B2B System Interface Definition; ○ FRC B2M-B2B Hub System Specifications; ○ FRC B2M-B2B Hub System Architecture; ○ FRC CSV Data Format Specification; ○ Connectivity Testing and Technical Certification; ○ Readiness Criteria; ○ B2B Service Order Specification Part 1; and ○ B2B Service Order Specification Part 2. • The Hub T&Cs.
<p>3. The high-level details of the change(s) to the existing Rules. This includes:</p> <ul style="list-style-type: none"> • a comparison of the existing operation of the Rules to the proposed change to the operation of the Rules; and • a marked up version of the proposed Rule changes (see Attachment A). 	<p>There will be a large number minor Scheme documentation changes, including:</p> <ul style="list-style-type: none"> • replacing references to “REMCo” with “AEMO” in the Rules, Specification Pack, and Hub T&Cs; • renaming the Rules as the Procedures (including any references to the Rules in the Rules, Specification Pack and Hub T&Cs); • inserting a new clause 7A in the Procedures outlining the objectives for administering the Scheme (i.e. inserting the REMCo Primary aim and Objects from the REMCo Constitution); • clarifying clause 362A to give AEMO ability to charge lower joining and annual fees to small Users and SCUs, consistent with current REMCo policy; and • cleaning up some other aspects of the Scheme documentation, including: <ul style="list-style-type: none"> ○ fixing referencing and other minor errors; ○ removing spent provisions; ○ removing overlapping provisions that exist in other WA regulatory artefacts; ○ adjusting definitions to reflect AEMO’s usage of terms; and ○ picking up two other changes that have been agreed by the RCC: <ul style="list-style-type: none"> – Low impact rule change, C01/16R – customer transfer on non-business days;¹ and – High impact rule change, C03/16R – EIC – verbal consent for large customers.² ○ minor typographical errors identified during the Proposed Rule Change (PRC) consultation. <p>There will be three significant changes to the Retail Market Scheme:</p> <ul style="list-style-type: none"> • Replacing the REMCo Constitution with the WAGRMA.

¹ See ref 13 in Attachment A for more information on rule change C01/16R.

² See ref 81 in Attachment A for more information on rule change C03/15R.

	<ul style="list-style-type: none"> • Changing some aspects of Chapter 6 (compliance and interpretation), including: <ul style="list-style-type: none"> ○ AEMO will not have the power to make Procedure breach and interpretation determinations – this power will rest with the independent Compliance Panel created under the Procedures; ○ the Compliance Panel will have authority to delegate power to AEMO to make determinations on whether a compliance matter is material (this will maintain the efficiency of the current compliance arrangements); and ○ the Compliance Panel will be required to meet at least once per year to: <ul style="list-style-type: none"> – receive updates on any compliance matters and any Retail Market Scheme amendments; and – confirm the Compliance Panel guidelines and delegations. • Changing some aspects of Chapter 9 (Procedure change process), including: <ul style="list-style-type: none"> ○ AEMO will make all decisions in the Procedure change process; ○ Authority approval will still be required for any Retail Market Scheme amendments; ○ AEMO must consult with the Procedure Change Committee (“PCC”) on any Retail Market Scheme amendments, but the PCC will no longer be a decision making body; and ○ AEMO must publish on its website all of its applications to the Authority for approval of Retail Market Scheme amendments so that Market Participants can make submissions to the Authority if they disagree with the application.
<p>4. Explanation regarding the order of magnitude of the change (e.g. material, non-material or non-substantial).</p>	<p>Chapter 9 of the Rules indicates that:</p> <ul style="list-style-type: none"> • A “non-substantial” change is one that does not have an effect on the operations of REMCo, interested persons or prescribed persons and merely corrects typographical errors, grammatical errors, cross-referencing errors and other similar trivial defects. • A “low impact change” is one that does not have a material impact on: <ul style="list-style-type: none"> ○ the information technology systems of REMCo, market participants, pipeline operators or prescribed persons; ○ consumer protection mechanisms under the RMRs; or ○ REMCo, participants, pipeline operators or prescribed persons. • A “high impact” change is a one that is not classified as having a “non-substantial impact” or a “low impact”. <p>The proposed REMCo Scheme changes are clearly high impact changes because they will have a material impact on REMCo, since REMCo will have no remaining functions after the Transition and will likely be wound up in 3-6 months.</p>

ASSESSMENT OF LIKELY EFFECT OF PROPOSAL

<p>5. Overall Industry cost/benefit analysis (tangible / intangible / risk) and/or cost estimates</p>	<ul style="list-style-type: none"> • AEMO will adopt REMCo's current 2016/2017 budget and fees (see http://www.remco.net.au/fees-and-revenue), from when AEMO takes over the WA gas retail functions until 30 June 2017, subject to AEMO Board approval. • Costs for WA gas retail market functions will be ring-fenced, so there will be no cross-subsidisation between the WA gas retail market and any of the other market operated by AEMO (gas or electricity, wholesale or retail). • As with other markets operated by AEMO, the WA gas retail market fees will cover a portion of AEMO corporate costs (e.g. rent, insurance, Board director fees). • AEMO will publish its Draft Budget and Fees Report for 2017/18 for the WA Gas Retail in about March 2017, and the Final Budget and Fees Report for 2017/18 published in May 2017.
<p>6. The likely effect of the change(s) on stakeholders (e.g. industry or end-users)</p>	<p>The Transition will have the following impacts:</p> <ul style="list-style-type: none"> • Market Operations: <ul style="list-style-type: none"> ○ Responsibility for operating the WA gas retail market will transfer from REMCo to AEMO; and REMCo will likely be wound up in 3-6 months' time after the Transition. • Market participation: <ul style="list-style-type: none"> ○ Users and Network Operators will need to sign the WAGRMA to continue to participate in the WA gas retail market, and will have the option to become AEMO Members upon signing the WAGRMA, but will no longer be REMCo Members when REMCo is wound up. ○ There will be no impact on Pipeline Operators, Shippers or Swing Service Providers. • Changes to the Procedure compliance process: <ul style="list-style-type: none"> ○ See section 3 for details on the changes to be made. ○ These changes have been designed to increase independence of the compliance process without negatively impacting on efficiency of the process. • Changes to the Procedure change process: <ul style="list-style-type: none"> ○ See section 3 for details on the changes to be made. ○ These changes will remove voting power of the RCC and give AEMO the power to make decision on applying to the Authority for Retail Market Scheme changes, which should increase efficiency of the process. ○ AEMO will be required to consult with the PCC in developing any Scheme changes and publish any applications to the Authority for Retail Market Scheme changes, so market participants will be able to make submissions to the Authority if they disagree with any decisions by AEMO. • Potential reduced costs (relative to not proceeding with the Transition): <ul style="list-style-type: none"> ○ There are expected to be efficiencies, but a detailed cost analysis has not yet been completed.

	<ul style="list-style-type: none"> ○ As indicated in section 6, AEMO has adopted the REMCo budget and fees for 2016/17, and will consult on the 2017/18 budget in March 2017. Any efficiencies that AEMO can achieve will be reflected in the budgets for 2017/18 onwards. • Management of the WA gas retail market: <ul style="list-style-type: none"> ○ Transferring responsibility for operating the WA gas retail market to AEMO should have little impact on market operations because: <ul style="list-style-type: none"> – AEMO already provides market operations support to REMCo and operates the FRC Hub for WA gas retail market communications; – AEMO is a large and well-resourced market operator with significant experience in gas retail market operations; – AEMO has a WA “local interface” now that AEMO is the WA electricity market operator with an office in Perth; and – There will be no changes to the GRMS (see section 8), and CGI will continue to operate the GRMS.³ ○ REMCo and AEMO are discussing steps to ensure that AEMO remains responsive to WA participants, which will be considered as part of the “Transition Agreement” (this will not be part of the Retail Market Scheme).⁴ • Impact on small Users and SCUs: <ul style="list-style-type: none"> ○ Ensuring that there are no barriers to competition in the WA gas retail market is a major principle enshrined in the Retail Market Scheme. ○ Two aspects of the Retail Market Scheme could be a barrier to competition for small Users and SCUs: <ul style="list-style-type: none"> – REMCo joining fees and annual fees may be too high to allow small Users and SCUs to enter and remain in the market; and – REMCo system requirements may be too onerous to allow small Users and SCUs to efficiently participate in the market. ○ REMCo addresses these potential barriers to competition by: <ul style="list-style-type: none"> – having an “Associate Membership” category under the REMCo Constitution, and charging joining and annual fees to Associate Members that are 20% of the fees for standard Members; and – providing a Low Volume Interface (“LVI”) that allows small Users and SCUs to use a less onerous and less expensive market interface.
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³ Intellectual Property in the GRMS is to be transferred from REMCo to AEMO at go-live of the Transition; and CGI will continue to operate the GRMS, but under contract with AEMO rather than REMCo.

⁴ These measures will include:

- appointing a temporary WA Gas Retail Market Manager to be a point of contact for WA gas retail market participants, with responsibility for addressing any market issues; and
- undertaking and publishing the results of a regular WA gas retail market stakeholder feedback process.

	<ul style="list-style-type: none"> ○ REMCo and AMEO have proposed changes to: <ul style="list-style-type: none"> – the Procedures to allow AEMO to continue to charge lower fees to small Users and SCUs; and – details about LVI is described in Appendix C in the FRC B2M-B2B Hub System Specifications which is part of the Specification Pack – this document will be amended to ensure that the LVI remains available after the Transition.
7. Testing requirements	<p>There will be no material changes to the parts of the Scheme that impact IT systems, including:</p> <ul style="list-style-type: none"> • Chapter 2 (the databases) of the Procedures; • Chapter 3 (MIRN transactions) of the Procedures; • Chapter 4 (metering) of the Procedures; • Chapter 5 (allocation, reconciliation, and swing) Procedures; • the Specification Pack; or • the Hub T&Cs. <p>As a result, no changes will need to be made to the GRMS or to market participants' systems as a result of the Transition, and the changes will not require any testing.</p>
8. Consideration of the recommended Rule change by REMCo under Rule 399. REMCo must either: <ul style="list-style-type: none"> ▪ endorse the recommended rule change; or ▪ reject the recommended rule change 	<p>REMCo has determined to endorse Rule Change C02/16C under Rule 399 on the basis of:</p> <ul style="list-style-type: none"> • the significant benefits to this Rule change as indicated in sections 5 and 6 above; and • REMCo did not receive any objections to proposed Rule Change C02/16C, as indicated in section 9 below.
9. Consultation forum outcomes (e.g. the conclusions made on the change(s), whether there was unanimous approval, any dissenting views)	<p>REMCo, AEMO and the RCC worked together to develop the WAGRMA, the Procedures v1, the changes to the Specification Pack, and the changes to the Hub T&Cs. The RCC endorsed these documents via e-mail on 11 July 2016.</p> <p>REMCo conducted the first round of consultation on this high-impact Rule change, as required by Rule 398(2), on 13 to 27 July 2016. REMCo did not receive any objections to the proposed Rule changes.</p> <p>The RCC met on 27/07/16 and continues to support C02/16C. The RCC discussed:</p> <ul style="list-style-type: none"> (i) adding a new note at the start of Chapter 9 that prompts a review of the Procedure change guidelines if changes are made to Chapter 9 (see ref 67A Attachment B), (ii) correcting minor typographically error identified by AEMO (see ref 4 in Attachment B); and (iii) amending the numbering in the Procedures (see ref 7 in Attachment B). <p>Item (i) and (ii) were agreed at the RCC meeting held on the 27/07/16 whilst item (iii) was subsequently agreed on 29/07/16.</p>

<p>10. Legal review:</p> <ul style="list-style-type: none"> ▪ does this rule change impact the ACCC authorisation? ▪ is an external legal review required? 	<p>The changes to enable the Transition have been subject to the following legal review:</p> <ul style="list-style-type: none"> • Jackson McDonald has: <ul style="list-style-type: none"> ○ reviewed the Act to ensure that the Authority has the power under section 11ZOM of the Act to enable the Transition by approving the Scheme changes outlined in section 2 and 3 above; ○ drafted the WAGRMA; ○ drafted and reviewed the material changes to Chapters 6 and 9 of the Procedures; ○ drafted and reviewed the new clause 7A of the Procedures; and ○ reviewed some changes to clause 2 (definitions). • Grondal Bruining has assisted REMCo in applying to the ACCC for a minor variation to REMCo's authorisation to transfer the REMCo authorisation to AEMO. The application was made on 19 July 2016, and a decision from the ACCC is pending.⁵
<p>11. Should the proposed Rule change be made, (with or without amendments)?</p>	<p>Rule Change C02/16R should be made as outlined in the attachments to this Impact and Implementation Report.</p>
<p>12. If applicable, a proposed effective date for the proposed Rule change(s) to take effect and justification for that timeline.</p>	<p>The proposed effective date for the Transition is 31 October 2016. This timing has been selected because October/November is a relatively low-activity period in the WA gas retail market (lower gas flow and fewer customer transfers), and is therefore the optimal time to implement the Transition, prior to the December/January holiday season. Any delay past November will likely increase costs and require both REMCo and AEMO to replan the transition program and agree a new effective date that would be post 2016.</p>

⁵ REMCo has authorisation from the ACCC to operate the WA gas retail market in accordance with Chapters 5 and 6, and Appendices 7 and 8 of the Rules. The ACCC has been asked to approve a minor variation to the authorisation to allow AEMO to operate the WA gas retail market in accordance with Chapters 5 and 6, and Appendices 7 and 8 of the Procedures.

ATTACHMENT A – WA Gas Retail Market Agree

The following is a copy of the WA Gas Retail Market Agreement.

WA Gas Retail Market Agreement

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WA Gas Retail Market Agreement

Date: 2016

Parties

Australian Energy Market Operator Level 22, 530 Collins Street, Melbourne, Victoria 3000

AEMO

and

The Parties listed in Schedule 1.

Recitals

- A. AEMO's functions include operating the National Electricity Market; gas retail markets in Victoria, New South Wales, Australian Capital Territory, South Australia and Queensland; the Short Term Trading Market; the Gas Supply Hub; the Western Australian Wholesale Electricity Market; the Declared Transmission System in Victoria; the Gas Bulletin Board in Western Australia; the Natural Gas Services Bulletin Board for the South East of Australia; developing the Gas Statement of Opportunities for Western Australia; and acting as the National Transmission Planner.
- B. REMCo operates a gas retail market scheme for gas distribution systems in Western Australia (**WA Gas Retail Market**) approved by the Minister for Energy of Western Australia under section 44 of the *Energy Legislation Amendment Act 2003* (WA) and amended by the Economic Regulatory Authority under section 11ZOM of the *Energy Coordination Act 1994* (WA) (**Scheme**).
- C. Section 11ZOF of the *Energy Coordination Act 1994* (WA) (**ECA**) requires the Scheme to consist of:
 - (a) one or more agreements made between persons who are gas market participants in relation to that system (**WA Gas Retail Market Agreement**);
 - (b) a formal entity (whether a company, partnership, trust or otherwise) to provide the structure through which the scheme is administered (**Formal Entity**); and
 - (c) a set of retail market rules.
- D. REMCo and AEMO agreed that the Scheme should be amended to transfer operation of the Scheme from REMCo to AEMO by:
 - (a) AEMO replacing REMCo as the Formal Entity of the Scheme;
 - (b) a new WA Gas Retail Market Agreement being entered into between AEMO and gas market participants in relation to the WA Gas Retail Market; and
 - (c) changing the retail market rules of the Scheme into retail market procedures.
- E. This agreement is the new WA Gas Retail Market Agreement for the purposes of section 11ZOF(1)(a) of the ECA between persons who are gas market participants in relation to the WA Gas Retail Market.

Provisions

1. Interpretation

1.1 In this Agreement, unless the context requires otherwise, the following expressions have the following meanings:

Admission Note	has the meaning given to it in clause 5.1 of this Agreement.
AEMO	means the Australian Energy Market Operator (ACN 072 010 327).
AEMO Constitution	means the constitution governing AEMO.
AEMO Member	means a member as defined in clause 1.1 of the AEMO Constitution.
Agreement	means this WA Gas Retail Market Agreement, including any schedules or annexures thereto.
Commencement Date	means the date on which the amendment to the Scheme to, amongst other things, transfer administration of the Scheme from REMCo to AEMO under section 11ZOL of the ECA takes effect.
Compliance Panel	means the independent Compliance Panel constituted under the Retail Market Procedures.
Deadline	has the meaning given to it in clause 5.4 of this Agreement.
ECA	means the <i>Energy Coordination Act 1994</i> (WA).
Eligible	has the meaning given to it in clause 5.1 of this Agreement.
ERA	means the Economic Regulation Authority established under the <i>Economic Regulation Authority Act 2003</i> (WA).
Formal Entity	has the meaning given to it in Recital C(b) of this Agreement.
Gas Distribution Operator	has the meaning given to it in section 11ZOC(1) of the ECA.
New Participant	has the meaning given to it in clause 5.1 of this Agreement.
Party	means a party to this Agreement from time to time, and Parties means one or more of them.
REMCo	means the Retail Energy Market Company Limited (ACN 103 318 556).
Retail Gas Operator	has the meaning given to it in section 11ZOC(1)(b) of the ECA.

Retail Market Procedures	means the Retail Market Procedures approved as part of the Scheme for the purposes of section 11ZOF(1)(c) of the ECA.
Scheme	has the meaning given to it in Recital B of this Agreement.
Scheme Participant	means a WA Gas Retail Market Participant who is a Party to this Agreement from time-to-time, by reason of that WA Gas Retail Market Participant having executed this Agreement, or by reason of that WA Gas Retail Market Participant becoming a Party to this Agreement in accordance with clause 5.
Self-Contracting User	has the meaning given to it in the Retail Market Procedures.
WA	means Western Australia.
WA Gas Retail Market	means the Western Australian Gas Retail Market.
WA Gas Retail Market Agreement	has the meaning given to it in Recital C(a) of this Agreement.
WA Gas Retail Market Participant	means a Gas Distribution Operator, a Retail Gas Operator or a Self-Contracting User.

1.2 In this Agreement, unless the context requires otherwise:

- (a) a reference to a statute includes its subordinate legislation and a modification or re-enactment of either;
- (b) headings are for convenience only and do not affect interpretation;
- (c) “under” includes by, by virtue of, pursuant to and in accordance with;
- (d) “including” and similar expressions are not words of limitation;
- (e) if a word or phrase is defined, other grammatical forms of that word or phrase have a corresponding meaning; and
- (f) unless the context otherwise requires, a reference to:
 - (i) a person includes a corporation, a firm, a body corporate, an unincorporated association or any authority;
 - (ii) the singular includes the plural;
 - (iii) time is a reference to Perth, Western Australia time; and
 - (iv) \$ is to Australian currency unless denominated otherwise.

2. Term

2.1 This Agreement commences on the Commencement Date and continues until the earlier of the date that:

- (a) AEMO is wound up in accordance with its Constitution or otherwise ceases to exist as a legal entity;

- (b) this Agreement is terminated; or
- (c) the Scheme is no longer an approved Scheme under section 44 of the *Energy Legislation Amendment Act 2003 (WA)* or section 11ZOJ of the ECA.

3. Termination

- 3.1 This Agreement may only be terminated by the unanimous written agreement of all Parties.
- 3.2 Upon termination of this Agreement for any reason this clause will survive termination and the Parties will be bound by these provisions.
- 3.3 Subject to clause 3.4:
 - (a) a breach of this Agreement by a Party does not give rise to any claim, action, dispute, demand, complaint, suit, proceeding, liability or cost; and
 - (b) a breach of this Agreement or any aspect of the Scheme and the liability of each Party with respect to any such breach is governed by the ECA, or the Retail Market Procedures, or both, as applicable.
- 3.4 AEMO may bring a claim, action, demand, suit or proceeding for any breach by a Scheme Participant of an obligation to pay an amount to AEMO pursuant to the Retail Market Procedures.
- 3.5 Termination will not affect any rights or obligations of the Parties which may have accrued on or before termination.

4. Nature and purpose

- 4.1 This Agreement is an agreement for the purposes of section 11ZOF(1)(a) of the ECA.
- 4.2 AEMO shall be bound by and operate in accordance with, and observe the roles, functions, powers and obligations set out in the respective Retail Market Procedures, as amended from time to time.
- 4.3 The primary aim of AEMO, in respect of the ECA, is to develop and operate cost efficient and effective retail market arrangements, which are fair and equitable, to facilitate competition in the WA Gas Retail Market.
- 4.4 AEMO must act in a manner which treats all Scheme Participants fairly and equitably and does not unfairly discriminate between the interests of Scheme Participants.
- 4.5 Upon becoming a Party to this Agreement, AEMO and Scheme Participants agree:
 - (a) to be bound by and observe the terms of the Retail Market Procedures;
 - (b) that any amendments to the Retail Market Procedures shall be made in accordance with the terms of the Retail Market Procedures for the time being in force; and
 - (c) to abide by any determination made by the Compliance Panel in a matter to which the Scheme Participant is a party.

5. New Participants

- 5.1 A person that is not a Party to this Agreement may apply to AEMO to become a Party to this

Agreement (**New Participant**) if it is eligible to do so. A New Participant will be eligible only if the person:

- (a) is a WA Gas Retail Market Participant who is lawfully entitled to carry on that business;
- (b) honestly and accurately provides to AEMO the information required under clause 5.2;
- (c) is not being wound up in accordance with the *Corporations Act* 2001 (Cth);
- (d) is not immune from liabilities incurred under this Agreement or as a Scheme Participant;
- (e) is capable of being sued in its own name in a court of competent jurisdiction; and
- (f) agrees in writing to become bound by the terms and conditions of this Agreement.

(Eligible)

5.2 An application by a New Participant under clause 5.1 must be in the form of an admission note as annexed in the Annexure and must:

- (a) specify the name and ABN (if applicable) of the New Participant;
- (b) specify whether the New Participant is a Gas Distribution Operator, a Retail Gas Operator or a Self-Contracting User;
- (c) state that the New Participant is applying to become a Party to this Agreement; and
- (d) be signed by an authorised officer of the New Participant.

(Admission Note).

5.3 An Admission Note is an offer from the New Participant to the Parties (being AEMO and each WA Gas Retail Market Participant who was initially a Party to this Agreement and each WA Gas Retail Market Participant subsequently joining this Agreement under this clause 5) to amend this Agreement to add the New Participant as one of the Parties.

5.4 AEMO must accept an Admission Notice if the New Participant is Eligible. If AEMO is not satisfied a New Participant is Eligible (acting reasonably), it may reject or defer consideration of an Admission Note.

5.5 If a New Participant provides AEMO with an Admission Note, and AEMO provides written confirmation to the New Participant before 5:00 PM on the 10th Business Day after the notice is given (**Deadline**) that the Admission Note has been accepted, then the Parties are deemed by this clause 5.5 to have agreed irrevocably to the offer referred to in clause 5.3, and, subject to approval of the ERA, this Agreement is amended from the Deadline or such date as approved by the ERA to add the New Participant as one of the Parties.

6. Registration

6.1 WA Gas Market Participants that are Parties to this Agreement will be registered with AEMO as a Scheme Participant for the WA Gas Retail Market.

6.2 Gas Distribution Operators and Retail Gas Operators that are parties to this Agreement are members of the Scheme for the purposes of Part 2B of the ECA.

- 6.3 AEMO will maintain a register of all current Scheme Participants.
- 6.4 Subject to the AEMO Constitution, Scheme Participants may apply to become AEMO Members.

7. Exit provisions

- 7.1 A WA Gas Retail Market Participant ceases to be a Party to this Agreement and a Scheme Participant at the time that it ceases to be Eligible.
- 7.2 Each Scheme Participant must give information to AEMO on request to verify that it continues to be Eligible.
- 7.3 A WA Gas Retail Market Participant ceasing to be a Party to this Agreement and a Scheme Participant does not affect:
- (a) the rights of a Party to recover an amount or the obligation of a Party to pay an amount, that became payable prior to the date the Party ceased to be a party to this Agreement or a Scheme Participant;
 - (b) any rights of a Party that otherwise relate to, or may arise in the future from, any breach or non-observance of obligations under this Agreement;
 - (c) the obligation of a Party under any provision of the Retail Market Procedures relating to exiting the market.
- 7.4 Upon the date on which a WA Gas Retail Market Participant ceases to be a Party to this Agreement, this Agreement remains in full force and effect and binding on each of the remaining Scheme Participants.

8. Notices

- 8.1 Subject to clauses 8.2 and 8.3, a Party may deliver a notice in connection with this Agreement to another Party by email to the other Party at the email address attached to that Party in Schedule 1.
- 8.2 A Party must notify the other Parties of any change to its email address for the delivery of notices.
- 8.3 Upon receipt of notice under clause 8.2, the new email address becomes the Party's address for service of notices.
- 8.4 A notice takes effect at the time stated in the notice, except that if no time is stated in the notice or the time stated is before receipt, then a notice takes effect on receipt.

9. Costs

Each Party agrees to bear its own costs and expenses in complying with its obligations under this Agreement, except where expressly stated otherwise.

10. Assignment

No Party may assign, novate or transfer a right or obligation under this Agreement without the other Parties' prior written consent.

11. Amendments

This Agreement may only be varied by agreement in writing between the Parties and with the approval of the ERA under section 11ZOM of the ECA.

12. Governing Law

This Agreement is governed by the laws of Western Australia.

13. Severability

13.1 If at any time any provision of this Agreement is or becomes illegal, invalid or unenforceable at law, that provision will not affect or impair the legality, validity or enforceability of any other provision of this Agreement.

13.2 The remaining provisions of this Agreement remain in full force and effect.

14. Entire agreement

This Agreement constitutes the entire agreement between the Parties as to its subject matter and supersedes all prior negotiations, representations, proposals, undertakings and agreements, whether written or oral, relating to the subject matter of this Agreement.

15. Further Assurance

Each Party must do everything necessary to give full effect to this Agreement.

16. Counterparts

16.1 The Parties may execute this Agreement in any number of counterparts, which taken together constitute one instrument.

16.2 The Parties may exchange counterparts by scanning the entire duly executed counterpart and emailing it to the other Party.

Schedule 1 – Parties

Number	Name and address	Contact person	Email
1.	[insert]		[insert]
2.	[insert]		[insert]
3.	[insert]		[insert]
4.	[insert]		[insert]
5.	[insert]		[insert]
6.	[insert]		[insert]
7.	[insert]		[insert]
8.	[insert]		[insert]
9.	[insert]		[insert]

Annexure 1 – Admission Note

Admission Note

New Participant name: [insert]

New Participant ABN: [insert]

New Participant address: [insert]

New Participant contact person: [insert]

New Participant email address: [insert]

New Participant Category: [Gas Distribution Operator / Retail Gas Operator / Self-Contracting User] (delete whichever are not applicable)

[Insert name of New Participant] hereby applies to become a Party to the Western Australian Gas Retail Market Agreement dated [insert] (**Agreement**).

[Insert name of New Participant] acknowledges and agrees that if this application is accepted and [insert name of New Participant] is registered in accordance with the Agreement, [insert name of New Participant] agrees to be bound by the terms and conditions of the Agreement.

Defined terms used in this Admission Note have the same meaning as given to them in the Agreement.

Signed by [insert name and ABN of New Participant]:)
)
)

Signature of authorised officer

Date

Name of authorised officer

[Insert position of authorised officer]

Executed by the parties as a deed:

Executed as a deed by **Australian Energy**)
Market Operator Limited (ACN 072 010)
327) under s 127 of the Corporations Act:)

.....
Signature of Director

.....
Signature of Director/Company Secretary
(Delete title which does not apply)

.....
Print name in full

.....
Print name in full

Executed as a deed by **[insert] ACN**)
[insert] under s 127 of the Corporations)
Act:)

.....
Signature of Director

.....
Signature of Director/Company Secretary
(Delete title which does not apply)

.....
Print name in full

.....
Print name in full

ATTACHMENT B – Table Indicating the Changes to Covert the Rules into the Procedures

The following table summarises all of the changes that are to be made to the Rules to convert them into the Procedures. AEMO will use the Procedures to operate the WA gas retail market upon go-live of the Transition.

Ref	Clause	Current	Change
General Changes			
1	All references to <i>REMCo</i> .		<ul style="list-style-type: none"> Replace with references to <i>AEMO</i>.
2	All <i>References</i> to <i>rule</i> or <i>rules</i> .		<ul style="list-style-type: none"> <i>AEMO</i> is governed under the “National Gas Rules”, so the <i>AEMO</i> equivalent to the <i>REMCo</i> “Retail Market Rules” are called “Retail Market Procedures”. To avoid ongoing confusion, the <i>REMCo</i> Gas Retail Market Rules will be converted into the WA Gas Retail Market Procedures. Therefore, all references to <i>rule</i> or <i>rules</i> will be replaced with references to either <i>procedures</i> or “clause”, as required by context.
3	The Introduction		<ul style="list-style-type: none"> The Introduction is updated to reflect the conversion of the <i>REMCo</i> Scheme into the <i>AEMO</i> Scheme. Wording for the new Introduction is provided in Appendix 1 below.
4		<ul style="list-style-type: none"> Minor issues. 	<ul style="list-style-type: none"> Correct and minor typographic and formatting errors throughout the <i>procedures</i>, including those identified during the Proposed Rule Change consultation stage.
5	Cover page, footers, font, etc.		<ul style="list-style-type: none"> Change to reflect <i>AEMO</i> branding (will not be tracked).
6	Version control		<ul style="list-style-type: none"> Re-set to refer to version 1 (will not be tracked).
7		<ul style="list-style-type: none"> Clause numbering. <div>Note – REMCo and AEMO subsequently determined that</div>	<ul style="list-style-type: none"> Numbering of the Procedures will be readjusted to follow the AEMO numbering convention and to

Ref	Clause	Current	Change
		renumbering the Procedures would create too many potential cross-referencing problems, and so the proposal is to remain with the initial concept to not renumber the Procedures.	remove clauses with no content, and all cross-references will be adjusted accordingly. The changes to the clause numbering has not been made to the version of the Procedures attached to this IIR – the numbering changes will appear in the final version of the Procedures published by AEMO.
Chapter 1 (Interpretation and Administration)			
8	1 – Commencement	<ul style="list-style-type: none"> These <i>rules</i> commenced in <i>Western Australia</i> on the <i>go-live date</i>. 	<ul style="list-style-type: none"> Delete clause 1, as this is a spent provision, and because the definition of go-live date is to be deleted (see ref 14). Also adjust the title to section 1.1.
9	2 – Definition of <i>anticipated annual consumption</i>	<ul style="list-style-type: none"> Referencing error. 	<ul style="list-style-type: none"> The reference is to refer to Appendix 2, with no reference to a specific sub-section of Appendix 2.
10	2 – Definition of <i>business day</i>	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of the term <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> “business day” means for each jurisdiction and for AEMO operating in each jurisdiction, the <i>business hours</i> of a day that is not a Saturday, Sunday or a public holiday in <u>Western Australia</u> the relevant jurisdiction.
11	2 – Definition of <i>close of business</i>	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> “close of business” means 1700 hours in the relevant jurisdiction.
12	2 – Definition of <i>delivery point identifier</i>	<ul style="list-style-type: none"> This definition is not used anywhere in the <i>procedures</i>. The term <i>delivery point identifier</i> shows up in three <i>Specification Pack</i> documents: <ul style="list-style-type: none"> the FRC B2B System Interface Definitions v39; the Interface Control Document v4.5; and the WA Business Specification v4.2. However, the term is defined in those <i>Specification Pack</i> documents, so deletion of the definition from the <i>procedures</i> will not impact the <i>Specification Pack</i>. 	<ul style="list-style-type: none"> Delete the definition of <i>delivery point identifier</i>. This will have no consequences on the <i>procedures</i>.

Ref	Clause	Current	Change
13	2 – Definition of <i>earliest transfer day</i>	<ul style="list-style-type: none"> The <i>rule change committee</i> unanimously endorsed a non-consequential <i>procedure</i> change at its meeting on 16/03/16 (see Rule Change C01/16R). 	<ul style="list-style-type: none"> Insert the following note under the definition of <i>earliest transfer day</i>: <u>{Note: the <i>earliest transfer day</i> for a delivery point with a <i>basic meter</i> must be a <i>business day</i>, unless otherwise agreed by the <i>user</i> and the <i>network operator</i>. The <i>earliest transfer day</i> for a <i>delivery point</i> with an <i>interval meter</i> can be any day.}</u>
14	2 – Definition of <i>go-live date</i>	<ul style="list-style-type: none"> The <i>go-live date</i> is defined as 14 May 2014; and is used in two ways in the <i>procedures</i>: <ul style="list-style-type: none"> It specifies timing for spent provisions: <ul style="list-style-type: none"> clause 1 – see ref 8; clause 11(4) – see ref 32; clause 15(2) – see ref 33; clause 143 – see ref 41; clause 168(2) – see ref 42; clause 218(4) – see ref 44; and clause 308 – see ref 48. It defines timing for some ongoing events: <ul style="list-style-type: none"> clause 362A – see ref 66; and clause 373 – see ref 67. The definition can therefore be deleted, subject to the flow-on changes in the clauses listed above, particularly the two instances where the definition has an ongoing effect. 	<ul style="list-style-type: none"> Delete the definition of <i>go-live date</i>.
15	Definition of <i>jurisdiction</i>	<ul style="list-style-type: none"> The term <i>jurisdiction</i> was necessary when REMCo operated both the WA and SA gas retail markets; and was used when there were differences in how the <i>procedures</i> applied in each <i>jurisdiction</i>. The definition of <i>jurisdiction</i> was changed to mean Western Australia when REMCo handed operation of the SA gas retail market to AEMO in 2009. Usage of the term is clumsy and the <i>procedures</i> can 	<ul style="list-style-type: none"> Delete the definition of <i>jurisdiction</i>.

Ref	Clause	Current	Change
		<p>be simplified by deleting the definition and making the following changes:</p> <ul style="list-style-type: none"> ○ clause 2 – definition of business day – see ref 10; ○ clause 2 – definition of close of business – see ref 11; ○ clause 2 – definition of meter number – see ref 16; ○ clause 2 – definition of start of business – see ref 28; ○ clauses 6A(2)(b) and (c) – see ref 30; ○ clauses 15(3) and (4) – see ref 33; ○ clause 16(3) – see ref 34; ○ clause 19(2) – see ref 35; ○ clause 20(2) – see ref 36; ○ clause 22(1) and (3) – see ref 37; ○ clause 54 – see ref 38; ○ clause 192(3) – see ref 43; ○ clauses 301A(3), (5) and (6) – see ref 47; ○ clause 339 – see ref 62; ○ clause 407 – see ref 79; ○ Appendix 4, clause 16(a) – see ref 83; ○ Appendix 7, clause 20.9 – see ref 86; and ○ Appendix 7, clause 21.9 – see ref 88. 	
16	Definition of <i>prior day</i>	<ul style="list-style-type: none"> • The definition relates to clause 218(4), which has been deleted – see ref 44. 	<ul style="list-style-type: none"> • Delete the definition.
17	Definition of <i>prior day data</i>	<ul style="list-style-type: none"> • The definition relates to clause 281(4), which has been deleted – see ref 44. 	<ul style="list-style-type: none"> • Delete the definition
18	Definition of <i>meter number</i>	<ul style="list-style-type: none"> • Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> • “meter number” means the unique alphanumeric identifier assigned to a meter by the <i>network operator</i> or <i>meter</i> manufacturer within each jurisdiction.

Ref	Clause	Current	Change
19	2 – Definition of “procedures”	<ul style="list-style-type: none"> Insert new definition. 	<ul style="list-style-type: none"> “procedures” means the WA Gas Retail Market Procedures – this document.
20	2 – Definition of <i>recommended rule change</i>	<ul style="list-style-type: none"> This definition needs to be changed to make it consistent with the other changes to Chapter 6. 	<ul style="list-style-type: none"> “recommended procedure change” means an amendment to these procedures, as determined by AEMO under clause 396A, clause 397 or clause 398(5).
21	2 – Definition of <i>REMC</i> <i>o</i>	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i><i>o</i>, insert a definition of <i>AEMO</i>, and reorder the definitions, as appropriate. 	<ul style="list-style-type: none"> “AEMO” has the meaning as set out in the schedule to the National Gas (South Australia) Act 2008 (SA).
22	2 – Definition of <i>REMC</i> <i>o</i> <i>Constitution</i>	<ul style="list-style-type: none"> <i>REMC</i><i>o</i> <i>Members</i> will need to sign the <i>WA Gas Retail Market Agreement</i> to participate in the WA gas retail market, and will not need to become <i>AEMO</i> <i>Members</i> to participate in the WA gas retail market. Therefore, delete the definition of <i>REMC</i><i>o</i> <i>Constitution</i>, and insert a definition of <i>WA Gas Retail Market Agreement</i>, and reorder the definitions. 	<ul style="list-style-type: none"> “WA Gas Retail Market Agreement” means the WA Gas Retail Market Agreement between AEMO and Scheme Participants for the purposes of section 11ZOF(1)(a) of the Energy Coordination Act 1994.
23	2 – Definition of <i>REMC</i> <i>o</i> <i>information system</i>	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i><i>o</i> <i>information system</i>, insert a definition of <i>AEMO information system</i>, and reorder the definitions. 	<ul style="list-style-type: none"> “AEMO information system” means AEMO’s equipment, hardware and software (including the AEMO registry) used to perform AEMO’s obligations under these procedures.
24	2 – Definition of <i>REMC</i> <i>o</i> <i>member</i>	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i><i>o</i> <i>member</i>. <i>Users</i> and <i>Network Operators</i> will not be required to be <i>AEMO</i> <i>Members</i> to participate in the WA gas retail market. Instead they will need to sign the <i>WA Gas Retail Market Agreement</i> (see ref 22). As a result, the references to <i>REMC</i><i>o</i> <i>Members</i> will need to be replaced with “<i>Scheme participant</i>”. This change is critical for Rule 362A (Recovery of <i>AEMO</i>’s costs) to allow <i>AEMO</i> to continue to charge fees to <i>users</i> and the <i>network operator</i>, and will require <i>users</i> and the <i>network operators</i> to pay those fees. 	<ul style="list-style-type: none"> “Scheme participant” has the meaning given to in in section 1.1 of the WA Gas Retail Market Agreement.

Ref	Clause	Current	Change
		This will mirror <i>REMC</i> o's current fee setting powers.	
25	2 – Definition of <i>REMC</i> o Registry	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i>o registry, insert a definition of <i>AEMO</i> registry, and reorder the definitions. 	<ul style="list-style-type: none"> “AEMO registry” means the database <i>maintained by AEMO under clause 19(1), containing at least the AEMO standing data and the information referred to in clause 22(4).</i> {Note: The information referred to in clause 22(1) relates to <i>GBO</i> identifications.}
26	2 – Definition of <i>REMC</i> o Specification Pack	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i>o Specification Pack, insert a definition of <i>AEMO</i> Specification Pack, and reorder the definitions. 	<ul style="list-style-type: none"> “AEMO Specification Pack” means the suite of documents, as approved by <i>AEMO</i>, and the approving body to support the operation of these procedures.
27	2 – Definition of <i>REMC</i> o standing data	<ul style="list-style-type: none"> Delete the definition of <i>REMC</i>o standing data, insert a definition of <i>AEMO</i> standing data, and reorder the definitions. 	<ul style="list-style-type: none"> “AEMO standing data”, in relation to a <i>delivery point</i>, means the information set out in clause 20(1) for the <i>delivery point</i>.
28	2 – Definition of <i>start of business</i>	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> “start of business” means 0800 hours in the relevant jurisdiction.
29	4 – Delegation	<ul style="list-style-type: none"> This clause gives the <i>REMC</i>o Board authority to delegate powers under the <i>rules</i>. The <i>AEMO</i> Board has authority under its Constitution to delegate its powers, including its powers under the <i>procedures</i>, so it does not require clause 4 to empower delegation. 	<ul style="list-style-type: none"> Delete clause 4.
30	6A – Time under these <i>procedures</i>	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete “...in the relevant jurisdiction...” from clause 6A(2)(b) and (c).
31	7A – Administration of the Scheme	<ul style="list-style-type: none"> <i>REMC</i>o's Primary Aim, Guiding Principles and Objectives are currently contained in the <i>REMC</i>o Constitution, which will not have effect after the Transition, so they need to be inserted into the <i>procedures</i>. 	<ul style="list-style-type: none"> The <i>rule change committee</i> developed the following clause 7A to be inserted into the procedures, based on the <i>REMC</i>o Objectives: <u>7A. Administration of the Scheme</u> <u><i>AEMO</i> must, in developing and operating the</u>

Ref	Clause	Current	Change
		<ul style="list-style-type: none"> Legal review suggested inserting the <i>REMC</i> Objectives into the <i>procedures</i> as a new clause 7A. 	<p><u>gas retail market scheme for a distribution system to which the scheme and these <i>procedures</i> relates, act in accordance with the following principles, to the extent practicable:</u></p> <ul style="list-style-type: none"> (a) <u>seek to minimise costs of participating in the Western Australian gas retail market;</u> (b) <u>have regard to the best interests of the Western Australian gas retail market, including <i>participants</i> and <i>customers</i> within the distribution system;</u> (c) <u>seek to ensure that the retail market scheme achieves an appropriate balance between cost and quality of service;</u> (d) <u>promote and facilitate convergence of the Western Australian gas retail market with the other gas and electricity retail markets in Australia;</u> (e) <u>seek to minimise barriers to competition;</u> (f) <u>ensure fair, reasonable, and commercially sustainable cost recovery arrangements;</u> (g) <u>review and enhance market services and arrangements during operation of the retail market scheme, as required;</u> (h) <u>be flexible and responsive to participants;</u> (i) <u>consult with Government on the development and operation of the retail market scheme; and</u> (j) <u>operate in a transparent and accountable manner, subject to protection of commercial confidentiality.</u>
32	11 – Delivery times for notices	<ul style="list-style-type: none"> Clause 11(4) provides for longer delivery times for notices in the first year after the <i>go-live date</i>. 	<ul style="list-style-type: none"> This is a spent provision and can be deleted (see ref 14).

Ref	Clause	Current	Change
33	15 – Identification of sub-networks...	<ul style="list-style-type: none"> Clause 15(2) specifies that “Each <i>sub-network</i> and each <i>gate point</i> as at the <i>go-live date</i> is listed with its identifying code in Appendix 1.” Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words “...that is applicable to the jurisdiction in which the network operator’s GDS resides...” from clause 15(3). Delete the words as at the go-live date in clause 15(4) as the reference to the <i>go-live date</i> is no longer necessary (see ref 14).

Ref	Clause	Current	Change
34	16 – Procedure change process does not apply...	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words “...that are applicable to the jurisdiction in which the network operator’s GDS resides...” from clause 16(3).
Chapter 2 (The Databases)			
35	19 – AEMO registry is deemed to be correct	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words in each jurisdiction from clause 19(2).
36	20 – AEMO standing data	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the note under clause 20(2).
37	22 – GBO identification	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words in each jurisdiction from clause 22(1), and the words in both jurisdictions from clause 22(3).
38	54 – AEMO registry to...	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words in the relevant jurisdiction from clause 54(1).
Chapter 3 (MIRN Transactions)			
39	71 – MIRN must be set out	<ul style="list-style-type: none"> Clause 71 places a requirement on <i>users</i> to provide the <i>MIRN</i> on invoices to <i>customers</i>. However, Division 2 sub reference 4.5 of the Compendium of Gas Customer Licence Obligations also places an obligation on <i>users</i> to provide the <i>MIRN</i> on invoices to <i>small-use customers</i>. This creates an overlap – both the <i>procedures</i> and the Compendium place the same obligation on <i>small-use customers</i>. To avoid this duplication of effort/responsibility between the Economic Regulation Authority and AEMO if a compliance issue ever arises on this matter, the requirement in clause 71 is to be amended to only apply to customers that are not small-use customers. 	<p>Each <i>user</i> must ensure that each invoice it renders to a <i>customer</i> <u>that is not a small-use customer</u> at a <i>delivery point</i> to which the <i>user</i> delivers gas includes the <i>MIRN</i> and <i>MIRN checksum</i> for the <i>delivery point</i>.</p> <p><u>{Note – There is an obligation <i>users</i> to provide the <i>MIRN</i> on invoices to <i>small-use customers</i> in schedule 2 of the Compendium of Gas Customer Licence Obligations, under Division 2 sub reference 4.5.}</u></p>

Ref	Clause	Current	Change
Chapter 4 (Metering)			
40	140 – AEMO to determine ...	<ul style="list-style-type: none"> The second note under clause 140(3) is a transitional provision for go-live of the market. 	<ul style="list-style-type: none"> Delete note.
41	143 – Basic Meters to be read...	<ul style="list-style-type: none"> Clause 143(3) requires the <i>network operator</i> to review its data management systems within 1½ years of the <i>go-live date</i>. 	<ul style="list-style-type: none"> This is a spent provision and can be deleted (see ref 14).
42	168 – Archived historical metering data...	<ul style="list-style-type: none"> Clause 168(2) states “From the <i>go-live date</i>, the <i>network operator</i> must <i>maintain</i> or archive previous <i>meter reading data</i> for each <i>delivery point</i> in its <i>GDS</i> with an <i>interval meter</i> for at least 7 years in a format which is accessible within 5 business days. 	<ul style="list-style-type: none"> Delete the words From the go-live date as reference to the <i>go-live date</i> is no longer necessary (see ref 14).
Chapter 5 (Allocation, Reconciliation and Swing)			
43	192 – If allocation instruction is invalid	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the word jurisdiction's from clause 192(3).
44	218 – the period for calculations	<ul style="list-style-type: none"> Clause 218(4) is a transitional provision to allow market calculations in the first few days after the <i>go-live date</i> (i.e. to allow use of data from prior to the <i>go-live date</i>). 	<ul style="list-style-type: none"> This is a spent provision and can be deleted (see ref 14).
45	171A – Exemption for farm tap sub-networks...	<ul style="list-style-type: none"> This rule refers to the obsolete <i>farm tap</i> terminology. 	<ul style="list-style-type: none"> Delete the reference to <i>farm tap</i> in the heading.
46	281 – Swing service bids	<ul style="list-style-type: none"> A note under this clause indicates that a new rule 281(4)(a)(iii) is to be developed after the <i>go-live date</i>. The new clause is to be to the effect that <i>swing service bids</i> may be expressed either... <ul style="list-style-type: none"> (iii) as part or all (in accordance with this clause 281(4)) of what remains after deducting the <i>user's estimated total withdrawals</i> for the <i>gas day</i> calculated under clause 228 from a fixed 	<ul style="list-style-type: none"> Delete the note.

Ref	Clause	Current	Change
		<p>amount specified by the <i>user</i>".</p> <ul style="list-style-type: none"> The new clause 281(3)(a)(iii) was not developed in the first 12 years of <i>REMC</i>o operations; and the <i>rule change committee</i> has determined that the suggested new clause is still not needed. <i>Scheme participants</i> can seek such an amendment at any time, using the <i>procedure</i> change process in Chapter 9, so the note is not needed. 	
47	301A – Manifest data errors...	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Delete the words in the relevant jurisdiction from clauses 301A(3)(a), 301A(5), and 301A(6); and the words for the relevant jurisdiction from clause 301A(3)(b).
48	308 – Review of Chapter 5	<ul style="list-style-type: none"> Clause 308 required a review of the <i>swing service</i> mechanism at 6 months, 18 months, and 3 years after the <i>go-live date</i>, so this is a spent provision (see ref 14). It is also recognised that there are sufficient other review mechanisms that will cover Chapter 5, including: <ul style="list-style-type: none"> clause 17 requires a review of all of the <i>procedures</i> every 5 years; <i>REMC</i>o undertakes an annual feedback process, and <i>AEMO</i> will continue with this after the Transition; the <i>rule change committee</i> will continue to meet and can raise any issues with Chapter 5 at any time; and <i>AEMO</i> will need to undertake a review of compliance with Chapter 5 once every three years under clause 351. 	<ul style="list-style-type: none"> Delete clause 308. Also deleted the note under clause 17(c) that refers to Rule 308.

Ref	Clause	Current	Change
Chapter 6 (Compliance and Interpretation)			
<p><i>AEMO</i> raised concerns with the role that the <i>AEMO</i> Board would play under Chapter 6 of the <i>procedures</i> if Chapter 6 were transitioned as it stands in v6.9 of the rules. <i>AEMO</i>'s concerns were with the role the <i>AEMO</i> Board would play in:</p> <ul style="list-style-type: none"> making decisions on compliance matters; and appointing the <i>compliance panel</i>. <p><i>REMC</i>o and <i>AEMO</i> developed principles for proposed changes to Chapter 6 to meet <i>AEMO</i>'s requirements and still be acceptable to <i>REMC</i>o and WA gas retail market participants. <i>REMC</i>o consulted with <i>AEMO</i>, the <i>rule change committee</i> (18/05/16), and the <i>REMC</i>o Board (26/05/16); and achieved agreement these principles – see Appendix 2.</p> <p><i>REMC</i>o, <i>AEMO</i>, and the <i>rule change committee</i> developed the Chapter 6 changes based on Appendix 2, with advice from <i>REMC</i>o's lawyers.</p>			
49	309 – <i>AEMO</i> to create <i>compliance panel</i>	<ul style="list-style-type: none"> Clause 309(1) states “<i>AEMO</i> must establish a <i>compliance panel</i> under these <i>procedures</i> by the <i>go-live date</i>.” 	<ul style="list-style-type: none"> Delete “...by the go-live date” as these words are no longer necessary.
50	323A – Annual Meeting		<ul style="list-style-type: none"> A new clause is inserted to require the <i>compliance panel</i> is to meet: <ul style="list-style-type: none"> at least once per year; and more frequently if <i>AEMO</i> or a <i>Scheme participant</i> informs the Chair of the <i>compliance panel</i> in writing that they wish to bring a matter before the <i>compliance panel</i> for discussion. The meetings are to allow the <i>compliance panel</i> to: <ul style="list-style-type: none"> be informed by <i>AEMO</i> of any high-impact <i>procedure</i> changes; confirm any compliance guidelines (see clause 338); and Confirm any delegations of power to <i>AEMO</i> (see clause 343).
51	324 – Powers of the <i>compliance panel</i>		<ul style="list-style-type: none"> Correct clause references to address changes to clause 329 (see ref 55).

Ref	Clause	Current	Change
52	325 – Matters referred to AEMO	<ul style="list-style-type: none"> Clause 325(1) provides that if a <i>participant</i>, <i>pipeline operator</i>, or <i>prescribed person</i> becomes aware of a <i>procedure</i> breach, they may notify AEMO at any time. 	<ul style="list-style-type: none"> Clause (1) is clarified that AEMO is also to provide a notice if it becomes aware of a <i>procedure</i> breach.
53	325A – Suspending the process	<ul style="list-style-type: none"> The compliance process can be suspended if a <i>participant</i> requests a <i>rule</i> interpretation, and the suspension will take effect until: <ul style="list-style-type: none"> (a) REMCo rejects the matter under clause 329(1)(b)(i); or (b) REMCo makes a determination under clause 329(1)(b)(ii); or (c) the <i>compliance panel</i> makes a decision under clause 341(5)(b). 	<ul style="list-style-type: none"> With the changes to clause 329 (see ref 55): <ul style="list-style-type: none"> clauses (a) and (b) are to be deleted from clause 325A(2); and the explanatory note is to be simplified.
54	328 – REMCo to determine its procedures	<ul style="list-style-type: none"> REMCo is to determine its <i>procedures</i> for hearing and determining compliance and interpretation matters – this is the basis for the <i>REMCo (Board) Compliance Procedures</i>. 	<ul style="list-style-type: none"> This clause is to be deleted because the AEMO Board will not have a role in the compliance process.
55	329 – Determinations which may be made	<ul style="list-style-type: none"> This clause currently relates to determinations that can be made by REMCo (interpreted to mean the REMCo Board), but after the Transition, compliance matters are not to be determined by AEMO. Instead, AEMO is to investigate matters and refer them to the <i>compliance panel</i> or to the <i>approving body</i>. The <i>approving body</i> is the Economic Regulation Authority (this will not change). 	<ul style="list-style-type: none"> (a) If the matter relates to a <i>procedure</i> breach by a <i>participant</i> or AEMO, and AEMO <u>has not</u> been delegated authority to make decisions on materiality under clause 343(3) (see ref 63), then AEMO is to refer the matter to the <i>compliance panel</i>. (b) If the matter relates to a <i>procedure</i> breach by a <i>participant</i> or AEMO, and AEMO <u>has</u> been delegated authority to make decisions on materiality under clause 343(3) (see ref 63), then: <ul style="list-style-type: none"> AEMO is to determine whether the matter is material; If the matter <u>is not</u> material, AEMO is to either dismiss the matter or refer it to the <i>compliance panel</i>; If the matter <u>is</u> material, AEMO is to refer the

Ref	Clause	Current	Change
			<p>matter to the <i>compliance panel</i>.</p> <p>(c) If the matter relates to a <i>procedure</i> breach by a <i>pipeline operator</i> or <i>prescribed person</i>:</p> <ul style="list-style-type: none"> ○ if AEMO determines that the matter <u>is not</u> material, AEMO is to either dismiss the matter or refer it to the <i>approving body</i>; ○ if AEMO determines that the matter <u>is</u> material, AEMO is to refer it to the <i>approving body</i>. <p>(d) If the matter relates to an interpretation of the <i>procedures</i>, then AEMO is to refer the matter to the <i>compliance panel</i> along with its preliminary view.</p> <p>The note listing the materiality criteria for <i>procedure</i> breaches are also to apply to AEMO.</p>
56	330 – Notification of Determinations		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 329 (see ref 63).
57	331 – Appeal to the <i>compliance panel</i>		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 329 (see ref 55).
58	332 – Referral of matters to the <i>compliance panel</i>		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 329 (see ref 55).
59	333 – Requirements for referral		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 332 (see ref 58).
60	336 – Proceedings		<ul style="list-style-type: none"> • Correct clause references to address the changes to clause 329 (see ref 55).
61	338 – <i>compliance panel</i> to determine its own <i>procedures</i>	<ul style="list-style-type: none"> • The <i>compliance panel</i> is to determine its own <i>procedures</i> for holding hearings. 	<ul style="list-style-type: none"> • With the name change from <i>rules</i> to <i>procedures</i>, the term <i>procedures</i> in this clause are changed to guidelines.

Ref	Clause	Current	Change
62	339 – Where hearings may be held	<ul style="list-style-type: none">Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15).	<ul style="list-style-type: none">Amend clause 340 as follows: <i>Compliance panel hearings must be held in Western Australia</i> may be held in either jurisdiction or both as determined under clause 339(1).
63	343 – Determinations which may be made	<ul style="list-style-type: none">This clause specifies the determinations that the <i>compliance panel</i> may make, including interim determinations.	<ul style="list-style-type: none">The <i>compliance panel</i> is to have an additional power to determine that a breach is not material and to take no further action (this was previously a power of <i>REMC</i>o).The <i>compliance panel</i> is to have the authority to delegate to <i>AEMO</i> its power to assess whether a breach is material or not material under c, 329 (see ref 55).If the <i>compliance panel</i> makes this delegation, then the <i>compliance panel</i> only has authority to make a further determination if <i>AEMO</i> determines that the matter is material.
Chapter 7 (Reporting and Audits)			
64	No changes other than those listed under General Changes.		
Chapter 8 (Administration)			
65	362A – Recovery of <i>AEMO</i> 's costs	<ul style="list-style-type: none"><i>AEMO</i> can charge a lower <i>registration fee</i> (i.e. the joining fee) and <i>service fee</i> (i.e. the annual fee) to small <i>users</i> in other jurisdictions in accordance with its “reflective involvement principle”. This appears in the <i>procedures</i> in the other jurisdictions.Clause 362A deals with recovery of costs and fee setting; and indicates that the <i>registration fee</i> and <i>service fee</i> should not be a barrier to entry, and should provide efficient price signals.However, clause 362A does not explicitly allow <i>AEMO</i> to charge a lower <i>registration fee</i> or <i>annual fee</i> to	<ul style="list-style-type: none">The following changes are proposed to Rule 362A:<ul style="list-style-type: none">(a) in recovery of its costs, the charges imposed by <i>AEMO</i> <u>on Scheme participants</u> <i>REMC</i>o on users, who are <i>REMC</i>o members, shall not be such as to create a material barrier to entry for new entrants, <u>small users, or self-contracting users</u>;...(f) <i>AEMO</i> is to have discretion to charge a lower <i>registration fee</i> and <i>service fee</i> for small <i>users</i> and <i>self contracting users</i>;(g) <i>AEMO</i>'s discretion under this clause 362A is to

Ref	Clause	Current	Change
		<p>smaller <i>users</i> or self-contracting users; so clause 362A is to be changed to make this explicit.</p> <ul style="list-style-type: none"> This discretion for <i>AEMO</i> is to include determining which <i>users</i> the lower fees are to apply to, and how much lower the fee should be. 	<p><u>include determining the definition of a small <i>user</i>, and how much lower the fees for small <i>users</i> and self contracting users should be in comparison to other <i>Scheme participants</i>.</u></p> <p>...</p> <p><u>{Note: In exercising this discretion under clause 362A, <i>AEMO</i> is to consider the principles listed in clause 7A. <i>AEMO</i> can define a small user by reference to the number of customers, quantity of gas transported, or any other characteristic.}</u></p>
66	362A – Charging and payment of fees	<ul style="list-style-type: none"> Clause 362A(6) specifies what is to occur if the fee escalation index changes substantially from what was published at the <i>go-live date</i>. 	<ul style="list-style-type: none"> Change the reference to <i>go-live date</i> into <u>2004</u> (see ref 14).
67	373 – Small use customer and small use customer indicator determination	<ul style="list-style-type: none"> Clause 373(6) specifies timing for <i>AEMO</i> to conduct the <i>small use customer</i> determination process, with reference to the <i>go-live date</i>. This clause is to refer to the <u>month</u> of the <i>go-live date</i> so that deleting the <i>go-live date</i> definition does not impact process timing. 	<ul style="list-style-type: none"> Change the text as follows “...end of each six month period <u>from May each year</u>, with the first six month period commencing on the go-live date, <i>AEMO</i> must determine...” – see ref 14.
Chapter 9 (Procedure Change Process)			
<p><i>AEMO</i> raised concerns with the following elements of the Chapter 9 <i>procedure</i> change process if Chapter 9 were transitioned as it stands in v6.9 of the <i>rules</i>:</p> <ul style="list-style-type: none"> the types of decisions that the <i>AEMO</i> Board would need to make on <i>procedure</i> changes (if any); and whether the <i>rule change committee</i> should be a decision-making (i.e. voting) body or a consultative body. <p><i>REMC</i>o and <i>AEMO</i> have developed principles for changes to the Chapter 9 <i>procedure</i> change process to meet the requirements of <i>AEMO</i> and still be acceptable to <i>REMC</i>o and WA gas retail market participants. <i>REMC</i>o consulted with <i>AEMO</i>, the <i>rule change committee</i> (18/05/16), and the <i>REMC</i>o Board (26/05/16); and achieved agreement on these principles – see Appendix 3.</p> <p><i>REMC</i>o, <i>AEMO</i>, and the <i>rule change committee</i> developed the Chapter 9 changes reflect Appendix 3, with advice from <i>REMC</i>o’s lawyers.</p>			
67A	Part 9.1 – Introduction	<ul style="list-style-type: none"> Prompt to review guideline if chapter 9 changes are made. 	<ul style="list-style-type: none"> Add new note under Part 9.1 introduction

Ref	Clause	Current	Change
68	392 – Appeal to <i>AEMO</i>	<ul style="list-style-type: none"> A proponent for a <i>procedure</i> change may appeal a decision by <i>AEMO</i> under clause 391 (to accept or reject a proposed change). 	<ul style="list-style-type: none"> The requirements for what must be submitted to <i>AEMO</i> to appeal a decision is simplified by deleting clauses (a) and (b), as <i>AEMO</i> will already have the information required by these clauses.
69	394 – Initial assessment by <i>procedure change committee</i>	<p>(2) The <i>rule change committee</i> must:</p> <p>(a) reject a proposed change if it meets certain criteria; and</p> <p>(b) send a notice regarding the rejection.</p> <p>...</p> <p>(4) The <i>rule change committee</i> must accept a proposed change if it is not rejected under (2).</p>	<p>(2) The <i>procedure change committee</i> must:</p> <p>(a) recommend to <i>AEMO</i> to reject a proposed change (no change to the criteria for making this decision); and</p> <p>(b) delete this clause.</p> <p>...</p> <p>(4) The <i>procedure change committee</i> must recommend to <i>AEMO</i> to accept a proposed change if it does not recommend to reject the change under (2).</p> <p>(5) <i>AEMO</i> must make its decision under (2)(a) or (4) within 20 business days.</p> <p>(6) <i>AEMO</i> must notify the proponent of its decision under (5) within 5 business days.</p>
70	395 – Appeal to <i>AEMO</i>	<ul style="list-style-type: none"> <i>AEMO</i> to hear appeal of decisions on rejection under clause 394. 	<ul style="list-style-type: none"> The requirements for what information must be submitted to <i>AEMO</i> to appeal a decision is simplified by deleting clauses (1)(a) and (b), as <i>AEMO</i> will already have the required information. Language in clause (2) and (3) are cleaned up to reflect the change of the role for the <i>procedure change committee</i>. Clause (4) is simplified to reflect who must be notified of appeal decisions.
71	396 – If the <i>rule change committee</i> accepts a change request	<ul style="list-style-type: none"> If the <i>rule change committee</i> accepts a <i>proposed change</i>, it must determine whether the change is non-consequential or low impact, based on a defined set of criteria. 	<ul style="list-style-type: none"> The <i>procedure change committee</i> is to make a recommendation to <i>AEMO</i> on whether the proposed change is non-consequential or low impact; and <i>AEMO</i> is to make the decision (no change to the criteria for the decision).

Ref	Clause	Current	Change
			<ul style="list-style-type: none"> New sub-clauses are inserted on timing for <i>procedure change committee</i> delivering its recommendation, and for <i>AEMO</i> making its decision.

Ref	Clause	Current	Change
72	396A – Non-substantial changes	<ul style="list-style-type: none"> The <i>rule change committee</i> is to decide whether to submit any non-substantial change proposals to the <i>approving body</i>. 	<ul style="list-style-type: none"> <i>AEMO</i> is to decide whether to submit any non-substantial change proposals to the <i>approving body</i>.
73	397 – Low-impact changes	<ul style="list-style-type: none"> The <i>rule change committee</i> is to develop an Impact and Implementation Report (“IIR”) on any low-impact change proposals. 	<ul style="list-style-type: none"> <i>AEMO</i> is to develop an IIR on any low-impact change proposals.
74	398 – High-impact changes	<ul style="list-style-type: none"> High-impact changes are any proposed change that is not non-substantial or low-impact. The <i>rule change committee</i> is to develop an IIR on any high-impact change proposal. The <i>rule change committee</i> must run a 10-day consultation process on the proposed change, and make a decision on whether to proceed with the change. The <i>procedure change committee</i> is to meet to consider any submissions on high-impact proposed changes and determine whether to proceed with the change. 	<ul style="list-style-type: none"> <i>AEMO</i> is to take the role of the <i>rule change committee</i>.
75	399 – Consideration of recommended changes	<ul style="list-style-type: none"> If <i>REMC</i> receives a <i>procedure</i> change (non-substantial under clause 396A, low-impact under clause 397, or high-impact under clause 398), it must decide whether to endorse or reject the proposed change, and must notify the proponent of the rejection. If the recommended change relates to clause 362A (fee setting) <i>REMC</i> must not endorse the change unless 80% of the <i>REMC</i> Board support the recommendation. 	<ul style="list-style-type: none"> <i>AEMO</i> takes the role of <i>REMC</i>. If the recommended change relates to clause 362A (fee setting), the <i>AEMO</i> Board must not endorse the proposed change unless 80% of the <i>AEMO</i> Board supports the recommendation (this will be the only decision that must be made by the <i>AEMO</i> Board – the other decisions can be delegated).
76	399A – <i>REMC</i> endorses low-impact changes	<ul style="list-style-type: none"> If <i>REMC</i> endorses a low-impact proposed change, it must conduct a 10-day consultation process. <ul style="list-style-type: none"> If no objections are received, <i>REMC</i> must decide whether to apply to the <i>approving body</i> for the 	<ul style="list-style-type: none"> <i>AEMO</i> takes the role of <i>REMC</i>. A new clause 399A(6) specifies the requirement on <i>AEMO</i> to make a determination after receiving a recommendation from the <i>procedure change</i>

Ref	Clause	Current	Change
		<p>change.</p> <ul style="list-style-type: none"> ○ If an objection specifies that the proposed change is high-impact, then the <i>rule</i> change must be subject to the high-impact <i>rule</i> change process under clauses 398 and 399. ○ If an objection specifies that the proposed change is non-substantial or low impact, <i>REMC</i>o must provide the objection to the <i>rule change committee</i>. The <i>rule change committee</i> must decide whether to recommend to <i>REMC</i>o to: <ul style="list-style-type: none"> ▪ apply to the <i>approving body</i> for the proposed change; ▪ abandon the proposed change; or ▪ recommend an alternative change. • Notification requirements are specified. 	<p><i>committee</i>.</p>
77	400 – <i>REMC</i> o endorsed high-impact change	<ul style="list-style-type: none"> • If <i>REMC</i>o endorses a high-impact proposed change, it must conduct a specified consultation process (this is a second consultation process after the first process under clause 398). • If no objections are received, then the <i>rule change committee</i> must recommend to <i>REMC</i>o to submit the high-impact change proposal to the <i>approving body</i>, and <i>REMC</i>o is to make the submission to the <i>approving body</i>. • If objections are received, then the <i>rule change committee</i> is to make a recommendation to <i>REMC</i>o to: <ul style="list-style-type: none"> ○ apply to the <i>approving body</i> for the proposed change despite the objections; or ○ amend the proposed change to address the objection and, if the amendment is material, clause 397 applies to the amended change. 	<ul style="list-style-type: none"> • <i>AEMO</i> is to take the role of <i>REMC</i>o. • A new clause 400(5) specifies the requirement on <i>AEMO</i> to make a determination after receiving a recommendation from the <i>procedure change committee</i>.

Ref	Clause	Current	Change
78	400A – Submission for approval	<ul style="list-style-type: none"> • <i>REMC</i>o is to determine its processes to consider a report under clause 396A or 400, and is to decide whether to <ul style="list-style-type: none"> ○ apply to the <i>approving body</i> for the proposed change; ○ amend the proposed change and consult again; or ○ abandon the proposed change. • <i>REMC</i>o must notify market participants of its decision. 	<ul style="list-style-type: none"> • <i>AEMO</i> is to determine its processes to consider a report under clause 396A or 400, and is to decide whether to <ul style="list-style-type: none"> ○ apply to the <i>approving body</i> for the proposed change; ○ amend the proposed change and consult again; or ○ abandon the proposed change. • <i>AEMO</i> must notify market participants of its decision. • If <i>AEMO</i> decides to apply to the <i>approving body</i> for a proposed change, and subject to any requirements from the <i>approving body</i>, <i>AEMO</i> must provide market participants with: <ul style="list-style-type: none"> ○ a copy of the application to the <i>approving body</i>; and ○ instructions on how to make a submission to the <i>approving body</i> regarding the application (within a 10 business day window).
Chapter 10 (General Provisions)			
79	407 – Severability	<ul style="list-style-type: none"> • Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> • Delete the words “...or the validity of that procedure in any other jurisdiction.”
Appendix 1 (Coding of Gas Zones and Gate Points)			
80			<ul style="list-style-type: none"> • Delete the superfluous “Western Australia” heading on page 1 of the appendix. • Delete the superfluous reference to Appendix 1.2 on the last page of the appendix.

Ref	Clause	Current	Change
Appendix 2 (Estimation and Verification Methodology)			
81			<ul style="list-style-type: none">Delete the superfluous “Western Australia” heading on page 1 of the appendix.Delete the text “There is no Sub-Appendix 2.2” on the last page of the appendix.
Appendix 3 (Calculation of the MIRN checksum)			
82	No changes other than those listed under General Changes.		
Appendix 4 (Auditor’s deed of undertaking)			
83	16 – Definitions	<ul style="list-style-type: none">Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15).	<ul style="list-style-type: none">Delete the words “...as approved by the relevant jurisdiction...” from the definition of Retail Market Procedures in clause 16(a).
Appendix 5 (Calculations, Rounding and Units)			
84	No changes other than those listed under General Changes.		
Appendix 6 (Requirements for Explicit informed consent)			
85		<ul style="list-style-type: none">Appendix 6 specifies the requirements for explicit informed consent, including that <i>small use customers</i> can provide <i>explicit informed consent</i> verbally or in writing, whereas large customers may only provide <i>explicit informed consent</i> in writing.The <i>rule change committee</i> unanimously endorsed a high-impact <i>procedure</i> change at its meeting on 29/06/16 (see Rule Change C03/16R).	<p>Requirements for explicit informed consent</p> <p>A <i>customer’s</i> consent will be <i>explicit informed consent</i> if the consent is given:</p> <ul style="list-style-type: none">(a) expressly; and(b) subject to clause 0,<u>orally or</u> in writing; and(c) after the <i>user</i> has in plain language appropriate to that <i>customer</i> disclosed all matters materially relevant to the giving of the consent, including each specific purpose for which the consent will be used; and(d) by a person competent <u>or authorised</u> to give it on the <i>customer’s</i> behalf.

Ref	Clause	Current	Change
			<p>Small use customer's consent may be given orally A small use customer's explicit informed consent may be given orally.</p> <p>Records of explicit informed consent A user must:</p> <p>(e) create a record of each <i>explicit informed consent</i> received.</p> <p>(f) <i>maintain</i> the record for a period of at least 2 years from the date of the <i>explicit informed consent</i>.</p> <p>(g) provide a copy of the record to REMCo within 10 <i>business days</i> after REMCo requests it.</p> <p>A record under clause 0(e) must:</p> <p>(h) be in a form capable of examination by REMCo <u>AEMO</u> under rule 72(5)<u>clause 72</u> and of audit under rule 350;</p> <p>(i) include such information as enables REMCo <u>AEMO</u> or the auditor to verify the <i>user's</i> compliance with rules <u>clauses</u> 55A, 72(1), 72(4), 79(1), 79(4), 166A and 349 and this Appendix 6.</p>
Appendix 7 (Swing Service Umbrella Deed [SSUPD])			
86	20.9 – Severability	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Amend the clause as follows: Any provision of this agreement which is invalid in any jurisdiction is invalid in that jurisdiction to that extent, without invalidating or affecting the remaining provisions of this agreement or the validity of that provision in any other jurisdiction.
Appendix 8 (Terms and Conditions for Swing Service Provider of Last Resort)			
87	No changes other than those listed under General Changes.		

Ref	Clause	Current	Change
Appendix 9 (Fallback User-Shipper Agreement)			
88	20.9 – Severability	<ul style="list-style-type: none"> Update to reflect the deletion of the definition of <i>jurisdiction</i> (see ref 15). 	<ul style="list-style-type: none"> Amend the clause as follows: Any provision of this deed which is invalid in any jurisdiction is invalid in that jurisdiction to that extent, without invalidating or affecting the remaining provisions of this deed or the validity of that provision in any other jurisdiction.
Appendix 10 (Swing Service Causation Compensation Terms)			
89		<ul style="list-style-type: none"> 	<ul style="list-style-type: none">
Appendix 11 (There is no Appendix 11)			
90		<ul style="list-style-type: none"> Appendix 11 related to South Australian market operations and is no longer use. 	<ul style="list-style-type: none"> Delete Appendix 11 – this will have no impact on numbering in the rest of the <i>procedures</i>
Appendix 12 (There is no Appendix 12)			
91		<ul style="list-style-type: none"> Appendix 12 related to South Australian market operations and is no longer use. 	<ul style="list-style-type: none"> Delete Appendix 12 – this will have no impact on numbering in the rest of the <i>procedures</i>

INTRODUCTION

PURPOSE

In 2003, the Western Australian Government amended the *Energy Coordination Act 1994* (WA) to implement full retail contestability in the State's gas retail markets.

Retail Energy Market Company Limited ("REMCo") was established by WA gas retail market participants in 2004 to develop and operate cost efficient and effective retail market arrangements to facilitate gas retail competition in Western Australia and South Australia. However, on 1 October 2009, *REMCo* transferred responsibility for operation of the South Australian gas retail markets to the *Australian Energy Market Operator* ("AEMO").

The remaining *REMCo* Members subsequently agreed to transfer the WA gas retail market operation to *AEMO* on 31 October 2016.

The purpose of these WA Gas Retail Market *procedures* (the "*procedures*") is to govern the interactions between *participants*, *pipeline operators*, *prescribed persons* and *AEMO* in the Western Australian gas retail market.

STATUS

The Gas Retail Market Scheme

Under section 11ZOB of the *Energy Coordination Act 1994* (WA), the purpose of a retail market scheme for a distribution system is to ensure that the retail gas market supplied through that system is regulated and operates in a manner that is open, competitive, efficient and fair to gas market participants and their customers.

Each retail market scheme must have a formal entity to administer the scheme and *AEMO* has been appointed as the formal entity for the WA gas retail market.

The *WA Gas Retail Market Agreement* operates as a contract between *Scheme participants* (under section 11ZOF of the *Energy Coordination Act 1994*), and requires *AEMO* and the *Scheme participants* to comply with these *procedures*. As a result, these *procedures* are a contractual term of the *WA Gas Retail Market Agreement*; so *Scheme participants* or *AEMO* may bring an action to enforce the terms of the *WA Gas Retail Market Agreement* (including a provision of these *procedures*) against the other *Scheme participants* or against *AEMO* itself.

Regulatory status

Under section 11ZOC of the *Energy Coordination Act 1994* (WA), where there is more than one gas distribution operator or retail gas operator on a gas distribution system, each gas distribution operator and retail gas operator must be bound by agreement to comply with the relevant provisions of an "approved retail market scheme" for that distribution system.

The *WA Gas Retail Market Agreement* is the agreement between gas distribution operators and retail gas operators for the *AEMO* scheme for the WA gas retail market, and requires *AEMO* and the *Scheme participants* to comply with these *procedures*.

Appendix 1 – Proposed New Introduction to the *procedures*

In addition, gas transmission operators and persons prescribed under regulations must comply with the relevant provisions of the “retail market rules” made as part of an approved retail market scheme for a distribution system. These *procedures* are the “retail market rules” made as part of the approved retail market scheme.

The Western Australian Minister for Energy approved the *REMC*o Scheme under section 44 of the *Energy Legislation Amendment Act 2003* (WA) in 2004; and in 2016, the *Economic Regulation Authority* approved amendments to the *REMC*o Scheme under section 11ZOM of the *Energy Coordination Act 1994* (WA) to amend the *REMC*o scheme into the *AEMO* Scheme. The elements of the *AEMO* scheme are the *WA Gas Retail Market Agreement*, these *procedures*, the *AEMO Specification Pack*, and the *FRC Hub Operational Terms and Conditions*.

Amendments to the *AEMO* Scheme must be submitted to the *Economic Regulation Authority* under section 11ZOL of the *Energy Coordination Act 1994* (WA), for approval under section 11ZOM of the *Energy Coordination Act 1994* (WA).

OTHER RELEVANT DOCUMENTS

These *procedures* are one element of the retail market arrangements that *AEMO* operates for the Western Australian gas market. These *procedures* should be read in conjunction with:

- the following documents that relate to the operation of the WA gas retail market and the related Gas Retail Market System; and the manner in which *participants*, *pipeline operators*, *prescribed persons* and *AEMO* interact in the gas markets:
 - the *WA Gas Retail Market Agreement*;
 - the *AEMO Specification Pack*;
 - the User Guidelines for the *AEMO Specification Pack*; and
 - the *FRC Hub Operational Terms and Conditions*; and
- all applicable *laws*.

Appendix 2 – Principles for the Proposed Changes to Chapter 6

The process to deal with compliance for the *procedures* is to be amended so that:

- (1) All references to *REMC*o will be changed into *AEMO*, and all references to *rules* will be changed into *procedures* or clause, as required by context.
- (2) All decisions on alleged breaches and rule interpretations are to be made by the *compliance panel*.
- (3) The *compliance panel* may delegate power to *AEMO* make determinations as to whether a matter was material or not material.
- (4) The *compliance panel* must meet at least once per year to:
 - be informed by *AEMO* of any high-impact *procedure* changes;
 - confirm any compliance guidelines; and
 - confirm any delegations of power to *AEMO*.

Other aspects of the *procedure* compliance process will remain unchanged – it will continue have heads of power under the *Energy Coordination Act 1994* (the “Act”), which specifies that the *procedures* are to provide for the:

- resolution of disputes and questions that may arise (section 11ZOG(2)(f) of the Act);
- monitoring compliance with the *procedures* (section 11ZOG(2)(h) of the Act); and
- enforcement of the *procedures*, including by imposition of penalties (section 11ZOG(2)(i) of the Act).

Chapter 6 of the *procedures* are currently interpreted so that *REMC*o means:

- *REMC*o staff (the CEO or operational staff contracted from *AEMO*) when they address an operational aspect of the compliance process (e.g. clause 318, which requires *REMC*o to provide administrative assistance to the *compliance panel*); and
- the *REMC*o Board when they indicate that a decision is to be made (e.g. clause 4329 which indicates the determinations that the *REMC*o Board can make), noting that in some cases the *REMC*o Board has delegated its decisions to the *REMC*o CEO.

Once *rules* are converted into the *procedures*, it will be up to *AEMO* to determine the appropriate person within *AEMO* that is to perform the specified tasks or make the specified decisions, which may be different from *REMC*o’s current practice. *AEMO*’s delegation authority is provided for in its *Constitution*.

The following two subsidiary documents to Chapter 6 of the *rules*: will be reviewed and updated prior to go-live of the Transition.

- The “*REMC*o (Board) Compliance Procedures”, which will be deleted given that the *AEMO* Board will not have a role in determining compliance matters; and
- the “Recommended *REMC*o Compliance Panel Procedures”, which will be converted into the “Compliance Panel Guidelines”, and will be given to the *compliance panel* for consideration and approval.

Appendix 3 – Principles for the Proposed Changes to Chapter 9

The process to change the *procedures* is to be amended so that:

- (1) All references to *REMC*o will be changed into *AEMO*, and references to *rules* will be changed into *procedures* or clause, as required by context.
- (2) *AEMO* must consult with the *procedure change committee* on proposed changes to the *AEMO* Scheme and *AEMO* will consider *procedure change committee* recommendations, but *AEMO* is to make all decisions under the process, including whether to apply to the *approving body* (the Economic Regulation Authority) for approval of Scheme changes. That is, the *procedure change committee* will not be a decision-making body.
- (3) *AEMO* must publish all applications to the *approving body* for Scheme changes, and *Scheme participants* are to have the ability to make a submission to the *approving body* for its consideration in approving a Scheme change.

Other aspects of the Scheme change process will remain unchanged – it will continue have heads of power under the *Energy Coordination Act 1994* (the “Act”) including:

- the Economic Regulation Authority is to have authority to approve Scheme changes under section 11ZOM of the Act;
- the criteria for the Economic Regulation Authority to consider in approving Scheme changes are laid out in sections 11ZOO, 11ZOP, and 11ZOB of the Act;
- *AEMO* and market participants may apply to the Economic Regulation Authority for a Scheme change under section 11ZOL of the Act; and
- the *procedures* are to contain the process for the *AEMO* is to use to develop Scheme changes for application to the Economic Regulation Authority, as per section 11ZOG(2)(h) of the Act.

Chapter 9 of the *procedures* are currently interpreted so that *REMC*o means:

- *REMC*o staff (usually the *REMC*o CEO) for operational aspects of the *procedure* change process – e.g. clause 388(4), which requires *REMC*o to make *rule change committee* minutes available within 7 days; and
- the *REMC*o Board for decisions – e.g. clause 400A, which requires *REMC*o to submit Scheme changes to the *approving body* for approval, noting that the *REMC*o Board has delegated some decisions to the *REMC*o CEO.

Once the *rules* are converted into the *procedures*, it will be up to *AEMO* to determine the appropriate person within *AEMO* that is to perform each specified task or make each specified decision, which may be different from *REMC*o’s current practices. *AEMO*’s delegation authority is provided in its Constitution.

The following four subsidiary documents to Chapter 9 of the *rules* will be reviewed and updated prior to the Transition:

- the “Rule Change Procedures”, which will be converted into “Guidelines”;
- the “Rule Change Committee Charter”, which will be changed into the “Procedure Change Committee Charter”;
- the “Technical Working Group Charter” and
- the “BLAST Charter” will be deleted, as the *rule change committee* has terminated this sub-committee.

ATTACHMENT C – Table Indicating the Changes to the Specification Pack

The following table summarises all of the changes that are to be made to the Specification Pack to enable the Transition. AEMO will use the updated Specification Pack to operate the WA gas retail market upon go-live of the Transition.

Ref	Clause	Current	Change
Specification Pack Usage Guideline			
92	Front cover		<ul style="list-style-type: none"> Delete the <i>REMCo</i> logo.
93	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. (a) Several terms have been changed to a general term where possible with a market specific definition; and... This approach is to promote interchange-ability in these documents for the benefit of stakeholders from... 	<ul style="list-style-type: none"> Delete the entire section.
94	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
95	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
96	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
97	2.0		<ul style="list-style-type: none"> All the document version numbers are to be updated.

Ref	Clause	Current	Change
Interface Control Document			
98	Covering page	<ul style="list-style-type: none"> Update the listed client: 	<ul style="list-style-type: none"> Client: Retail Energy Market Company Limited (REMCo) and Australian Energy Market Operator Limited (AEMO).
99	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. <ul style="list-style-type: none"> (a) Several terms have been changed to a general term where possible with a market specific definition; and... This approach is to promote interchange-ability in these documents for the benefit of stakeholders from... 	<ul style="list-style-type: none"> Delete the entire section.
100	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
101	The term <i>relevant Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
102	The term <i>rules</i>	<ul style="list-style-type: none"> The term <i>rules</i> is used. 	<ul style="list-style-type: none"> Replace with <i>Procedures</i>.
FRC B2B System Interface Definitions			
103	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
104	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail 	<ul style="list-style-type: none"> Delete the entire section.

Ref	Clause	Current	Change
		<p>markets in place since 1 October 2009. The reader needs to be aware of the following changes.</p> <p>(a) Several terms have been changed to a general term where possible with a market specific definition; and...</p> <p>This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...</p>	
105	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
106	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
107	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
108		<ul style="list-style-type: none"> Appendix D, section 9.1 specifies the LVI, but does not require provision of the LVI. 	<ul style="list-style-type: none"> Insert the following text at the beginning of section 9.1 in Appendix D: AEMO will make available the following low-volume interface service for Users that have a market share of no more than 500 MIRNs.
FRC B2M-B2B Hub System Specification			
109	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
110	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. 	<ul style="list-style-type: none"> Delete the entire section.

Ref	Clause	Current	Change
		<p>(a) Several terms have been changed to a general term where possible with a market specific definition; and...</p> <p>This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...</p>	
111	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
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113	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
FRC B2M-B2B Hub System Architecture			
114	Front cover		<ul style="list-style-type: none"> Delete the <i>REMCo</i> logo
115	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. <p>(a) Several terms have been changed to a general term where possible with a market specific definition; and...</p> <p>This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...</p> 	<ul style="list-style-type: none"> Delete the entire section.

Ref	Clause	Current	Change
116	The term - <i>Specification Pack</i>	<ul style="list-style-type: none"> The term <i>Specification Pack</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>AEMO Specification Pack</i> as the term is used in the <i>procedures</i> (the WA Gas Retail Market Procedures). This and aligns the terminology in the <i>procedures</i> for WA and SA.
117	The term <i>Gas Retail Market Rules</i>	<ul style="list-style-type: none"> The term <i>Gas Retail Market Rules</i> is used throughout the document. 	<ul style="list-style-type: none"> Replace with <i>Retail Market Procedures</i>.
118	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
119	Section 1.4 , Definitions and Acronyms		<ul style="list-style-type: none"> Add the acronym <i>AEMO</i>.
120	Section 1.4 , Definitions and Acronyms	<ul style="list-style-type: none"> Amend the definition of the acronym SAWA. 	<ul style="list-style-type: none"> SAWA – South Australia / Western Australia – two separate jurisdictions for the GRMS, each with its own Market Operator.
FRC CSV Data Format Specification			
121	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
122	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. <ul style="list-style-type: none"> (a) Several terms have been changed to a general term where possible with a market specific definition; and... 	<ul style="list-style-type: none"> Delete the entire section.

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Connectivity Testing and Technical Certification			
126	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
127	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. <ul style="list-style-type: none"> (a) Several terms have been changed to a general term where possible with a market specific definition; and... <p>This approach is to promote interchange-ability in these documents for the benefit of stakeholders from...</p>	<ul style="list-style-type: none"> Delete the entire section.
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130	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>relevant Market Operator</i> is used. 	<ul style="list-style-type: none"> Replace with <i>AEMO</i>.
131	Section 4		<ul style="list-style-type: none"> Replace WA contact details with AEMO contact details
Readiness Criteria			
132	Front cover		<ul style="list-style-type: none"> Delete the <i>REMC</i>o logo
133	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. (a) Several terms have been changed to a general term where possible with a market specific definition; and... This approach is to promote interchange-ability in these documents for the benefit of stakeholders from... 	<ul style="list-style-type: none"> Delete the entire section.
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Ref	Clause	Current	Change
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137	The term <i>Market Operator</i>	<ul style="list-style-type: none"> The term <i>rule</i> is used. 	<ul style="list-style-type: none"> Replace with <i>clause</i>.
138	Section 2	<ul style="list-style-type: none"> Market participants do not need to become <i>AEMO members</i> to participate in the WA gas retail market, they just need to execute the <i>WA Gas Retail Market Agreement</i>. The prerequisites for testing listed in section 2 need to be updated accordingly. 	<ul style="list-style-type: none"> Readiness Criteria for New Participants ... For WA, new entrants must become members of REMCo parties to the Western Australian Gas Retail Market Agreement (being the agreement between gas market participants for the purposes of section 11ZOF of the Energy Coordination Act 1994 (WA)) prior to participating in the Readiness Testing Process. For SA, no such requirement exists.
B2B Service Order Specifications, Part 1			
139	Front cover		<ul style="list-style-type: none"> Delete the <i>REMCo</i> logo
140	Preamble	<ul style="list-style-type: none"> This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes. (a) Several terms have been changed to a general term where possible with a market specific definition; and... This approach is to promote interchange-ability in these documents for the benefit of stakeholders from... 	<ul style="list-style-type: none"> Delete the entire section.
141	The term <i>REMCo</i>		<ul style="list-style-type: none"> Replace with <i>AEMO</i>

Ref	Clause	Current	Change
B2B Service Order Specifications, Part 2			
No changes required			

ATTACHMENT D – Table Indicating the Changes to the Hub T&Cs

The following table summarises all of the changes that are to be made to the Hub T&Cs to enable the Transition. AEMO will use the updated Hub T&Cs to operate the WA gas retail market upon go-live of the Transition.

Ref	Clause	Current	Change
General Changes			
FRC HUB T&Cs.			
142	Section 1	<ul style="list-style-type: none"> Section 1 makes reference to the <i>Retail Market Procedures</i> in all jurisdictions, and to the <i>Retail Market Rules</i> in Western Australia. The distinction for Western Australia can be deleted with the Retail Market Rules also being renamed as Retail Market Procedures. 	<ul style="list-style-type: none"> If there is any inconsistency between this document and the jurisdictional Retail Market Procedures (as applicable) and the Retail Market Rules in Western Australia, the Retail Market Procedures and Retail Market Rules will prevail to the extent of that inconsistency. <p>Words and phrases in this document which appear in italics have the meaning given to them under the jurisdictional Retail Market Procedures (as applicable) and under the Retail Market Rules in Western Australia unless an intention to the contrary appears</p>
143	Section 2 – Definitions	<ul style="list-style-type: none"> Section 2 makes reference to the <i>Retail Market Procedures</i> in all jurisdictions, and to the <i>Retail Market Rules</i> in Western Australia. The distinction for Western Australia can be deleted with the Retail Market Rules also being renamed as Retail Market Procedures. 	<ul style="list-style-type: none"> FRC HUB means the information system provided by AEMO for the transmission of aseXML messages under the jurisdictional Retail Market Procedures and the Retail Market Rules in Western Australia

WA Gas Retail Market Agreement

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WA Gas Retail Market Agreement

Date: 2016

Parties

Australian Energy Market Operator Level 22, 530 Collins Street, Melbourne, Victoria 3000

AEMO

and

The Parties listed in Schedule 1.

Recitals

- A. AEMO's functions include operating the National Electricity Market; gas retail markets in Victoria, New South Wales, Australian Capital Territory, South Australia and Queensland; the Short Term Trading Market; the Gas Supply Hub; the Western Australian Wholesale Electricity Market; the Declared Transmission System in Victoria; the Gas Bulletin Board in Western Australia; the Natural Gas Services Bulletin Board for the South East of Australia; developing the Gas Statement of Opportunities for Western Australia; and acting as the National Transmission Planner.
- B. REMCo operates a gas retail market scheme for gas distribution systems in Western Australia (**WA Gas Retail Market**) approved by the Minister for Energy of Western Australia under section 44 of the *Energy Legislation Amendment Act 2003* (WA) and amended by the Economic Regulatory Authority under section 11ZOM of the *Energy Coordination Act 1994* (WA) (**Scheme**).
- C. Section 11ZOF of the *Energy Coordination Act 1994* (WA) (**ECA**) requires the Scheme to consist of:
 - (a) one or more agreements made between persons who are gas market participants in relation to that system (**WA Gas Retail Market Agreement**);
 - (b) a formal entity (whether a company, partnership, trust or otherwise) to provide the structure through which the scheme is administered (**Formal Entity**); and
 - (c) a set of retail market rules.
- D. REMCo and AEMO agreed that the Scheme should be amended to transfer operation of the Scheme from REMCo to AEMO by:
 - (a) AEMO replacing REMCo as the Formal Entity of the Scheme;
 - (b) a new WA Gas Retail Market Agreement being entered into between AEMO and gas market participants in relation to the WA Gas Retail Market; and
 - (c) changing the retail market rules of the Scheme into retail market procedures.
- E. This agreement is the new WA Gas Retail Market Agreement for the purposes of section 11ZOF(1)(a) of the ECA between persons who are gas market participants in relation to the WA Gas Retail Market.

Provisions

1. Interpretation

- 1.1 In this Agreement, unless the context requires otherwise, the following expressions have the following meanings:

Admission Note	has the meaning given to it in clause 5.1 of this Agreement.
AEMO	means the Australian Energy Market Operator (ACN 072 010 327).
AEMO Constitution	means the constitution governing AEMO.
AEMO Member	means a member as defined in clause 1.1 of the AEMO Constitution.
Agreement	means this WA Gas Retail Market Agreement, including any schedules or annexures thereto.
Commencement Date	means the date on which the amendment to the Scheme to, amongst other things, transfer administration of the Scheme from REMCo to AEMO under section 11ZOL of the ECA takes effect.
Compliance Panel	means the independent Compliance Panel constituted under the Retail Market Procedures.
Deadline	has the meaning given to it in clause 5.4 of this Agreement.
ECA	means the <i>Energy Coordination Act 1994</i> (WA).
Eligible	has the meaning given to it in clause 5.1 of this Agreement.
ERA	means the Economic Regulation Authority established under the <i>Economic Regulation Authority Act 2003</i> (WA).
Formal Entity	has the meaning given to it in Recital C(b) of this Agreement.
Gas Distribution Operator	has the meaning given to it in section 11ZOC(1) of the ECA.
New Participant	has the meaning given to it in clause 5.1 of this Agreement.
Party	means a party to this Agreement from time to time, and Parties means one or more of them.
REMCo	means the Retail Energy Market Company Limited (ACN 103 318 556).
Retail Gas Operator	has the meaning given to it in section 11ZOC(1)(b) of the ECA.
Retail Market Procedures	means the Retail Market Procedures approved as part of the Scheme for the purposes of section 11ZOF(1)(c) of the ECA.
Scheme	has the meaning given to it in Recital B of this Agreement.

Scheme Participant	means a WA Gas Retail Market Participant who is a Party to this Agreement from time-to-time, by reason of that WA Gas Retail Market Participant having executed this Agreement, or by reason of that WA Gas Retail Market Participant becoming a Party to this Agreement in accordance with clause 5.
Self-Contracting User	has the meaning given to it in the Retail Market Procedures.
WA	means Western Australia.
WA Gas Retail Market	means the Western Australian Gas Retail Market.
WA Gas Retail Market Agreement	has the meaning given to it in Recital C(a) of this Agreement.
WA Gas Retail Market Participant	means a Gas Distribution Operator, a Retail Gas Operator or a Self-Contracting User.

1.2 In this Agreement, unless the context requires otherwise:

- (a) a reference to a statute includes its subordinate legislation and a modification or re-enactment of either;
- (b) headings are for convenience only and do not affect interpretation;
- (c) “under” includes by, by virtue of, pursuant to and in accordance with;
- (d) “including” and similar expressions are not words of limitation;
- (e) if a word or phrase is defined, other grammatical forms of that word or phrase have a corresponding meaning; and
- (f) unless the context otherwise requires, a reference to:
 - (i) a person includes a corporation, a firm, a body corporate, an unincorporated association or any authority;
 - (ii) the singular includes the plural;
 - (iii) time is a reference to Perth, Western Australia time; and
 - (iv) \$ is to Australian currency unless denominated otherwise.

2. Term

2.1 This Agreement commences on the Commencement Date and continues until the earlier of the date that:

- (a) AEMO is wound up in accordance with its Constitution or otherwise ceases to exist as a legal entity;
- (b) this Agreement is terminated; or
- (c) the Scheme is no longer an approved Scheme under section 44 of the *Energy Legislation Amendment Act 2003* (WA) or section 11ZOJ of the ECA.

3. Termination

- 3.1 This Agreement may only be terminated by the unanimous written agreement of all Parties.
- 3.2 Upon termination of this Agreement for any reason this clause will survive termination and the Parties will be bound by these provisions.
- 3.3 Subject to clause 3.4:
- (a) a breach of this Agreement by a Party does not give rise to any claim, action, dispute, demand, complaint, suit, proceeding, liability or cost; and
 - (b) a breach of this Agreement or any aspect of the Scheme and the liability of each Party with respect to any such breach is governed by the ECA, or the Retail Market Procedures, or both, as applicable.
- 3.4 AEMO may bring a claim, action, demand, suit or proceeding for any breach by a Scheme Participant of an obligation to pay an amount to AEMO pursuant to the Retail Market Procedures.
- 3.5 Termination will not affect any rights or obligations of the Parties which may have accrued on or before termination.

4. Nature and purpose

- 4.1 This Agreement is an agreement for the purposes of section 11ZOF(1)(a) of the ECA.
- 4.2 AEMO shall be bound by and operate in accordance with, and observe the roles, functions, powers and obligations set out in the respective Retail Market Procedures, as amended from time to time.
- 4.3 The primary aim of AEMO, in respect of the ECA, is to develop and operate cost efficient and effective retail market arrangements, which are fair and equitable, to facilitate competition in the WA Gas Retail Market.
- 4.4 AEMO must act in a manner which treats all Scheme Participants fairly and equitably and does not unfairly discriminate between the interests of Scheme Participants.
- 4.5 Upon becoming a Party to this Agreement, AEMO and Scheme Participants agree:
- (a) to be bound by and observe the terms of the Retail Market Procedures;
 - (b) that any amendments to the Retail Market Procedures shall be made in accordance with the terms of the Retail Market Procedures for the time being in force; and
 - (c) to abide by any determination made by the Compliance Panel in a matter to which the Scheme Participant is a party.

5. New Participants

- 5.1 A person that is not a Party to this Agreement may apply to AEMO to become a Party to this Agreement (**New Participant**) if it is eligible to do so. A New Participant will be eligible only if the person:
- (a) is a WA Gas Retail Market Participant who is lawfully entitled to carry on that business;
 - (b) honestly and accurately provides to AEMO the information required under clause 5.2;

- (c) is not being wound up in accordance with the *Corporations Act* 2001 (Cth);
- (d) is not immune from liabilities incurred under this Agreement or as a Scheme Participant;
- (e) is capable of being sued in its own name in a court of competent jurisdiction; and
- (f) agrees in writing to become bound by the terms and conditions of this Agreement.

(Eligible)

5.2 An application by a New Participant under clause 5.1 must be in the form of an admission note as annexed in the Annexure and must:

- (a) specify the name and ABN (if applicable) of the New Participant;
- (b) specify whether the New Participant is a Gas Distribution Operator, a Retail Gas Operator or a Self-Contracting User;
- (c) state that the New Participant is applying to become a Party to this Agreement; and
- (d) be signed by an authorised officer of the New Participant.

(Admission Note).

5.3 An Admission Note is an offer from the New Participant to the Parties (being AEMO and each WA Gas Retail Market Participant who was initially a Party to this Agreement and each WA Gas Retail Market Participant subsequently joining this Agreement under this clause 5) to amend this Agreement to add the New Participant as one of the Parties.

5.4 AEMO must accept an Admission Notice if the New Participant is Eligible. If AEMO is not satisfied a New Participant is Eligible (acting reasonably), it may reject or defer consideration of an Admission Note.

5.5 If a New Participant provides AEMO with an Admission Note, and AEMO provides written confirmation to the New Participant before 5:00 PM on the 10th Business Day after the notice is given (**Deadline**) that the Admission Note has been accepted, then the Parties are deemed by this clause 5.5 to have agreed irrevocably to the offer referred to in clause 5.3, and, subject to approval of the ERA, this Agreement is amended from the Deadline or such date as approved by the ERA to add the New Participant as one of the Parties.

6. Registration

6.1 WA Gas Market Participants that are Parties to this Agreement will be registered with AEMO as a Scheme Participant for the WA Gas Retail Market.

6.2 Gas Distribution Operators and Retail Gas Operators that are parties to this Agreement are members of the Scheme for the purposes of Part 2B of the ECA.

6.3 AEMO will maintain a register of all current Scheme Participants.

6.4 Subject to the AEMO Constitution, Scheme Participants may apply to become AEMO Members.

7. Exit provisions

- 7.1 A WA Gas Retail Market Participant ceases to be a Party to this Agreement and a Scheme Participant at the time that it ceases to be Eligible.
- 7.2 Each Scheme Participant must give reasonable information to AEMO on request to verify that it continues to be Eligible.
- 7.3 A WA Gas Retail Market Participant ceasing to be a Party to this Agreement and a Scheme Participant does not affect:
- (a) the rights of a Party to recover an amount or the obligation of a Party to pay an amount, that became payable prior to the date the Party ceased to be a party to this Agreement or a Scheme Participant;
 - (b) any rights of a Party that otherwise relate to, or may arise in the future from, any breach or non-observance of obligations under this Agreement;
 - (c) the obligation of a Party under any provision of the Retail Market Procedures relating to exiting the market.
- 7.4 Upon the date on which a WA Gas Retail Market Participant ceases to be a Party to this Agreement, this Agreement remains in full force and effect and binding on each of the remaining Scheme Participants.

8. Notices

- 8.1 Subject to clauses 8.2 and 8.3, a Party may deliver a notice in connection with this Agreement to another Party by email to the other Party at the email address attached to that Party in Schedule 1.
- 8.2 A Party must notify the other Parties of any change to its email address for the delivery of notices.
- 8.3 Upon receipt of notice under clause 8.2, the new email address becomes the Party's address for service of notices.
- 8.4 A notice takes effect at the time stated in the notice, except that if no time is stated in the notice or the time stated is before receipt, then a notice takes effect on receipt.

9. Costs

Each Party agrees to bear its own costs and expenses in complying with its obligations under this Agreement, except where expressly stated otherwise.

10. Assignment

No Party may assign, novate or transfer a right or obligation under this Agreement without the other Parties' prior written consent.

11. Amendments

This Agreement may only be varied by agreement in writing between the Parties and with the approval of the ERA under section 11ZOM of the ECA.

12. Governing Law

This Agreement is governed by the laws of Western Australia.

13. Severability

13.1 If at any time any provision of this Agreement is or becomes illegal, invalid or unenforceable at law, that provision will not affect or impair the legality, validity or enforceability of any other provision of this Agreement.

13.2 The remaining provisions of this Agreement remain in full force and effect.

14. Entire agreement

This Agreement constitutes the entire agreement between the Parties as to its subject matter and supersedes all prior negotiations, representations, proposals, undertakings and agreements, whether written or oral, relating to the subject matter of this Agreement.

15. Further Assurance

Each Party must do everything necessary to give full effect to this Agreement.

16. Counterparts

16.1 The Parties may execute this Agreement in any number of counterparts, which taken together constitute one instrument.

16.2 The Parties may exchange counterparts by scanning the entire duly executed counterpart and emailing it to the other Party.

Schedule 1 – Parties

Number	Name and address	Contact person	Email
1.	[insert]		[insert]
2.	[insert]		[insert]
3.	[insert]		[insert]
4.	[insert]		[insert]
5.	[insert]		[insert]
6.	[insert]		[insert]
7.	[insert]		[insert]
8.	[insert]		[insert]
9.	[insert]		[insert]

Annexure 1 – Admission Note

Admission Note

New Participant name: [insert]

New Participant ABN: [insert]

New Participant address: [insert]

New Participant contact person: [insert]

New Participant email address: [insert]

New Participant Category: [Gas Distribution Operator / Retail Gas Operator / Self-Contracting User] (delete whichever are not applicable)

[Insert name of New Participant] hereby applies to become a Party to the Western Australian Gas Retail Market Agreement dated [insert] (**Agreement**).

[Insert name of New Participant] acknowledges and agrees that if this application is accepted and [insert name of New Participant] is registered in accordance with the Agreement, [insert name of New Participant] agrees to be bound by the terms and conditions of the Agreement.

Defined terms used in this Admission Note have the same meaning as given to them in the Agreement.

Signed by [insert name and ABN of New)
Participant]:)
)

Signature of authorised officer

Date

Name of authorised officer

[Insert position of authorised officer]

Executed by the parties as a deed:

Executed as a deed by **Australian Energy)**
Market Operator Limited (ACN 072 010 327)
under s 127 of the Corporations Act:)

)

Signature of Director

Signature of Director/Company Secretary

(Delete title which does not apply)

Print name in full

Print name in full

Executed as a deed by **[insert] ACN [insert])**
under s 127 of the Corporations Act:

)

)

Signature of Director

Signature of Director/Company Secretary

(Delete title which does not apply)

Print name in full

Print name in full

Retail Market Procedures (WA)

Version 1

31 October 2016

Version control

Version Number	Effective Date	Comments	Authority
1	31/10/16	<p>Version 1 of the procedures was developed from version 6.9 of the Retail Market Rules that governed REMCo. Changes include:</p> <ul style="list-style-type: none">• C01/16R – Customer Transfer on Non-Business Days (amends clause 2 to clarify which customers can transfer on non-business days);• C02/16C – AEMO Transfer (amends the procedures, AEMO Specification Pack, and FRC Hub Operational Terms and Conditions to provide for the transfer of responsibility for operation of the WA gas retail market from REMCo to AEMO);• C03/16R – Verbal Consent for Large Customers (amends Appendix 6 to allow large customers to provide verbal explicit informed consent).	Economic Regulation Authority

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INTRODUCTION

PURPOSE

In 2003, the Western Australian Government amended the *Energy Coordination Act 1994* (WA) to implement full retail contestability in the State's gas retail markets.

Retail Energy Market Company Limited ("REMCo") was established by WA gas retail market participants in 2004 to develop and operate cost efficient and effective retail market arrangements to facilitate gas retail competition in Western Australia and South Australia. However, on 1 October 2009, REMCo transferred responsibility for operation of the South Australian gas retail markets to the *Australian Energy Market Operator* ("AEMO").

The remaining REMCo Members subsequently agreed to transfer the WA gas retail market operation to AEMO on 31 October 2016.

The purpose of these WA Gas Retail Market *Procedures* (the "*procedures*") is to govern the interactions between *participants*, *pipeline operators*, *prescribed persons* and AEMO in the Western Australian gas retail market.

STATUS

The Gas Retail Market Scheme

Under section 11ZOB of the *Energy Coordination Act 1994* (WA), the purpose of a retail market scheme for a distribution system is to ensure that the retail gas market supplied through that system is regulated and operates in a manner that is open, competitive, efficient and fair to gas market participants and their customers

Each retail market scheme must have a formal entity to administer the scheme and AEMO has been appointed as the formal entity for the WA gas retail market.

The *WA Gas Retail Market Agreement* operates as a contract between *Scheme participants* (under section 11ZOF of the *Energy Coordination Act 1994*), and requires AEMO and the *Scheme participants* to comply with these *procedures*. As a result, these *procedures* are a contractual term of the *WA Gas Retail Market Agreement*; so *Scheme participants* or AEMO may bring an action to enforce the terms of the *WA Gas Retail Market Agreement* (including a provision of these *procedures*) against the other *Scheme participants* or against AEMO itself.

Regulatory status

Under section 11ZOC of the *Energy Coordination Act 1994* (WA), where there is more than one gas distribution operator or retail gas operator on a gas distribution system, each gas distribution operator and retail gas operator must be bound by agreement to comply with the relevant provisions of an "approved retail market scheme" for that distribution system.

The *WA Gas Retail Market Agreement* is the agreement between gas distribution operators and retail gas operators for the AEMO Scheme for the WA gas retail market, and requires AEMO and the *Scheme participants* to comply with these *procedures*.

In addition, gas transmission operators and persons prescribed under regulations must comply with the relevant provisions of the “retail market rules” made as part of an approved retail market scheme for a distribution system. These *procedures* are the “retail market rules” made as part of the approved retail market scheme.

The Western Australian Minister for Energy approved the *REMC*o Scheme under section 44 of the *Energy Legislation Amendment Act 2003* (WA) in 2004; and in 2016, the *Economic Regulation Authority* approved amendments to the *REMC*o Scheme under section 11ZOM of the *Energy Coordination Act 1994* (WA) to amend the *REMC*o Scheme into the *AEMO* scheme. The elements of the *AEMO* Scheme are the *WA Gas Retail Market Agreement*, these *procedures*, the *AEMO Specification Pack* and the *FRC Hub Operational Terms and Conditions*.

Amendments to the *AEMO* Scheme must be submitted to the *Economic Regulation Authority* under section 11ZOL of the *Energy Coordination Act 1994* (WA) for approval under section 11ZOM of the *Energy Coordination Act 1994* (WA).

OTHER RELEVANT DOCUMENTS

These *procedures* are one element of the retail market arrangements that *AEMO* operates for the Western Australian gas market. These *procedures* should be read in conjunction with:

- the following documents that relate to the operation of the WA gas retail market and the related Gas Retail Market System; and the manner in which *participants*, *pipeline operators*, *prescribed persons* and *AEMO* interact in the gas market:
 - the *WA Gas Retail Market Agreement*;
 - the *AEMO Specification Pack*;
 - the User Guidelines for the *AEMO Specification Pack*; and
 - the *FRC Hub Operational Terms and Conditions*; and
- all applicable *laws*.

~~In 2003, the Western Australian Government amended the *Energy Coordination Act 1994* (WA) to implement full retail contestability in the State’s gas retail markets.~~

~~*REMC*o was established by *REMC*o members in 2004 to develop and operate cost efficient and effective retail market arrangements to facilitate gas retail competition in Western Australia and South Australia. However, on 1 October 2009, *REMC*o transferred responsibility for operation of the South Australian gas retail markets to the Australian Energy Market Operator (“*AEMO*”).~~

~~The purpose of these rules is to govern the interactions between *participants*, *pipeline operators*, *prescribed persons* and *REMC*o in the Western Australian gas retail markets.~~

STATUS

Membership of REMCo

~~Where a gas network has more than one user and/or network operator, then each network operator and user (except for self-contracting users) participating in the gas retail market on that network must be a member of a retail market scheme.~~

~~Each retail market scheme must have a formal entity to administer the scheme. REMCo was established by its members as a company limited by guarantee to be the formal entity for the REMCo retail market scheme.~~

~~The REMCo Constitution operates as a contract between REMCo members, and requires the REMCo members to comply with these rules. As a result, these rules are a contractual term of the REMCo Constitution, so a REMCo member, or REMCo itself, may bring an action to enforce the terms of the REMCo Constitution (including a provision of these rules) against the other REMCo members or against REMCo itself.~~

Regulatory status

~~Under section 11ZOC of the Energy Coordination Act 1994 (WA), where there is more than one gas distribution operator and/or retail gas operator on the gas distribution system, each gas distribution operator and retail gas operator must be bound by agreement to comply with the relevant provisions of an "approved retail market scheme" for that distribution system.~~

~~In addition, gas transmission operators and persons prescribed under regulations must comply with the relevant provisions of the retail market rules made as part of an approved retail market scheme for a distribution system.~~

~~The Western Australian Minister for Energy approved the REMCo scheme under section 44 of the Energy Legislation Amendment Act 2003 (WA). The REMCo scheme is defined as these Rules, the REMCo Constitution, the REMCo Specification Pack, the FRC Hub Conditions and the Transitional Agreement (the Transitional Agreement is no longer in effect).~~

~~Amendments to the REMCo scheme must be submitted to the Economic Regulation Authority for approval under section 11ZOJ of the Energy Coordination Act 1994 (WA).~~

OTHER RELEVANT DOCUMENTS

~~These rules are one element of the retail market arrangements that REMCo operates for the Western Australian gas markets. These rules should be read in conjunction with:~~

- ~~• the following documents that relate to the governance of REMCo; the operation of the Gas Retail Market System that supports these rules; and the manner in which participants, pipeline operators, prescribed persons and REMCo interact in the gas markets:~~
 - ~~○ the REMCo Constitution;~~
 - ~~○ the REMCo Specification Pack;~~
 - ~~○ the User Guidelines for the REMCo Specification Pack; and~~

~~○ the FRC Hub Operational Terms and Conditions; and~~

~~● all applicable Western Australian laws. Whether or not a person is required to comply with a particular law will depend on that person's constitution, business and activities. Each person should obtain their own advice in relation to compliance with such laws.~~

Chapter 1 – Interpretation and administration of the ~~rules~~procedures

Part 1.1 – ~~Commencement, d~~Definitions and interpretation

1. ~~Commencement~~ There is no clause 1.

~~These rules commenced in Western Australia on the go-live date.~~

2. Definitions

In these ~~rules~~procedures, unless the contrary intention appears:

“**accepted part**” has the meaning given to it in ~~rule~~clause 194(2).

“**Access Arrangement**” means an arrangement for third party access to, as the case may be, a *network operator’s network* or a *pipeline operator’s pipeline*, in either case approved under the *National Gas Access (Western Australia) Law*.

“**accurate**” includes complete, correct and current (where applicable, subject to the time frames for updating the ~~REMCo~~AEMO registry and *network operators’* databases under these ~~rules~~procedures).

“**active GBO identification**” means the status of a person’s *GBO identification* in the ~~REMCo~~AEMO registry is neither “suspended” nor “deregistered”.

“**active in the market**” has the meaning given to it under ~~rule~~clause 377B(1).

“**actual allocation proportion**” has the meaning given to it under ~~rule~~clause 249.

“**actual UAFG**” has the meaning given to it under clause~~rule~~ 230(1).

“**actual value**” means, subject to ~~rule~~clause 157(2), a value calculated under ~~rule~~clause 155, and to avoid doubt includes a *deemed actual value*.

{Note: ~~Rule~~clause 157(2) permits a *substituted value* to be used in place of an *actual value*.}

{Note: For a *basic-metered delivery point*, an *actual value* may be calculated after undertaking either a *scheduled meter reading* or a *special meter reading* and also for the purposes of a *deemed meter reading*.}

“**additional service**” means an activity undertaken by ~~REMCo~~AEMO upon request from a Scheme participant ~~member~~—which is additional to an activity that ~~REMCo~~AEMO is otherwise required to perform under the ~~rules~~procedures.

“**additional service charge**” means a charge determined by ~~REMCo~~AEMO which recovers any costs incurred by ~~REMCo~~AEMO where the total costs were in excess of \$5,000 arising from the provision of an *additional service* to a Scheme participant ~~member~~—where, in ~~REMCo~~AEMO’s opinion, that *additional service* will provide a benefit only to that Scheme participant ~~member~~ and no benefit will be provided to:

- (i) any other *participant/s* or *prescribed person/s*, not being any *related body corporate/s* of the Scheme participant ~~member~~; or

(ii) generally, a retail gas market.

{Note: ~~in the RMR~~ the definition of a “prescribed person” is any shipper, swing service provider or self-contracting user}.

“addressee” has the meaning given to it in ~~rule~~ [clause 12A\(1\)](#).

“adjusted non-user-specific amount” has the meaning given to it under ~~rule~~ [clause 272](#).

“adjusted user-specific amount” has the meaning given to it in ~~rule~~ [clause 274](#).

“AEMO” means the Australian Energy Market Operator Limited (ACN 072 010 327).

“AEMO information system” means AEMO’s equipment, hardware and software (including the AEMO registry) used to perform AEMO’s obligations under these procedures.

“AEMO registry” means the database maintained by AEMO under clause 19(1), containing at least the AEMO standing data and the information referred to in clause 22(4).

{Note: The information referred to in clause 22(4) relates to GBO identifications.}

“AEMO Specification Pack” means the suite of documents, as approved by AEMO and the approving body, to support the operation of these procedures.

“AEMO standing data”, in relation to a delivery point, means the information set out in clause 20(1) for the delivery point.

“affected gas day” means the gas day on which ~~REMC~~[AEMO](#) sends a notice under ~~rule~~ [clause 301A\(3\)\(a\)](#)

“allocation instruction” means a notice under ~~rule~~ [clause 188](#) from a user to ~~REMC~~[AEMO](#) specifying how the user’s injections into a sub-network are to be allocated between the shippers injecting gas into the sub-network on the user’s behalf for a gas day.

“allowable period” means the period of 102 days after the lodgement of a transfer request under ~~rule~~ [clause 80](#).

“alternative amendment” means an amendment to a recommended ~~rule~~ [procedure change](#) under ~~rule~~ [clause 399A\(7\)](#), ~~rule~~ [clause 400\(4\)\(b\)](#) or ~~rule~~ [clause 400A\(1\)\(b\)](#).

“annual adjustment date” has the meaning given to it under ~~rule~~ [clause 362A\(4\)](#).

“anticipated annual consumption” means the annual volume of gas anticipated by a network operator to be withdrawn at a delivery point, determined in accordance with ~~section 0 of~~ Appendix 2.

“ANUSA bid” has the meaning given to it under ~~rule~~ [clause 288](#).

“applied request” has the meaning given to it in ~~rule~~ [clause 270](#).

“**appointor**” has the meaning given to it under [rule clause 359\(2\)](#).

“**approving body**” means the person to whom an *endorsed ~~rule~~ procedure change* must be submitted for approval under the *Energy Coordination Act 1994* (WA).

{Note: At the time version [16.0](#) of the ~~rules~~ *procedures* commenced, the person to whom an *endorsed ~~rule~~ procedure change* must be submitted for approval ~~was~~ *is* the Economic Regulation Authority.}

“**as-retrieved**” means data as retrieved from field equipment by *telemetry* without any examination of the data to determine the validity or completeness of the data or whether there are any obvious errors or omissions in the data.

“**associated persons**” has the meaning given to it under [rule clause 376](#).

“**auditor**” means an auditor appointed under Part 7.2.

“**AUSA bid**” has the meaning given to it under [rules clauses 287 and 288](#).

“**automated response message**” means an email (“**reply email**”) sent automatically, subject to [rule clause 12A\(4\)](#), upon receipt of an email (“**original email**”), where the *reply email* is sent from an *addressee’s information system* to the *sender* of the *original email*, acknowledging that the *original email* has been received by the *addressee’s information system* and containing:

- (a) the name of the *originator* of the *original email*;
- (b) at least the time, date and subject title of the *original email*;
{Note: The easiest means to record this information may be to include the whole of the *original email*, preferably excluding attachments, within the *reply email*.}
- (c) the name of the *addressee* of the *original email*; and
- (d) the date and time the *original email* was received by the *addressee’s information system* (which in the absence of evidence to the contrary is taken to be the creation date of the *reply email*).

“**basic meter**” means a *meter* which is not an *interval meter*.

{Note: This includes all *meters* which are not read daily by means of *telemetry*, even if they record gas flow and other data over daily or shorter intervals.}

“**basic-metered**”, in relation to a *delivery point*, means that gas deliveries at the *delivery point* are measured by a *basic meter* or *basic meters*.

“**bid**” means a bid by a *swing service provider* to [REMCo AEMO](#) for the provision of *swing service*, and is valid if it meets the criteria set out in [rule clause 282](#).

“**bid book**” is lodged with [REMCo AEMO](#) under [rule clause 281](#) and contains one or more *bids* for the provision of *swing service* for the *gas day* to which the *bid book* applies.

“**bid stack**” has the meaning given to it in [rule clause 285](#).

“**bulk [REMCo AEMO](#) standing data**” has the meaning given to it in [rule clause 23\(1\)](#).

“bulk ~~REMC~~^{AEMO} standing data request” has the meaning given to it in ~~rule~~^{clause} 23(2).

“business day” means ~~for each jurisdiction and for REMCo operating in each jurisdiction~~, the *business hours* of a day that is not a Saturday, Sunday or a public holiday in ~~Western Australia~~^{the relevant jurisdiction}.

“business hours” means the period between *start of business* and *close of business*.

“cancel”, in relation to a *transaction*, means terminate the *transaction* before completion.

“claim” includes any claim, legal action or demand.

“~~clause~~¹⁹²⁽²⁾ notice” has the meaning given to it in ~~clause~~¹⁹²⁽²⁾.

“close of business” means 1700 hours ~~in the relevant jurisdiction~~.

“commissioned”, in relation to a *MIRN*, means that:

- (a) the *delivery point* has been commissioned by the *network operator* under ~~rule~~^{clause} 65(1) (although this does not necessarily mean that the consumer’s installation downstream of the *meter* is commissioned nor that the *meter* valve is turned on); and
- (b) the *delivery point* is not *disconnected* or *permanently removed* (including after the *delivery point* has been *reconnected*); and

includes:

- (c) if the *delivery point’s* ability to flow gas has been temporarily interrupted by a means that may be restored by the consumer, rather than a licensed gas fitter or *network operator* (i.e. where the *meter* valve has merely been switched off); and

{Note: The typical means used to achieve this temporary interruption is closure of the *meter* valve and this may occur for non-application, non-payment or final read/move out.}

- (d) short interruptions to the *delivery point’s* ability to flow gas due to *network* maintenance such as a *meter* change.

{Note: This will include instances where the *meter* valve was left closed after a *meter* change due to a “drop on supply”, i.e. the consumer’s installation was unable to hold pressure.}

“compensable swing quantity” has the meaning given to it in ~~rule~~^{clause} 300.

“compensating person” has the meaning given to it under ~~rule~~^{clause} 300A(1).

“complete *MIRN* listing” A listing created and administered by a *network operator* that comprises the *MIRN*, *discovery address* and *meter number* of every *MIRN* that is recorded in the *MIRN database* of that *network operator*.

“compliance panel” means the panel created under ~~rule~~^{clause} 309.

“confidential information” means confidential and proprietary information of a *participant, pipeline operator or prescribed person*, that:

- (a) is or might reasonably be expected to be confidential in nature or to be special, unique, proprietary or to give the person a competitive advantage; or
- (b) is disclosed in circumstances of confidentiality.

“contract note” means a *notice* issued by [REMCeAEMO](#) under [rule clause 296](#) allocating an amount of *swing service* between a *swing service provider* and a *user*.

“corrected recalculated ratio” means the ratio calculated under [rule clause 176\(4\)\(b\)](#).

“corrected volume” or **“V_{CR}”** means the volume of gas corrected to metric standard conditions and for the *basic meters* it is calculated using the following formula:

$$V_{CR} = V_{UN} \times \text{pressure correction factor.}$$

“cost” includes any cost, charge, expense, outgoing, payment or other expenditure of any nature whatever.

“covered sub-network” – means a *sub-network* that is not an *uncovered sub-network*.

“current user”, in relation to a *delivery point*, means the *user* who is assigned to the *delivery point* in the [REMCeAEMO](#) registry.

“customer” means a *person* who takes or intends to take gas from a *user* at a *delivery point*.

“daily unaccounted for gas reconciliation amount”, for a *sub-network*, is a quantity of gas and is calculated under [rule clause 240\(3\)](#).

“data change notice” means a *notice* under [rule clause 27\(3\)](#) by the *network operator* to [REMCeAEMO](#) regarding a change, or anticipated change, to items 20(1)(f), 20(1)(g), 20(1)(h), 20(1)(k) or 20(1)(l) of the [REMCeAEMO](#) standing data for a *delivery point*.

“data change transaction” means the *transaction* initiated by lodgement of a *data change notice*.

“decommissioned”, in relation to a *MIRN*, means that the *delivery point* has been *disconnected*.

“deemed actual value” means the *actual value* contained in a *deemed meter reading*.

“deemed meter reading” is defined in [rule clause 148](#).

“delisting request” means a request under [rule clause 173\(2\)\(b\)](#) by a *shipper* or a *swing service provider* to [REMCeAEMO](#) to remove the *shipper’s* or *swing service*

provider's listing from a *shipper register* in respect of a *user* and a *sub-network* from a specified *effective date*.

"delivery point" means a point defined in a *haulage contract* as the point on the *sub-network* at which a *network operator* delivers gas out of the *sub-network* to a *user*.

{Note: The *delivery point* is normally located at:

- (a) the inlet of a *gas installation* at a *customer's* premises; or
- (b) the outlet of a *meter* at a *customer's* premises.

Usually, after the *network operator* delivers the gas to the *user*, the *user* immediately on-delivers it to a *customer*.)

~~**"delivery point identifier"**, for the purposes of the REMCo Constitution, has the same meaning as MIRN in these rules.~~

"delivery point transaction", in relation to a *delivery point*, means any or all of a *new connection confirmation notice*, a *permanent removal confirmation notice* and a *transfer*.

"delta basic-meter withdrawal reconciliation amount" or "**ΔBWRA**", for a *user*, is a quantity of gas and is calculated under [rule clause 237](#).

"delta pipeline injection" or "**ΔPI**", for a *gate point*, is a quantity of gas and is calculated under [rule clause 238\(3\)](#).

"delta summed basic-meter reconciliation amount" or "**ΔSBRA**", for a *user*, is a quantity of gas and is calculated under [rule clause 234](#).

"delta unaccounted for gas", for a *sub-network*, is a quantity of gas and is calculated under [rule clause 240\(2\)](#).

"deregistered", in relation to a *MIRN*, means that the *delivery point* has been *permanently removed*.

{Note: When a *MIRN* is *deregistered*, subject to Division 2.2.3, the process is irreversible, see [rule clause 133\(2\)](#). Except if a valid *error correction notice* has been accepted by [REMCoAEMO](#) under [rule clause 35\(a\)](#) in respect of an incorrect *permanent removal confirmation notice*, a *deregistered MIRN* may never be allocated another *MIRN status*, may never be *transferred*, and takes no part in calculations or allocations under Chapter 5. If supply is recommenced at the supply address, a new *MIRN* will be issued.)

"disconnected", in relation to a *delivery point*, means that the *delivery point's* ability to flow gas has been temporarily interrupted in such a manner that gas flow may not lawfully be restored by the *customer*.

{Note: This means, for example, that either the regulator has been removed, the meter has been temporarily removed or the *meter* valve has been locked by the *network operator*. The *user* remains responsible for the *delivery point*.)

"disconnection confirmation notice" means a *notice* under [rule clause 112](#) from a *network operator* to [REMCoAEMO](#) advising [REMCoAEMO](#) that a *delivery point* has been *disconnected*.

"disconnection notice" means a *notice* under [rule clause 105\(3\)](#) from a *user* to a *network operator* requesting *disconnection* of a *delivery point* specified in the *notice*.

“**disconnection withdrawal notice**” means a *notice* under [rule clause](#) 108(2) from a user to a *network operator* withdrawing an *open disconnection notice* for a *delivery point* specified in the *disconnection withdrawal notice*.

“**discovery address**”, in relation to a *delivery point*, means the address of the premises comprising (as applicable):

- (a) flat/unit type; and
{For example: “Flat”, “Unit”, “Apartment” or “Shop”.}
- (b) flat/unit number; and
{For example: “18” or “3A”.}
- (c) floor level type; and
{For example: “sublevel”, “basement”, “ground floor” or “floor”.}
- (d) floor level number; and
{For example: “2”.}
- (e) building/property name; and
{For example: “North Wing, Treasury Building” or “Brindabella”.}
- (f) location; and
{For example: “corner”, “near” or “via”.}
- (g) house number; and
- (h) house number suffix; and
{For example: “A”.}
- (i) lot number; and
{Note: Lot numbers are allocated to an address prior to street numbering. }
- (j) lot number suffix; and
{For example: “B”.}
- (k) street name; and
{For example: “Rundle” or “Murray”.}
- (l) street type code; and
{For example: “St”, “Rd”, “Ave”, or “Blvd”.}
- (m) street suffix; and
{For example: “N”, “S”, “E” or “W”.}
- (n) suburb/place/locality; and
{For example: “[Adelaide](#)[Perth](#)”, “Mosman Park” or “[Kipparing](#)[Mt Lawley](#)”.}
- (o) *State/Territory*; and
{For example: “WA”}

(p) post code.

“**dispute**” includes any difference, dispute, matter, question, controversy, *claim* or legal action in connection with or arising out of these ~~rules~~[procedures](#).

“**distributed actual basic-metered withdrawal**” or “**DABW**”, for a *basic-metered delivery point*, is determined under ~~rule~~[clause](#) 232.

“**distribution licence**” means a licence that authorises the licence holder:

- (a) to construct a *GDS* and to transport gas through the *GDS*; or
- (b) to transport gas through an existing *GDS*, and if required for that purpose to make alterations to the *GDS*,

and to operate and maintain the *GDS*.

{Note: The classification of a “distribution” licence is set out in section 11D(1)(a) of the *Energy Coordination Act 1994* (WA).}

“**distribution tariff code**”, for a *delivery point*, means a code determined by a *network operator* as a *reasonable and prudent person* and published in accordance with ~~rule~~[clause](#) 6B, which provides information concerning the applicable haulage tariff and the existence of *delivery point*-specific charges under the *user’s haulage contract* in respect of the *delivery point*.

“**dog code**” refers to a list of codes contained in the “FRC B2B Systems Interface Definitions” in the ~~REMC~~[CoAEMO](#) *Specification Pack*.

“**earlier allocation instruction**” means the *allocation instruction* that applied at the start of a *gas day*, being either an *allocation instruction* for the *gas day* or an ~~an~~ allocation made by ~~REMC~~[CoAEMO](#) under ~~rule~~[clause](#) 192(2) for the *gas day*.

“**earliest transfer day**” means the date specified in a *transfer request* as the earliest day on which the *requested transfer* may take place, which for a *move in*, would be the date the *customer* is moving into the premises.

{Note: the *earliest transfer day* for a *delivery point* with a *basic meter* must be a *business day*, unless otherwise agreed by the *user* and the *network operator*. The *earliest transfer day* for a *delivery point* with an *interval meter* can be any day.}

“**Economic Regulation Authority**” has the same meaning as “*Authority*” has under the *Energy Coordination Act 1994* (WA).

{Note: At the time these ~~rules~~[procedures](#) commenced, that definition was: “... means the Economic Regulation Authority established by the *Economic Regulation Authority Act 2002*”.

“**EDD**” means effective degree day.

“**effective date**”, as used in ~~rule~~[clause](#) 173 and associated definitions, has the meaning given to it by that ~~rule~~[clause](#).

“**electronic form**” means a structured electronic file that is capable of being downloaded.

{Note: These ~~rules~~ procedures do not prescribe the mode of transmission for a communication in *electronic form*. It may be delivered in any form convenient to the sender and recipient, such as by email, CD-ROM or DVD.}

“endorsed ~~rule~~ procedure change” means a high impact or low impact recommended ~~rule~~ procedure change endorsed by ~~REMC~~ oAEMO under ~~rule~~ clause 399(1)(a).

“energy value” means an *actual value*, a *deemed actual value*, an *estimated value* or a *substituted value*, as applicable.

“energy value type” means one of the four types of an *energy value*, namely *actual value*, *deemed actual value*, *estimated value* or *substituted value*, as applicable.

“error correction notice” means a *notice* under ~~rule~~ clause 32(6) to ~~REMC~~ oAEMO regarding a correction to the ~~REMC~~ oAEMO standing data for a *delivery point* as a result of an incorrect *delivery point transaction*.

“error correction objection” means a *notice* under ~~rule~~ clause 36(2) from a participant to ~~REMC~~ oAEMO objecting to an *error correction transaction* lodged in respect of an incorrect *transfer*, for a *delivery point* specified in the *notice*.

“error correction objection resolution period” means (as applicable):

- (a) if an *error correction objection* is not lodged under ~~rule~~ clause 36(1) — the period ending when the time allowed for lodging an *error correction objection* under ~~rule~~ clause 36(1) expires; or
- (b) if an *error correction objection* is lodged under ~~rule~~ clause 36(1) — the period ending when the time allowed for lodging an *error correction objection withdrawal notice* under ~~rule~~ clause 39(1) expires.

“error correction objection withdrawal notice” means a *notice* under ~~rule~~ clause 39(2) from a participant to ~~REMC~~ oAEMO withdrawing an *open error correction objection* for a *delivery point* specified in the *notice*.

“error correction transaction” means the *transaction* initiated by lodgement of an *error correction notice*.

“error correction withdrawal notice” means a *notice* under ~~rule~~ clause 43(3) from a current user to ~~REMC~~ oAEMO withdrawing an *open error correction notice* lodged in respect of an incorrect *transfer*, for a *delivery point* specified in the *notice*.

“estimated basic-metered withdrawal” for a *basic-metered delivery point* is calculated under ~~rule~~ clause 226.

“estimated value” means a value calculated under ~~rule~~ clause 156, and (except in ~~rule~~ clause 157), does not include an *estimated value* which has been designated under ~~rule~~ clause 157 to be a *substituted value*.

“EUAFG” means estimate of unaccounted for gas under ~~rule~~ clause 229.

“exit the market” has the meaning given to it under ~~rule~~ clause 377B(1).

“explicit informed consent” means consent given by a *customer* under [rule clause 349](#).

“final check” has the meaning given to it under [rule clause 269](#).

“first check” has the meaning given to it in [rule clause 269](#).

“flow profile control” in relation to a *gate point* means a control system designed to control the *gate point* flow rate such that:

- within normal equipment tolerances, the *gate point* flow for a *gas day* follows a *profile* and equals the sum of all *users’ user’s pipeline nomination amounts* for the *gate point*; and
- the *gate point* discharge pressure is limited to the maximum allowable operating pressure of the *sub-network*.

“flow ratio control” in relation to a *gate point* means a control system designed to control the *gate point* flow rate such that:

- within normal equipment tolerances, the *gate point* flow rate is maintained at a pre-determined ratio to the flow rate of all other *gate points* connected to the *sub-network*; and
- the *gate point* discharge pressure is limited to the maximum allowable operating pressure of the *sub-network*.

“flow signal” has the meaning given to it in [rule clause 217A](#).

“force majeure event” in relation to any person, means any acts beyond the reasonable control of that person which prevents, hinders or delays that person from or in the performance of any obligation of that person under any agreement, but excluding any acts resulting from any action, or omission or default of that person, or any agent of that person.

“FRC Hub” means the *information system* provided by [REMCo AEMO](#) for the transmission of aseXML messages under these [rules procedures](#).

“FRC Hub certification criteria” means the criteria specified in the Connectivity Testing and Technical Certification document within the [REMCo AEMO Specification Pack](#).

“FRC Hub certification process” means the testing process set out in the Connectivity Testing and Technical Certification document within the [REMCo AEMO Specification Pack](#) to ensure that a person’s *information system* complies with the requirements of the *FRC Hub Operational Terms and Conditions*.

“FRC Hub compliance certificate” means a certificate issued by [REMCo AEMO](#) certifying that the person named in the certificate is entitled to send and receive *notices* under these [rules procedures](#) via the *FRC Hub*.

“FRC Hub Operational Terms and Conditions” means the terms and conditions published by ~~the Australian Energy Market Operator under which REMCO~~[AEMO](#), that each *user* and *network operator* seeking connection to [the FRC Hub](#) and are obliged to operate under when connecting to and issuing or ~~receiving~~[receiving](#) transactions on the *FRC Hub*.

“FSS” means the swing service fee calculated under ~~rule~~[clause](#) 295(1).

“full business day” means a full 9 hour period commencing at *start of business* and ending at *close of business*.

{Examples: If an objection must be lodged within 2 *full business days* after a *process time*, then:

- (a) if the *process time* is 7.59am on Tuesday, the objection must be lodged before 5.00pm on Wednesday; and
- (b) if the *process time* is 8.01am on Tuesday, the objection must be lodged before 5.00pm on Thursday; and
- (c) if the *process time* is 11.00am on Friday, the objection must be lodged before 5.00pm on Tuesday; and
- (d) if the *process time* is 11:00pm on Tuesday, the objection must be lodged before 5:00pm on Thursday)

“gas day” means the 24 hour period starting at 0800 hours on a day and ending at 0800 hours on the following day.

“gas day D” has the meaning given to it by ~~rule~~[clause](#) 3(3).

“gas emergency” means either an emergency as defined in Schedule 3 – Gas Supply System Emergencies – of the *Energy Coordination Act 1994*, or that an operator has taken action under clause 2 of Schedule 3 of the *Energy Coordination Act 1994*.

“gas installation” has the same meaning as it has under the *Gas Standards Act 197*.

{Note: At the time these ~~rules~~[procedures](#) commenced, that definition was “...means any appliance, pipes, fittings or other apparatus installed or to be installed for or for purposes incidental to the conveyance, control, supply or use of gas”.

“gas zone” means a part of a *GDS* which a *network operator* identifies under ~~rule~~[clause](#) 15 as a gas zone for contractual and operational purposes.

{Note: In most instances, each *sub-network* will be a single *gas zone*.}

“gas zone code” means the 5-digit numeric gas code assigned to each *gas zone* within a *GDS* under Appendix 1.

“gate point” for a *sub-network* means a point (which may be the same location as a *physical gate point*), which is designated as a gate point under ~~rule~~[clause](#) 174 for the *sub-network*.

{Note: A *gate point* is also sometimes called a “delivery point” or a “notional gate point” by *pipeline operators*, and a “receipt point” by *network operators*. The *gate point* is usually adjacent to an associated “gate station” and it is the sum of all “physical gate points” from a *pipeline* on a *sub-network*.}

“gate point adjustment amount”, for a *gate point*, is a quantity of gas and is calculated under ~~rule~~[clause](#) 243(2).

“gate point metering data” has the meaning give to it under [ruleclause](#) 152(1)(a).

“GBO identification” means the unique gas business operator identifier issued by [REMGCoAEMO](#) under [ruleclause](#) 22 to [REMGCoAEMO](#) and to each person required to comply with these [rulesprocedures](#).

“GDS” means the gas distribution system being those pipelines owned and operated by a *network operator*.

~~“go-live date” means the date on which Part 3, Division 2 of the *Energy Legislation Amendment Act 2003* came into operation. The go-live date is 14 May 2004.~~

~~{The go-live date is 14 May 2004, as Part 3, Divisions 2 of the *Energy Legislation Amendment Act 2003* was proclaimed on that on 14 May 2004 — see the Western Australian Government Gazette No. 2004/28, dated 13 May 2004.}~~

“GST” has the same meaning as it has under the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).

{Note: At the time these [rules-procedures](#) commenced, that definition was: “...means tax that is payable under the GST law and imposed as goods and services tax by any of these:

- (a) the A New Tax System (Goods and Services Tax Imposition—General) Act 1999; or
- (b) the A New Tax System (Goods and Services Tax Imposition—Customs) Act 1999; or
- (c) the A New Tax System (Goods and Services Tax Imposition—Excise) Act 1999.”}

“haulage contract” means a contract between a *network operator* and a *user* for the transportation of gas through the *network operator’s GDS* and, for the purposes of [ruleclause](#) 86(1), also means that:

- (a) any condition precedent to the contract has been satisfied or waived; and
- (b) no notice to validly terminate the contract has been issued by a party to the contract to the other party.

“hearing” means that part of the *proceeding* during which the *compliance panel* receives oral submissions from *parties*.

“heating value” has the same meaning as “higher heating value” has in the *Gas Standards (Gas Supply and System Safety) Regulations 2000* (WA):

{Note: *heating value* is also known as “higher heating value”, “gross heating value” and “superior heating value”.}

{Note: At the time these [rules-procedures](#) commenced, that definition was: “...means the number of megajoules liberated when one cubic metre of gas is completely burnt in air and all the water formed by the combustion reaction is condensed to the liquid state, under the test conditions set down in ISO 6974 — 1984(E) for the analysis of the natural gas, using ISO 6976 — 1995(E) for the calculations from that analysis”.

“heating value data” means the *heating value* for a *gas zone* for a *gas day* that is calculated under [ruleclause](#) 169.

“historical gas day i” has the meaning given to it under [ruleclause](#) 218(3).

“historical metering data” means the *metering data* for every *delivery point* in a *network operator’s GDS* retained in accordance with [ruleclause](#) 168.

“**historical meter reading data**”, in relation to a *delivery point*, means the *meter reading data* for the *delivery point* retained under [rule clause 168](#).

“**historical period**” has the meaning given to it under [rule clause 218\(3\)](#).

“**historical ~~REMC~~AEMO standing data**”, in relation to a *delivery point*, means the ~~REMC~~AEMO standing data for the *delivery point* retained by ~~REMC~~AEMO under [rule clause 54](#).

“**historical ~~REMC~~AEMO standing data request**” means a *notice* under [rule clause 56\(4\)](#) from a *user* or a *network operator* to ~~REMC~~AEMO requesting *historical ~~REMC~~AEMO standing data* for a *delivery point* specified in the request.

“**historical UAFG day**” has the meaning given to it in [rule clause 230](#).

“**hourly basic-meter withdrawals**” has the meaning given to it in [rule clause 252](#).

“**hourly interval-metered withdrawals**” or “**HIW**” has the meaning given to it in [rule clause 251](#).

“**hourly net system load**” has the meaning given to it in [rule clause 252](#).

“**hourly sub-network profiled forecast**”, in [rule clause 215\(3\)\(c\)](#) means the component for the hour of the *sub-network profiled forecast*.

“**in-progress ~~rule~~procedure change**” means:

- (a) a proposed ~~rule~~procedure change or recommended ~~rule~~procedure change that has not been rejected by ~~the rule change committee~~AEMO under [rule clause 394\(2\)](#)~~394(5)~~ or rejected by ~~REMC~~ under [rule clause 399\(1\)\(b\)](#); or
- (b) an endorsed ~~rule~~procedure change that has not been rejected by the approving body following its submission to that body under [rule clause 400A\(3\)\(b\)](#).

“**immediately**”, in relation to a *notice*, is defined in [rule clause 11\(1\)](#).

“**impact and implementation report**” means a report under [rule clause 379](#) from ~~REMC~~AEMO to the ~~rule~~procedure change committee on a proposed ~~rule~~procedure change.

“**inaccurate**” means not *accurate*.

“**incoming user**” means a *user* or prospective *user* who wishes to withdraw gas at a *delivery point* where another *user* is the *current user*.

“**indemnifier**” has the meaning given to it in [rule clause 366\(1\)](#).

“**indemnifying party**” has the meaning given to it under [rule clause 377A\(1\)](#).

“**index reading**” means the numerical reading of a *meter* index, which represents uncorrected volume, as observed by the *meter* reader when physically undertaking a *meter reading*.

“index type” means an indicator showing whether a *meter* reads in metric or imperial units.

{Note: For the conversion between metric and imperial, refer to [ruleclause 6](#).}

“indirect damage” suffered by a person means:

- (a) any consequential loss or damage however caused, including any:
 - (i) loss of (or loss of anticipated) use, production, revenue, income, profits, business and savings; or
 - (ii) loss or damage due to business interruption,

whether or not the consequential loss or damage was foreseeable; and

- (b) any liability of the person to any other person, or any claim, demand, action or proceeding brought against the person by any other person, and any costs or expenses in connection with the claim, demand, action or proceeding.

“information system” means equipment, hardware and software of a person required to comply with these [rules-procedures](#) which is used to perform the person’s obligations under these [rules-procedures](#).

“injecting” means the process of delivering gas out of a *pipeline*, through a *gate point* and into a *sub-network*.

{Note: This process will usually be termed “delivery” by the *pipeline operator*, and “receipt” by the *network operator*.}

“instantaneous flow rate” has the meaning given to it in [ruleclause 217A](#).

“interest rate” means Westpac Banking Corporation’s Reference Lending Rate as published from time to time in a newspaper having national circulation.

“interested person” means, in relation to a matter:

- (a) a government representative; or
- (b) *Economic Regulation Authority*; or
- (c) any other person that (as applicable) the *Economic Regulation Authority*, considers has a legitimate interest in the matter or should be consulted in relation to the matter.

“interval meter” means a *meter* which:

- (a) is read by means of *telemetry*; and
- (b) aggregates the flow of gas across time, and records that flow for each hour.

“interval-metered”, in relation to a *delivery point*, means that gas deliveries at the *delivery point* are measured by an *interval meter*.

“invoice period” means:

- (a) in relation to the *service fee* — the period of 12 calendar months; and
- (b) in relation to the *market share charge* — the period of a calendar month.

~~“jurisdiction” means Western Australia.~~

“last date of modification”, for a *delivery point*, means the date the last update to any item of ~~REMC~~*AEMO* ~~standing data~~ became effective in the ~~REMC~~*AEMO* registry.

“last valid day” has the meaning given to it in ~~rule~~*clause* 223.

“law” means all:

- (a) written and unwritten laws of the Commonwealth, of Western Australia and of any other State, Territory or foreign country having jurisdiction over the subject matter of these ~~rules~~*procedures*; and
- (b) judgments, determinations, decisions, rulings, directions, notices, regulations, by-laws, statutory instruments, Codes of Practice, Australian Standards or orders given or made under any of those laws or by any government agency or authority.

“like day substitution methodology” has the meaning given to that term in 0 of Appendix 2.

“listing request” means a request by a *shipper* or a *swing service provider* to ~~REMC~~*AEMO* to list it in the *shipper register* in respect of a *user* and a *sub-network* from a specified *effective date*.

“loan swing service” means a service whereby a *swing service provider* permits a *user* to ‘borrow’ (or notionally withdraw) gas from a *pipeline* at a *gate point*, on the terms of a *swing service contract*. To avoid doubt, the provision of a loan swing service by a *swing service provider* involves the supply of a gas capacity service and it does not involve the physical supply of gas.

“maintain” includes (as necessary and as applicable) calibrate, test, verify, renew, replace or update.

“marginal clearing price for the total of all adjusted socialised amounts of swing service” or **“MCP(ANUSA)”** has the meaning given to it under ~~rule~~*clause* 288.

“market responsive flow control” in relation to a *gate point* means a control system designed to control the *gate point* flow rate such that:

- within normal equipment tolerances, by following the *pipeline profiled forecast* for that *gate point* determined by ~~REMC~~*AEMO* under ~~rule~~*clause* 207; and
- the *gate point* discharge pressure is limited to the maximum allowable operating pressure of the *sub-network*.

“market responsive flow control pipeline” means a *pipeline* for which it is intended that the *injections* of gas on a day follow a *pipeline profile forecast* provided by a third party.

“market share”, with respect to a *user*, who is a [Scheme participant](#)~~REMGCo member~~, at a particular time, means the market share of the *user* determined on the basis of the percentage of *commissioned* and *decommissioned delivery points* for which the *user* is recorded in the ~~REMGCo~~[AEMO](#) registry as the *current user* in Western Australia as compared to the total number of *commissioned* and *decommissioned delivery points* recorded in the ~~REMGCo~~[AEMO](#) registry for Western Australia on the last day of each month.

“market share charge” means a variable fee set by ~~REMGCo~~[AEMO](#), having regard to the principles set out in [rule clause](#) 362A(1) and being based upon *market share*, imposed upon each *user*, who is a [Scheme participant](#)~~REMGCo member~~.

“MCP(TSS(BS))” means the *marginal clearing price* for the total amount of *swing service* to be procured through the applicable *bid stack*.

“meter” means a meter used to measure the amount of gas supplied to a *delivery point* and includes any associated regulators, pipes, fittings, components, equipment or instruments.

{Note: These meters are sometimes referred to as “master meters” or “custody transfer meters”, and are not “submeters”.}

“meter number” means the unique alphanumeric identifier assigned to a meter by the *network operator* or *meter manufacturer* ~~within each jurisdiction~~.

“meter reading” means reading a *meter* physically or by *telemetry*.

“meter reading data” means the data actually obtained by reading a *meter* physically or by *telemetry*, and includes:

- (a) for a *basic meter* — the *index reading*; and
- (b) for an *interval meter* — the *corrected volume* of gas delivered in each hour, and such other data as is required for *verification* by a *network operator* or provided by the *meter* in normal circumstances.

{Note: The data obtained from different types of *interval meter* varies.}

“meter reading route” means a route specified in a *meter reading schedule*.

“meter reading schedule” means a schedule provided by a *network operator* to a *user* under [rule clause](#) 144(1), as amended under [rule clause](#) 145.

“meter standing data”, in relation to a *delivery point*, means the information set out in [rule clause](#) 60(1)(a) to [rule clause](#) 60(1)(j) for the *delivery point*.

“meter type” means whether a *meter* is a *basic meter* or an *interval meter*.

“**metering data**” means the information provided by a *network operator* to a *current user* under [rule clause 160](#), to an *incoming user* under [rule clause 161](#) and to ~~REMC~~[AEMO](#) under [rule clause 162](#) for the applicable *meter type*.

“**metering period**”, in relation to a *meter reading*, means the period between the current *meter reading* and the previous *meter reading*.

{Example: For an *interval meter* the *meter reading period* will usually be 1 *gas day*, and for a *basic meter* it will usually be approximately 1 month or approximately 3 months.}

“**MIRN**” means the unique 10-digit numeric meter installation registration number that a *network operator* assigns to each *delivery point* in its *GDS*.

“**MIRN checksum**” means the single digit numeric identifier that is calculated under Appendix 3 for a *MIRN*.

“**MIRN database**” means a database maintained by each *network operator* under [rule clause 58](#) containing the *MIRN standing data* and information regarding each *delivery point* that is located in the *network operator’s GDS*.

“**MIRN discovery request**” means a *notice* under [rule clause 74\(2\)](#) from a *user* to a *network operator*, requesting the *network operator* to provide the *MIRN standing data* for a *delivery point*.

“**MIRN standing data**”, in relation to a *delivery point*, means the information set out in ~~rules~~ [clauses 58\(a\)](#) to [58\(g\)](#) for the *delivery point*.

“**MIRN status**” means *commissioned*, *decommissioned* or *deregistered* (as applicable).

{Note: The following table shows each *MIRN status* value and the corresponding *meter status*:

MIRN status	Meter status
Commissioned	commissioned and not disconnected or permanently removed (including after the delivery point has been reconnected)
Decommissioned	disconnected (temporary)
Deregistered	permanently removed

“**miscellaneous reconciliation amount**” or “**MRA**”, for a *user*, is a quantity of gas and is calculated under [rule clause 239](#).

“**monthly interval-meter load percentage**” or “**MILP**” has the meaning given to it in [rule clause 184A](#).

“**move in**” is defined in [rule clause 78](#).

“**MSD database**” means a database *maintained* by each *network operator* under [rule clause 60](#) containing at least the *meter standing data* for each *delivery point* that is located in the *network operator’s GDS*.

“**multi-shipper allocation agreement**” has the meaning given to it under [rule clause 302](#).

“multi-shipper allocation report” has the meaning given to it in [rule clause 302](#).

“National Gas Access (Western Australia) Law” has the meaning given to it in the *National Gas Access (WA) Act 2009* as amended from time to time.

{Note: At the date of amendment of these [Rules procedures](#), “National Gas Access (Western Australia) Law” means the Western Australian National Gas Access Law text as applying as a law of Western Australia (section 7 *National Gas Access (WA) Act 2009*). The definition of “Western Australian National Gas Access Law text” is “the text that results from modifying the National Gas Law, as set out in the South Australian Act Schedule for the time being in force, to give effect to section 7A(3) and (4) and Schedule 1” (section 7 *National Gas Access (WA) Act 2009*).

The *National Gas Access (WA) Act 2009* thus applies the *National Gas (South Australia) Act 2008* of South Australia as amended from time to time with particular amendments relevant to the Western Australian National Gas Access Law text.)

“negative assurance audit” means a review with the objective of enabling the *auditor* to state whether, on the basis of review ~~procedures~~[procedures](#) that do not provide all the evidence that would be required in a standard audit, anything has come to the *auditor’s* attention that indicates (as applicable):

- (a) a *user’s* non-compliance with the ~~rules~~[procedures](#) set out under [rule clause 350](#); or
- (b) ~~REMC~~[AEMO](#)’s non-compliance with the ~~rules~~[procedures](#) set out under [rule clause 351\(1\)](#)~~351(1)~~[351\(1\)](#); or
- (c) a *network operator’s* non-compliance with the ~~rules~~[procedures](#) set out under [rule clause 352\(1\)](#).

“network” means a distribution pipeline within the meaning of the *National Gas Access (Western Australia) Law*.

“network information system” means the equipment, hardware and software (including the *network operator databases*) of the *network operator* used for interconnection to the ~~REMC~~[AEMO](#) information system.

“network operator” means a *person* who holds a *distribution licence*.

“new connection” means the connection of a new *delivery point* to a *sub-network*.

“new connection confirmation notice” means a *notice* under [rule clause 66](#) from a *network operator* to ~~REMC~~[AEMO](#) advising ~~REMC~~[AEMO](#) that a *delivery point* has been commissioned.

“nomination”, has the meaning given to that term in [rule clause 194](#).

“nomination estimation methodology” has the meaning given to that term in Sub-Appendix 2.3 of Appendix 2.

“normalisation factor” for a *basic-metered delivery point* is calculated under [rule clause 225](#).

“notice” means a *notice* given under these ~~rules~~[procedures](#) in accordance with Part 1.3.

“open”, in relation to a *transaction* or a *notice*, means that the *transaction* or *notice* has been lodged with *REMCeAEMO* or a *network operator* (as applicable), but has not been *cancelled* or completed.

“original net system load” has the meaning given to it in *ruleclause* 232(2).

“park swing service” means a service whereby a *swing service provider* permits a *user* to ‘park’ (or notionally store) gas in a *pipeline* at a *gate point*, on the terms of a *swing service contract*. To avoid doubt, the provision of a park swing service by a *swing service provider* involves the supply of a gas capacity service and it does not involve the physical supply of gas.

“participant” means each of a *user* and a *network operator*.

“party” has the meaning given to that term in *ruleclause* 337(1).

“pending” means:

- (a) in relation to an *open requested transfer* — that *REMCeAEMO* has permitted the *requested transfer* under *ruleclause* 98 or 100, as the case may be, and is waiting for the *network operator* to provide *metering data* that contains an *actual value*; and
- (b) in relation to an *open error correction transaction* — that *REMCeAEMO* has permitted an *error correction notice* in respect of an incorrect *transfer* under *ruleclause* 46(1).

“permanent removal” means to permanently preclude gas being supplied at a *delivery point*.

{Note: An action to *permanently remove a delivery point* can include the removal of the *meter* and the service pipe. The *user* ceases to be responsible for the *delivery point* upon *permanent removal*.}

“permanent removal confirmation notice” means a *notice* under *ruleclause* 128 from a *network operator* to *REMCeAEMO* advising *REMCeAEMO* that a *delivery point* has been *permanently removed*.

“permanent removal request” means a *notice* under *ruleclause* 124(4) from a *user* to a *network operator* requesting the *network operator* to *permanently remove a delivery point* specified in the *notice*.

“permitted down time” has the meaning given to that term in the *FRC Hub Operational Terms and Conditions*.

“physical gate point” means a point defined as such in the relevant *pipeline Access Arrangement* and in any event is a point on the *pipeline* at which gas is withdrawn from the *pipeline* for *injection* into the *GDS*.

“physical gate point metering data” for a *physical gate point* means any two of the three data set out under *ruleclause* 151(1).

“pipeline” means a pipeline for the transmission of gas to a *network*.

“**pipeline corrected injections**” has the meaning given to it under [rule clause 220\(2\)](#).

“**pipeline injections**” has the meaning given to it under [rule clause 220\(1\)](#).

“**pipeline operator**”, in relation to a *GDS*, means the operator of a *pipeline* which is interconnected with the *GDS*.

“**prescribed person**” means a person who is a “prescribed person” under section 11ZOD(1)(b) of the *Energy Coordination Act 1994*.

{Note: Under the *Energy Coordination (Retail Market Scheme) Regulations 2004*, which were gazetted in Western Australia on 28 May 2004, the persons prescribed under section 11ZOD(1)(b) of the *Energy Coordination Act 1994* are a *swing service provider*, a *shipper* and a *self-contracting user*.}

“**pressure control**” in relation to a *gate point* means a control system designed to control the *gate point* flow rate such that the *gate point* outlet pressure is maintained within normal equipment tolerances of a set pressure.

“**pressure correction factor**” means a numerical factor (reflecting pressure, temperature and elevation) which is held in the *MSD database* for a *meter* and can be used to convert an *uncorrected volume* reading from the *meter* into a *corrected volume* at “metric standard conditions” being a pressure of 101.325 kPa and a temperature of 15 °C.

“**previous user**” means a *user*, who was recorded in the [REMCoAEMO](#) registry as the *current user*, immediately prior to the present *current user*.

~~“**prior day**” has the meaning given to it under rule 218(4).~~

~~“**prior day data**” has the meaning given to it under rule 218(4)(a).~~

“**proceeding**” means the process followed by the *compliance panel* in making a determination in relation to a *referral*.

“**procedures**” means the *Retail Market Procedures (WA)* – this document.

“**procedure change committee**” means the committee established under [clause 383](#).

“**procedure change outline**” means a report under [clause 378B](#).

“**procedure change request**” means a *notice* under [clause 378\(2\)](#) from a *participant, pipeline operator, prescribed person or interested person* to *AEMO* requesting amendment to a *procedure* specified in the request.

“**procedure change withdrawal request**” means a *notice* under [clause 378A\(2\)](#) requesting the withdrawal of a *procedure change request* from the *procedure change process* in [Chapter 9](#).

“**process time**” means the time and date a *notice* lodged with [REMCoAEMO](#) was processed by [REMCoAEMO](#).

“**procurement confirmation**” has the meaning given to it in [rule clause 268](#).

“**procurement instruction**” has the meaning given to it in [rule clause 267\(1\)](#).

“**procurement request**” has the meaning given to it under [rule clause 267\(3\)](#).

“**profile**” means a profile provided by [REMCeAEMO](#) under [rule clause 176\(1\)\(a\)\(i\)](#) or determined by [REMCeAEMO](#) under [rule clause 199\(b\)](#).

“**profiled pipeline nominations**” has the meaning given in [rule clause 199\(a\)](#).

“**profiled sub-network nominations**” has the meaning given in [rule clause 199\(b\)](#).

“**promptly**”, in relation to a *notice*, is defined in [rule clause 11\(2\)](#).

“**proponent**” means a person who lodges a [rule-procedure change request](#) under [rule clause 378\(1\)](#).

~~“**proposed rule change**” means a proposed amendment to the rules specified in a rule change request.~~

“**readiness certificate**” means the certificate issued by [REMCeAEMO](#) upon a person required to comply with these [rules-procedures](#) satisfaction of the *readiness criteria*.

“**readiness criteria**” means the criteria set out in the [REMCeAEMO](#) *specification pack*.

“**readiness testing process**” means the testing process set out in the *readiness criteria*.

“**reading day number**” means a number recorded in a *network operator’s meter reading schedule* to denote which days during the calendar year a *meter* will be read by a *network operator*, and the *meter* reading frequency.

“**reasonable and prudent person**” means a person who exercises that degree of reasonableness, diligence, prudence and foresight that would reasonably and ordinarily be exercised by a skilled and experienced person doing a similar thing in similar circumstances and conditions in accordance with applicable *laws* and standards that are at least equivalent to practices and standards generally accepted in the gas industry in Australia.

“**recalculated ratio**” means the ratio recalculated under [rule clause 176\(4\)\(a\)](#).

“**recipient users**” has the meaning given to it under [rule clause 300A](#).

“**recipient**” means any or all of [REMCeAEMO](#) and each *participant, pipeline operator and prescribed person*.

“**recommendation report**” means a report under [rule clause 380](#) from the [rule-procedure change committee](#) to [REMCeAEMO](#).

“**recommended rule-procedure change**” means an amendment to the [rules-procedures as determined by AEMO](#)~~that is recommended by the rule change committee~~ under [rule clause 396A](#), [rule clause 397](#) or [rule clause 398\(5\)](#)~~-398(6)~~.

“reconnected”, in relation to a *disconnected delivery point*, means that the *delivery point*’s ability to flow gas has been restored, although there may be instances where the *meter* valve is left closed.

{Note: The *meter* valve may be left closed due to a “drop on supply”, i.e. the consumer’s installation was unable to hold pressure.}

“reconnection notice” means a *notice* under [rule clause 117\(3\)](#) from a *user* to a *network operator* requesting *reconnection* of a *delivery point* specified in the *notice*.

“reconnection confirmation notice” means a *notice* under [rule clause 120](#) from a *network operator* to [REMCo AEMO](#) advising [REMCo AEMO](#) that a *delivery point* has been *reconnected*.

“referral” means a matter referred to the *compliance panel* under [rule clause rule 329\(1\)\(a\)\(ii\)](#) or [rule clause 329\(1\)\(b\)\(iii\)](#) or [rule clause 331\(2\)](#).

“registration fee” means, subject to [rule clause 362A](#), a fixed charge not exceeding \$10,000, imposed upon each [Scheme participant](#) ~~REMCo member~~ for becoming a [Scheme participant](#) ~~member of REMCo~~.

“related body corporate” has the same meaning as it has under section 50 of the *Corporations Act 2001* (Cth).

{Note: At the time these [rules](#) [procedures](#) commenced, that definition was “Where a body corporate is:

- (a) a holding company of another body corporate;
- (b) a subsidiary of another body corporate; or
- (c) a subsidiary of a holding company of another body corporate;

the first mentioned body and the other body are related to each other.”}

“related shipper” in relation to a *user* for a *sub-network*, means a *shipper* that, from time to time, *injects* gas into the *sub-network* on behalf of the *user*.

~~**“REMCo”** means the Retail Energy Market Company Limited (ACN 103 318 556).~~

~~**“REMCo Constitution”** means the constitution governing REMCo.~~

~~**“REMCo information system”** means REMCo’s equipment, hardware and software (including the REMCo registry) of REMCo used to perform its obligations under these rules.~~

~~**“REMCo member”** means a person for the time admitted to membership of REMCo under the REMCo Constitution.~~

~~**“REMCo registry”** means the database maintained by REMCo under rule 19(1), containing at least the REMCo standing data and the information referred to in rule 22(4).~~

{Note: The information referred to in rule 22(1) relates to GBO identifications.}

~~**“REMCo Specification Pack”** means the suite of documents, as approved by REMCo, to support the operation of these rules.~~

~~“REMCo standing data”, in relation to a delivery point, means the information set out in rule 20(1) for the delivery point.~~

“removal request” means a notice by a pipeline operator to REMCoAEMO requesting REMCoAEMO to remove the swing service provider or shipper from the shipper register.

“renomination” has the meaning given to that term in ruleclause 194.

“repay” in relation to swing service means:

- (a) for loan swing service – to cause the gas which was notionally borrowed from a pipeline under the loan swing service to be repaid; and
- (b) for park swing service – to cause the gas which was notionally stored in the pipeline under the park swing service to be retrieved.

To avoid doubt, the repayment of swing service does not involve the physical supply of gas.

“requested transfer” means a transfer requested for a delivery point by the lodgement of a transfer request.

“revised allocation instruction” means an instruction from a user that:

- (a) specifies how the user’s gas injections into a sub-network are to be allocated between shippers injecting gas into the sub-network on the user’s behalf for a gas day; and
- (b) is provided by a user in substitution for:
 - (i) an allocation instruction for the gas day; or
 - (ii) an allocation made by REMCoAEMO under ruleclause 192(2) for the gas day.

“revised estimate of unaccounted for gas” is calculated under ruleclause 223(2)(b).

“revised net system load” has the meaning given to it in ruleclause 232(2).

“revised user’s unaccounted for gas” means the amount calculated under ruleclause 223.

“ROLR”, in relation to a delivery point, means the supplier of last resort as defined in the Energy Coordination Act 1994 (WA).

“ROLR administrator” means the Economic Regulation Authority.

“ROLR event user” means the User specified on the notice received by REMCoAEMO under ruleclause 104(4) from the ROLR administrator in which the ROLR administrator-administrator specifies the ROLR event user.

“ROLR fee” means the last resort supply fee specified in the last resort supply plan.

“ROLR scheme” means:

- (a) for the initial retailer of last resort, the supplier of last resort designated by the *Economic Regulation Authority*, and the last resort supply plan approved by the *Economic Regulation Authority* under section 60 of the *Energy Legislation Amendment Act 2003* (WA); and
- (b) for subsequent retailers of last resort, the supplier of last resort designated by the *Economic Regulation Authority*, and the last resort supply plan approved by the *Economic Regulation Authority* under section 11ZAG of the *Energy Coordination Act 1994* (WA).

“ROLR transfer day” means the *gas day* which commences at the *ROLR transfer time*.

“ROLR transfer time” means the time (which must be the start of a *gas day*) on which *delivery points* are transferred under [rule clause](#) 104 from the *ROLR event user* to the *ROLR*.

~~“rule 192(2) notice” has the meaning given to it in rule 192(2).~~

~~“rule change committee” means the committee established under rule 383.~~

~~“rule change outline” means a report under rule 378B.~~

~~“rule change request” means a notice under rule 378(2) from a participant, pipeline operator, prescribed person or interested person to REMCo requesting amendment to a rule specified in the request.~~

~~“rule change withdrawal request” means a notice under rule 378A(2) requesting the withdrawal of a rule change request from the rule change process in Chapter 9.~~

“SBRA” has the meaning given to it in [Rule clause](#) 233.

“scheduled meter reading” means a *meter reading* of a *delivery point* that is scheduled to occur under the *network operator’s meter reading schedule*.

“Scheme participant” has the meaning given to it in section 1.1 the [WA Gas Retail Market Agreement](#).

“secondary recipient” means a person to whom a *recipient* discloses information.

“self-contracting user” means a *user* that withdraws gas from a *sub-network* for the sole purpose of supply to a *customer* that is either itself or a *related body corporate*.

“service fee” means, subject to [rule clause](#) 362A, the fixed charge not exceeding \$15,000 per annum, for the ongoing operating costs of ~~REMCo~~[AEMO](#) imposed upon each ~~Scheme participant~~[REMCo member](#).

“service order reference” means the unique identifier used to identify a *user’s* service order as either:

- (a) specified by a *user* under [rule clause 105\(3\)\(b\)\(i\)](#), [117\(3\)\(b\)](#) or [125\(4\)\(b\)](#); or
- (b) assigned by [REMCoAEMO](#) under [rule clause 81\(5\)](#).

“shipper” means a person that has a gas transportation agreement with a *pipeline operator* for the delivery of gas at a *gate point* to a *user*, and is not acting in its capacity as a *swing service provider* if it is also a *swing service provider*.

{Note: A person who is both a *shipper* and a *swing service provider* will have separate *GBO identifications* for each role}

“shipper’s amount” has the meaning given to it under [rule clause 249](#).

“shipper register” means the register of *shippers* and *swing service providers* established under [rule clause 173](#).

“shipper’s deemed injection” is calculated under [rule clause 246](#).

“small use customer”, has the meaning given to it under section 3 of the *Energy Coordination Act 1994*.

{Note: At the time these [rules-procedures](#) commenced, that definition was “...means a customer whose consumption of gas is less than 1 terajoule per year”.}

“special meter reading” means a *meter reading* undertaken other than under a *meter reading schedule*.

“specified price index” means the Consumer Price Index (All Groups, Eight Capital City) published by the Australian Bureau of Statistics or if that index is updated, that updated index converted by appropriate arithmetical adjustment to correspond to the previous reference base.

“SSP” means a *swing service provider*.

“SSPOLR” means a *swing service provider of last resort*.

“SSPOLR price” for a SSPOLR for a *pipeline* for a *sub-network* for a *gas day* for *park swing service* or *loan swing service*, as applicable, is the price specified for the *swing service* in the applicable SSPUD.

“SSPOLRUD” means the *Swing Service Provider of Last Resort Umbrella Deed* between [REMCoAEMO](#) and a SSPOLR for a *sub-network* on the terms and conditions set out in Appendix 8 or agreed between [REMCoAEMO](#) and a SSPOLR for a *sub-network*.

“SSPUD” means the *Swing Service Provision Umbrella Deed* between [REMCoAEMO](#) and an SSP on the terms and conditions set out in Appendix 7.

“standing nomination” has the meaning given to it in [rule clause 195](#).

“**standing SSPOLR bid**” means the *bid* deemed by [rule clause 285\(2\)](#) to have been lodged by a *SSPOLR*.

“**start of business**” means 0800 hours ~~in the relevant jurisdiction~~.

“**State**” means the State of Western Australia.

“**status report**” has the meaning given to it in [rule clause 269\(2\)](#).

“**street/suburb combination**” means a combination of a:

- (a) street name; and
{For example: “Rundle” or “Murray”.
- (b) street type code; and
{For example: “St”, “Rd”, “Ave”, or “Blvd”.
- (c) street suffix; and
{For example: “N”, “S”, “E” or “W”.
- (d) the suburb, place or locality in which the street is located; and
{For example: “Adelaide”, “Mosman Park” or “Kippa-ring”.
- (e) *State/Territory*;
{For example: “WA”.
- (f) post code;
- (g) *sub-network*; and
{For example: “Metro North” or “Metro South”.
- (h) *gas zone code*.
{For example: “1106” or “1107”.

“**street/suburb table**” means a table of *street/suburb combinations* extracted from a *MIRN database* under [rule clause 59](#).

“**sub-network**” means ~~:-~~

a part of a *GDS* which a *network operator* identifies under [rule clause 15](#) as a sub-network for contractual and operational purposes and which is listed in Appendix 1 ~~:-~~
~~or~~

“**subscriber**” means a person designated as such under [rule clause 277](#).

“**substituted value**” means a value designated as such under [rule clause 157](#).

“**summed basic-meter reconciliation amount**”, for a *user*, is a quantity of gas and is calculated under [rule clause 233](#).

“**surplus**” has the meaning given to it under [rule clause 271](#).

“**swing base amount**” has the meaning given to it in [rule clause 259](#).

“**swing error**” or “**SE**” has the meaning given to it under [rule clause 260\(1\)](#).

“**swing service**” in a *pipeline* for a *sub-network* for a *gas day*, means *park swing service* or *loan swing service* and is calculated under Part 5.10.

{Note: *Swing service* can be referred to as the *pipeline* or a *swing service provider* providing a “**park**” or “**loan**” service for the amount of *swing service*, but the use of these terms does not require or suggest that the *swing service* is covered by the *pipeline*’s formal Park and Loan services.}

“**swing service amount**” or “**SSA**” has the meaning given to it in [rule clause 295\(2\)](#).

“**swing service causation compensation payment**” has the meaning given to it in [rule clause 300](#).

“**swing service contract**” means a contract between a *swing service provider* and a *user* which arises under a *SSPUD* when ~~REMC~~[AEMO](#) issues a *contract note* under [rule clause 296](#).

“**swing service fee**” or “**FSS**” has the meaning given to it in [rule clause 295\(1\)](#).

“**swing service provider**” means, for a *gate point*, a person who has a *GBO identification* as a *swing service provider* and either:

- (a) has a *transmission contract* in the *pipeline*; or
- (b) has an agreement with a *pipeline operator* for the provision of either or both of *park swing service* and *loan swing service* in the *pipeline* at the *gate point*.

“**swing service provider of last resort umbrella deed**” or “**SSPOLRUD**” has the meaning given to it under [rule clause 280\(1\)](#).

“**swing service provision umbrella deed**” or “**SSPUD**” has the meaning given to it under [rule clause 279](#).

“**swing service repayment quantity**” or “**SRQ**” has the meaning given to it under [rule clause 299](#).

“**system down time**” has the meaning given to it in [rule clause 304](#).

“**TANUSA**” means the total of all *users’ adjusted non-user-specific amounts* for the *pipeline* for the *gas day* under [rule clause 273](#).

“**telemetry**” means the communication equipment used for transmission of data collected from *meters* to a *network operator’s* central data management system and typically encompasses modems, telecom landline (which may be dedicated or part of the PSTN network) or radio transceivers (which may be in the form of a dedicated radio network, GSM, GPRS or satellite telephony).

“**total basic-meter reconciliation amount**” or “**TBRA**”, for a *user*, is a quantity of gas and is calculated under [rule clause 235](#).

“total basic-meter withdrawal reconciliation amount” or **“TBWRA”**, for a *user*, is a quantity of gas and is calculated under [ruleclause 237](#).

“total corrected injections” for a *sub-network* is calculated under [ruleclause 221](#).

“total delta basic-meter reconciliation amount”, for a *user*, is a quantity of gas and is calculated under [ruleclause 240\(1\)](#).

“total delta pipeline injection” or **“ Δ PI”**, for a *gate point*, is a quantity of gas and is calculated under [ruleclause 238\(4\)](#).

“total interval-meter reconciliation amount” or **“TIRA”**, for a *user*, is a quantity of gas and is calculated under [ruleclause 236](#).

“total non-user-specific swing service cost” has the meaning given to it under [ruleclause 290](#).

“total (pre-procurement) swing service” has the meaning given to it under [ruleclause 262](#).

“total reconciliation amount”, for a *user*, is a quantity of gas and is calculated under [ruleclause 242](#).

“total swing service cost” is calculated under [ruleclause 289](#).

“total user-specific swing service cost” is calculated under [ruleclause 291](#).

“transaction” means the process initiated by the lodgement of a *notice* with [REMCeAEMO](#) under these [rules-procedures](#), which if completed, will result in an amendment to the [REMCeAEMO](#) *standing data*.

“transfer” means the transfer under these [rules-procedures](#) of the responsibility for gas delivery to a *delivery point* from the *current user* to an *incoming user*.

{Note: For the purposes of these [rules-procedures](#) a *transfer* is effected by recording the *incoming user* as the *current user* in the [REMCeAEMO](#) registry — see [ruleclause 52\(a\)](#).

From a *customer’s* perspective, the effect of such a *transfer* will be to *transfer* the *customer* from the *current user* to the *incoming user*;}.

“transfer confirmation” means a *notice* under [ruleclause 102](#) that the *transfer* of the *delivery point* specified in the *notice* has occurred.

“transfer day” means the *gas day* commencing at the *transfer time*.

“transfer objection” means (as applicable) a *notice* under [ruleclause 86\(2\)](#) from a *network operator* or under [ruleclause 87\(3\)](#) from a *ROLR* objecting to a *requested transfer*.

“transfer objection resolution period” means (as applicable):

- (a) if a *transfer objection* has been lodged under [ruleclause 86\(1\)](#) or [ruleclause 87\(2\)](#) — the the period ending when the time allowed for lodging a *transfer objection withdrawal notice* under [ruleclause 91\(1\)](#) expires; or

- (b) if a *transfer objection* has not been lodged under [rule clause 86\(1\)](#) or [rule clause 87\(2\)](#) – the period ending when the time allowed for lodging a *transfer objection* under [rule clause 86\(1\)](#) or [rule clause 87\(2\)](#) (as applicable) expires.

“transfer objection withdrawal notice” means a *notice* under [rule clause 91\(2\)](#) from a *participant* to [REMCeAEMO](#) withdrawing an *open transfer objection* for a *delivery point* specified in the *notice*.

“transfer request” means a *notice* under [rule clause 81\(1\)](#) from an *incoming user* to [REMCeAEMO](#) requesting [REMCeAEMO](#) to *transfer* gas deliveries at a *delivery point* specified in the request to the *incoming user*.

“transfer time” means the start of the *gas day*.

- (a) during which a *meter reading* that generates an *actual value* for a *basic-metered delivery point* for which a *transfer* is *pending*, was undertaken; or
- (b) that an *incoming user* has specified as the *earliest transfer day* for an *interval-metered delivery point*.

“transfer withdrawal notice” means a *notice* under [rule clause 95\(4\)](#) from an *incoming user* to [REMCeAEMO](#) withdrawing an *open transfer request* for a *delivery point* specified in the *notice*.

“transferring customer” means the *customer* located at the *delivery point* specified in a *transfer request*.

“transmission contract” means a contract between a *pipeline operator* and *shipper* for the transmission of gas through a *pipeline*.

“TSS(BS)” means the total amount of *swing service* to be procured through the applicable *bid stack* for the *pipeline* for the *gas day*, calculated under [rule clause 276](#).

“TSS(BS) bid” has the meaning given to it under [rule clause 288A](#).

“uncovered sub-network” means a *sub-network* which is not:

- (a) a “covered pipeline” as defined in the *National Gas Access (Western Australia) Law*; or
- (b) subject to any other third party access regime under a *law* or under an instrument having effect under a *law*.

“user” means an entity that has a *haulage contract* for the transport of gas through a *sub-network* under these [rules procedures](#).

“user’s amount” has the meaning given to it in [rule clause 196](#).

“user-specific swing error” has the meaning given to it in [rule clause 261](#).

“user’s basic-metered withdrawals” has the meaning given to it under [rule clause 230](#).

“**user’s deemed withdrawals**” or “**UDW**” for a *user* for a *pipeline* for a *sub-network* for a *gas day* is calculated under [rule clause 248](#).

“**user’s estimated basic-metered withdrawals**” or “**UEBW**” is calculated under [rule clause 227](#).

“**user’s estimated total withdrawals**” for a *user* for a *sub-network* for a *gas day* is calculated under [rule clause 228](#).

“**user’s gas injections**” has the meaning as given to it in [rule clause 187](#).

“**user’s interval-metered withdrawals**” or “**UIW**” is calculated under [rule clause 222](#).

“**user’s pipeline nomination amount**” for a *user* for a *pipeline* for a *sub-network* for a *gas day* is calculated under [rule clause 197](#).

“**user’s (pre-procurement) socialised swing service**” has the meaning given to it in [rule clause 266](#).

“**user’s reconciliation adjustment amount**”, for a *user*, is a quantity of gas and is calculated under [rule clause 243\(1\)](#).

“**user’s required withdrawals**” means for a *user* for a *gas day* the sum of:

- UEBW;
- UIW;
- UUAFG; and
- URAA

less any part of the URAA that relates to a *gate point adjustment amount*.

“**user’s total nomination amount**” for a *user* for a *pipeline* for a *sub-network* for a *gas day* is calculated under [rule clause 198](#).

“**user’s total (pre-procurement) swing service**” has the meaning given to it in [rule clause 262](#).

“**user’s unaccounted for gas reconciliation amount**” or “**UUAFGRA**”, for a *user*, is a quantity of gas and is calculated under [rule clause 241](#).

“**user’s unaccounted for gas reconciliation adjustment amount**”, for a *user* for a *sub-network* for a *gas day*, is calculated under [Rule Clause 243\(3\)](#).

“**UUAFG**” is defined in [rule clause 229\(2\)](#).

“**validated procurement request**” has the meaning given to it in [rule clause 269](#).

“**verification**” means the process undertaken by a *network operator* in accordance with the verification guidelines contained in ~~sections 0 and 0 of~~ Appendix 2, to ensure the accuracy of the *metering data*.

“WA Gas Retail Market Agreement” means the WA Gas Retail Market Agreement between AEMO and Scheme Participants for the purposes of section 11ZOF(1)(a) of the Energy Coordination Act 1994.

3. Interpretation

(1) In these ~~rules~~procedures, unless the contrary intention appears:

- (a) a reference to:
 - (i) one gender includes any other gender; and
 - (ii) the singular includes the plural and the plural includes the singular; and
 - (iii) an officer or body of persons includes any other officer or body for the time being exercising the powers or performing the functions of that officer or body; and
 - (iv) these ~~rules~~procedures or any other instrument includes any variation or replacement of any of them; and
 - (v) a reference to a *law* includes any amendment or re-enactment of it that is for the time being in force, and includes all *laws* made under it from time to time; and
 - (vi) any statute includes that statute as amended or re-enacted from time to time and any statute enacted in replacement of it; and
 - (vii) **“writing”** or **“written”** includes communication by facsimile and any other electronic means or format in accordance with these ~~rules~~procedures and the ~~REMC~~AEMO Specification Pack; and
 - (viii) **“under”** includes “by”, “by virtue of”, “pursuant to” and “in accordance with”; and
 - (ix) **“day”** means a calendar day; and
 - (x) a quantity of gas is to an energy quantity (expressed in whole MJ), rather than a volumetric or other quantity; and
 - (xi) **“person”** includes a public body, company, or association or body of persons, corporate or unincorporated; and
 - (xii) a person includes a reference to the person's personal representatives, executors, administrators, successors and permitted assigns; and
- (b) all monetary amounts are in Australian dollars and are exclusive of GST; and
- (c) headings are for convenience only and do not affect the interpretation, or form part of, these ~~rules~~procedures; and
- (d) **“copy”** includes a facsimile copy, photocopy or electronic copy; and

- (e) “including” and similar expressions are not words of limitation; and
- (f) where a word or expression is given a particular meaning, other parts of speech and grammatical forms of that words or expression have a corresponding meaning; and
- (g) where italic typeface has been applied to some words and expressions, it is solely to indicate that those words or phrases may be defined in [rule clause 2](#) or elsewhere, and in interpreting these [rules procedures](#), the fact that italic typeface has or has not been applied to a word or expression is to be disregarded; and
- (h) where information in these [rules procedures](#) is set out in braces (namely “{” and “}”), whether or not preceded by the expression “Note”, “Outline” or “Example”, the information, and the information contained in the Introduction to these [rules procedures](#):
 - (i) is provided for information only and does not form part of these [rules procedures](#); and
 - (ii) is to be disregarded in interpreting these [rules procedures](#); and
 - (iii) might not reflect amendments to these [rules procedures](#).

(2) In these [rules procedures](#):

- (a) a reference to a *meter reading* “of a *delivery point*” is a reference to a *meter reading* of the *meter* at the *delivery point*;
- (b) a reference to the *current user* “for” a *delivery point* is a reference to the *user* who is recorded in the [REMG](#)[AEMO](#) registry as the *user* responsible for gas delivery to the *delivery point* and
- (c) a reference to the *network operator* “for” a *delivery point* is a reference to the *network operator* of the *sub-network* in which the *delivery point* is located;
- (d) when discussing a *delivery point*, a reference to a *MIRN* is a reference to the *MIRN* for the *delivery point*;
- (e) when discussing a *MIRN*, a reference to a *delivery point* is a reference to the *delivery point* identified by the *MIRN*;
- (f) when discussing a *delivery point* or a *MIRN*, a reference:
 - (i) to “the *user*” or “the *current user*” is a reference to the *current user* for the *delivery point*; and
 - (ii) to “the *incoming user*” is a reference to the *incoming user* for the *delivery point*; and
 - (iii) to “the *meter*” is a reference to the *meter* which measures gas withdrawals at the *delivery point*; and

- (iv) to “the *sub-network*” is a reference to the *sub-network* in which the *delivery point* is located; and
 - (v) to “the *network operator*” is a reference to the *network operator* for the *sub-network* in which the *delivery point* is located; and
 - (vi) to “the *MIRN status*” is a reference to the *delivery point’s MIRN status*; and
 - (vii) to “the *previous user*” is a reference to the *user* that was the *current user* for the *delivery point* before a *transfer*; and
- (g) when discussing a *notice*, a reference:
- (i) to “the *user*” is a reference to the *current user* for the *delivery point* or *MIRN* specified in the *notice*; and
 - (ii) to “the *delivery point*” is a reference to the *delivery point* identified by the *MIRN* specified in the *notice*; and
 - (iii) to “the *MIRN*” is a reference to the *MIRN* identifying the *delivery point* to which the *notice* relates; and
 - (iv) to “the *current user*” is a reference to the *current user* for the *delivery point* or *MIRN* specified in the *notice*; and
 - (v) to “the *network operator*” is a reference to the *network operator* for the *delivery point* or *MIRN* specified in the *notice* is located; and
 - (vi) to “the *discovery address*” is to the *discovery address* specified in the *notice*; and
 - (vii) to “the *customer*” is to the *customer* located at the *delivery point* identified by the *MIRN* specified in the *notice*;
 - (viii) to the “*previous user*” is to the *user* who was the *current user* for the *delivery point* identified by the *MIRN* specified in the *notice* before a *transfer* takes effect for the *delivery point*; and
- (h) when discussing a *gate point*, a reference to:
- (i) the *pipeline* for the *gate point* is reference to the *pipeline* that interconnects with a *sub-network* at the *gate point*; and
 - (ii) the *pipeline operator* for the *gate point* is a reference to the *pipeline operator* of the *pipeline* that interconnects with a *sub-network* at the *gate point*; and
 - (iii) the *sub-network* for the *gate point* is a reference to the *sub-network* that interconnects with a *pipeline* at the *gate point*; and

- (iv) the *network operator* for the *gate point* is a reference to the *network operator* for the *sub-network* that interconnects with a *pipeline* at the *gate point*; and
- (v) a *user* for the *gate point* is a reference to a *user* for the *sub-network* that interconnects with a *pipeline* at the *gate point*; and
- (vi) a *related shipper* for the *gate point* is a reference to a *shipper* on the *pipeline* that interconnects with a *sub-network* at the *gate point* that, from time to time *injects* gas into the *sub-network* on behalf of a *user* for the *sub-network*; and
- (i) when discussing a *sub-network*, a reference to a *user* for the *sub-network* is a reference to:
 - (i) each *user* that is the *current user* for at least one *delivery point* in the *sub-network*; or
 - (ii) each *user* that was previously, but is no longer, the *current user* for at least one *delivery point* in the *sub-network*, until such time as *REMCeAEMO* records a *user's GBO identification* as “deregistered” in the *REMCeAEMO* registry under *ruleclause* 22(10).

- (3) In these *rulesprocedures*, a reference to “**gas day D**” is a reference to whichever *gas day* is designated by the *ruleprocedure* as such, and references to “**gas day D-1**” and “**gas day D+1**” are, respectively, references to the *gas day* before *gas day D* and the *gas day* after *gas day D*, respectively, and so on.

{Example: In *ruleclause* 236, if Wednesday is designated *gas day D*, a reference to *gas day D-1* in *ruleclause* 236 is a reference to Tuesday.}

4. ~~Delegation~~ There is no clause 4.

~~REMCe may delegate any one or more of the powers and functions conferred on it by these rules to one or more committees consisting of any number of either or both of REMCe directors and other persons, as REMCe thinks fit.~~

5. Meter readings deemed to occur at the start of the gas day

A *meter reading* of a *delivery point* taken at any time in a *gas day* is deemed to be a *meter reading* of the *delivery point* at the start of the *gas day*.

6. Calculations, rounding and measurements

- (1) For the purposes of these *rulesprocedures*, one hundred cubic feet equals 2.832 cubic metres.
- (2) *REMCeAEMO* and each *participant*, *pipeline operator* and *prescribed person* must comply with Appendix 5 in respect of calculations, rounding and units under these *rulesprocedures*.

6A. Time under these ~~rules~~procedures

- (1) ~~REMCe~~AEMO must operate the ~~REMCe~~AEMO information system and date and time stamp *transactions* under these ~~rules~~procedures, including the *process time*, on the basis of market standard time, which is Greenwich Mean Time plus 10 hours.
- (2) A reference in these ~~rules~~procedures:
 - (a) as to “gas day”:
 - (i) a reference in these ~~rules~~procedures to a day or date is a reference to the *gas day* commencing on the day or date referred to, and ending on the following day or date; and
 - (ii) references to months, quarters and years are to be given a corresponding meaning; and
 - (iii) in reckoning periods of months, quarters and years, the 8 hour offset between months, quarters and years reckoned under ~~rule~~clause 6A(2)(a)(ii) and calendar months, quarters and years, is to be disregarded; and
 - (b) to “0000 hours” on a day is to midnight at the start of the day ~~in the relevant jurisdiction~~; and
 - (c) to “2400 hours” on a day is to midnight at the end of the day ~~in the relevant jurisdiction~~; and
 - (d) to a time (including *start of business* or *close of business*) under these ~~rules~~procedures, is a reference to the local time or *business day*, being Western Standard Time (being Greenwich Mean Time plus 8 hours).

6B. Distribution tariff codes

A network operator must publish, including any amendments, and provide on request, the *distribution tariff codes* applying in each of the *network operator’s sub-networks*.

Part 1.2 – Compliance with obligations under these ~~rules~~procedures

7. Obligation to act as a reasonable and prudent person

- (1) Subject to ~~rule~~clause 7(2), each of ~~REMCe~~AEMO, a *participant*, a *pipeline operator* and a *prescribed person* is excused from the performance of, and is not liable for any failure in, carrying out any of its obligations under these ~~rules~~procedures, if it is prevented from doing so by any event or circumstance not within its reasonable control acting as a *reasonable and prudent person* and which it acting as a *reasonable and prudent person* is not able to prevent or overcome.
- (2) If a person under these ~~rules~~procedures claims the benefit of ~~rule~~clause 7(1), it must:
 - (a) use its reasonable endeavours to remedy the consequences of the event or circumstance without delay; and

- (b) endeavour as a *reasonable and prudent person* to resume compliance with its obligations under these ~~rules~~*procedures* as soon as reasonably practicable.
- (3) Without limiting ~~rule~~*clause* 7(2)(b), upon the event or circumstance that prevented the person from carrying out its obligations under these ~~rules~~*procedures* ceasing, the person who claimed the benefit under ~~rule~~*clause* 7(1) must provide all data, lodge all *notices* or take all other actions necessary to comply with their obligations, which they were prevented from doing previously due to the event or circumstance having occurred.

7A. Administration of the Scheme

AEMO must, in developing and operating the retail market scheme for a distribution system to which the scheme and these *procedures* relates, act in accordance with the following principles to the extent practicable:

- (a) seek to minimise the costs of participating in the gas retail market
- (b) have regard to the best interests of the gas market, including *participants* and *customers* within the distribution system;
- (c) seek to ensure that the retail market scheme achieves an appropriate balance between cost and quality of service;
- (d) promote and facilitate convergence of the Western Australian gas retail market with the other gas and electricity retail markets in Australia;
- (e) seek to minimise barriers to competition;
- (f) ensure fair, reasonable, and commercially sustainable cost recovery arrangements;
- (g) review and enhance market services and arrangements during operation of the retail market scheme, as required;
- (h) be flexible and responsive to participants;
- (i) consult with Government on the development and operation of the retail market scheme; and
- ~~(a)~~(j) operate in a transparent and accountable manner, subject to protection of commercial confidentiality.

Part 1.3— Notices

8. Requirements of effective notices and nominated contact details

- (1) Subject to this Part 1.3, a *notice* or other communication connected with these ~~rules~~*procedures* has no legal effect unless it is in writing and either sent in the format required under ~~rule~~*clause* 9, or if no format is specified, given as follows:

- (a) sent by electronic mail transmission or any other method of electronic communication to the appropriate nominated electronic address of the addressee; or
 - (b) sent by facsimile to the nominated facsimile number of the addressee; or
 - (c) delivered by hand to the nominated office of the addressee; or
 - (d) sent by post to the nominated postal address of the addressee.
- (2) Each person required to have a *GBO identification* under [rule clause 22\(2\)](#), must prior to being issued a *GBO identification* under [rule clause 22\(2\)\(b\)](#) provide [REMCeAEMO](#) with their nominated contact details for at least the type of address and contact details referred to in [rule clause 8\(1\)](#) (or such address and contact details as [REMCeAEMO](#) may request from time to time), and keep [REMCeAEMO](#) and all other persons with a *GBO identification* under these [rules procedures](#), informed of any changes to these details as may occur from time to time.
- (3) [REMCeAEMO](#) may, by *notice* to each person who is required under [rule clause 22\(2\)](#) to have a *GBO identification*, nominate more than one electronic address for the purposes of electronic communications to [REMCeAEMO](#) under [rule clause 8\(1\)\(a\)](#).
- (4) A person who is required to have a *GBO identification* under [rule clause 22\(2\)](#) (other than [REMCeAEMO](#)) may, by notice to [REMCeAEMO](#):
- (a) for the purposes of electronic communications under [rule clause 8\(1\)\(a\)](#) from [REMCeAEMO](#) to the person – request [REMCeAEMO](#) to consent to the person nominating more than one electronic address, and [REMCeAEMO](#) must within 2 *business days* notify the person that it consents to such a request unless there are reasonable grounds for [REMCeAEMO](#) withholding consent; and
 - (b) for any other electronic communications under [rule clause 8\(1\)\(a\)](#) – nominate more than one electronic address.
- (5) A notice under [rule clause 8\(3\)](#) or [8\(4\)](#) must:
- (a) clearly state each electronic address and the electronic communications for which each electronic address must be used; and
 - (b) specify a date from which the electronic addresses must be used for electronic communications, which must not be less than 12 *business days* from the date that the *notice* is given.
- (6) IF a *notice* under [rule clause 8\(3\)](#) or [8\(4\)](#) is given by a person other than [REMCeAEMO](#), [REMCeAEMO](#) must *notify* each person who is required under [rule clause 22\(2\)](#) to have a *GBO identification* of the contents of the *notice* within 2 *business days* of receiving the *notice*, and if [rule clause 8\(4\)\(a\)](#) applies, whether [REMCeAEMO](#) consents to the person's nomination.
- (7) In an emergency, or other situation where a *reasonable and prudent person* would consider itself justified in departing from the requirements of [rule clause 8\(1\)](#), a person may give a *notice* other than in accordance with [rule clause 8\(1\)](#), but if so the person

must, as soon as practicable, confirm the *notice* in writing and by a method prescribed by [rules](#)[clauses](#) 8(1)(a) to 8(1)(d).

9. Format of notices

Notices given under these [rules](#)[procedures](#) are to be in accordance with the format specified in the “FRC B2B System Interface Definitions” and the “Interface Control Document” (as applicable) as contained in the [REMCe](#)[AEMO](#) *Specification Pack*.

10. There is no [rule](#)[clause](#) 10

11. Delivery times for notices

(1) If a person (“**sender**”) is required under these [rules](#)[procedures](#) to give a *notice* “**immediately**” in:

- (a) aseXML format — then subject to [rule](#)[clause](#) 11(3), the *sender* must ensure that the *notice* is despatched from the *sender*’s gateway within a time consistent with a “medium priority transaction” as defined in section 2.5.5 of the “FRC B2M-B2B Hub System Specifications” in the [REMCe](#)[AEMO](#) *Specification Pack*; or
- (b) any other format — the *sender* must ensure that the *notice* is delivered to the recipient within 4.5 hours.

(2) If a *sender* is required under these [rules](#)[procedures](#) to give a *notice* “**promptly**” in:

- (a) aseXML format — then subject to [rule](#)[clause](#) 11(3) it must ensure that the *notice* is despatched from the *sender*’s gateway within a time consistent with a “low priority transaction” as that term is defined in section 2.5.5 of the “FRC B2M-B2B Hub System Specifications” in the [REMCe](#)[AEMO](#) *Specification Pack*; or
- (b) any other format — the *sender* must ensure that the *notice* is delivered to the recipient by *close of business* on the next *business day*.

(3) A *sender*’s obligations under [rules](#)[clauses](#) 11(1)(a) and 11(2)(a) do not apply during *permitted down time*.

~~(4) During the 12 months after the go-live date (“**initial period**”), *REMCe* may from time to time in its discretion, after consulting with each *sender*, specify one or more longer time periods under rule 11(1) or 11(2), but no longer time period specified under this rule 11(4) applies after the end of the *initial period*.~~

12. Notices by facsimile, hand delivery or post

(1) Any *notice* given in accordance with [rules](#)[clauses](#) 8(1)(b) to 8(1)(d) will be deemed to have been received:

- (a) subject to [rule](#)[clause](#) 12(2), if transmitted by facsimile or delivered by hand before *close of business* on a *business day*, at the time of transmission or on the day of delivery (as applicable), or otherwise, at *start of business* on the next *business day*; or

- (b) if sent by mail within Australia, on the second *business day* after posting (being, in each case, the time of day at the intended place of receipt of the *notice*).
- (2) A facsimile is not deemed given and received unless:
 - (a) at the conclusion of the transmission the sender's facsimile machine issues a transmission report which indicates that the relevant number of pages comprised in the *notice* have been sent; and
 - (b) if it is not received in full and in legible form — the addressee notifies the sender of that fact within 3 hours after conclusion of the transmission or by 12 noon on the *business day* on which it would otherwise be deemed given and received, whichever is the later.

12A. Notices by email

- (1) A *notice* sent by email is neither given nor received under these ~~rules~~[procedures](#) until the person sending the email (“**sender**”) receives an *automated response message* for the email from the person to whom the email was addressed (“**addressee**”).
- (3) It is the *sender’s* responsibility for each attempted email to:
 - (a) verify that it receives an *automated response message*; and
 - (b) if it does not receive an *automated response message*, arrange either for retransmission of the email, or for communication of the information contained in the email by an alternative medium.
- (4) For the purposes of these ~~rules~~[procedures](#), unless the *addressee* proves otherwise, an email is deemed to have been given by the *sender* and received by the *addressee* if:
 - (a) an *automated response message* for the email is received by the *addressee* before *close of business*, at the date and time shown in the *automated response message*; or
 - (b) otherwise, at *start of business* on the next *business day*.
- (5) For the purposes of these ~~rules~~[procedures](#) an *automated response message*:
 - (a) is not an email that requires receipt of a further *automated response message* in order for the *automated response message* to have been validly sent and received; and
 - (b) should not be generated in response to other *automated response messages*.

13. ~~REMCe~~[AEMO](#) may lodge and accept notices on behalf of a self-contracting user

- (1) A *self-contracting user* may request ~~REMCe~~[AEMO](#), or ~~REMCe~~[AEMO](#)’s nominee, to:
 - (a) lodge a *transfer request* on its behalf in order for the *self-contracting user* to *transfer* to itself; and

- (b) accept *notices* that are required to be in aseXML format under these [rulesprocedures](#) on behalf of the *self-contracting user* in relation to the *transfer request* referred to in [ruleclause](#) 13(1)(a).
- (2) Upon receiving a request under [ruleclause](#) 13(1), [REMCeAEMO](#), or [REMCeAEMO](#)'s nominee, must lodge a *transfer request* and accept *notices* in aseXML format on behalf of a *self-contracting user* on such terms and conditions as [REMCeAEMO](#) determines.

Part 1.4 – These [rulesprocedures](#) and other instruments

14. Other instruments

- (1) Each person required to comply with these [rulesprocedures](#), must also comply with the following documents (as applicable):
 - (a) the [REMCeAEMO](#) *Specification Pack*, but not the portions of the [REMCeAEMO](#) *Specification Pack* that apply only in South Australia; and
 - (b) *FRC Hub Operational Terms and Conditions*.
- (2) For the avoidance of doubt, Chapter 9 and the [ruleprocedure](#) change [procedure process](#) under these [rulesprocedures](#) do apply to any amendment made to the documents listed in [ruleclause](#) 14(1)(a), but not to the document listed in 14(1)(b) or to the portions of the [REMCeAEMO](#) *Specification Pack* that apply only in South Australia.
- (3) In the event of any inconsistency between the provisions of these [rulesprocedures](#) and either of the documents listed in [ruleclause](#) 14(1), the inconsistency is to be resolved by giving precedence to these [rulesprocedures](#) and then each of the other documents shall be read in the order of precedence as listed in [ruleclause](#) 14(1).
- (4) [REMCeAEMO](#) must publish the [REMCeAEMO](#) *Specification Pack* [and the FRC Hub Operational Terms and Conditions](#), as amended from time to time.

14A. [REMCeAEMO](#) Specification Pack

- (1) All communications must comply with the requirements of, and be submitted in the form and manner, and by the time, specified in the [REMCeAEMO](#) *Specification Pack* for the relevant type of communication, unless:
 - (a) expressly stated in these [rulesprocedures](#); or
 - (b) permitted by [REMCeAEMO](#) with regard to a *self-contracting user*.
- (2) [AEMO](#) cannot provide a release to a *self-contracting user* under [ruleclause](#) 14A(1)(b) from the requirements in the [REMCeAEMO](#) *Specification Pack* relating to the format of communications.
- (3) Where [REMCeAEMO](#) provides a release to a *self-contracting user* from an obligation specified in the [REMCeAEMO](#) *Specification Pack* under [ruleclause](#) 14A(1)(b), [REMCeAEMO](#) must advise the *network operator* of its decision.

- (4) ~~REMC~~~~o~~AEMO may reject any communication that does not comply with the requirements of ~~rule~~~~clause~~ 14A(1).

{Note: For clarity, ~~REMC~~~~o~~AEMO can permit a self-contracting user an exemption from the requirement to send its communications via the FRC Hub, but cannot exempt the self-contracting user from the formatting requirements for its communications.}

Part 1.5– Appendices

15. Identification of sub-networks, gas zones and gate points

- (1) A network operator must code each gas zone and each gate point in its sub-network under Appendix 1.
- (2) Each sub-network and each gate point ~~as at the go-live date~~ is listed with its identifying code in Appendix 1.
- (3) A network operator, acting as a reasonable and prudent person, may propose to establish a new sub-network that is not listed with an identifying code in the section of Appendix 1, or propose to change an existing uncovered sub-network, or covered sub-network as listed in Appendix 1, ~~that is applicable to the jurisdiction in which the network operator's GDS resides~~. If the network operator does so, it must notify ~~REMC~~~~o~~AEMO of the proposed new sub-network or proposed changes to an existing uncovered sub-network, or covered sub-network at least 40 business days before the new sub-network becomes operational, or before the proposed changes to an existing uncovered sub-network, or covered sub-network become operational.
- (4) Upon receipt of notification under ~~rule~~~~clause~~ 15(3), ~~REMC~~~~o~~AEMO must verify the establishment of the new or changed sub-network, and, if satisfied with its verification, must publish to each participant, pipeline operator and prescribed person an update to the relevant section of Appendix 1 specifying the new or changed sub-network and its identifying code and any applicable new gate point and its code.

16. ~~Rule~~~~Procedure~~ change ~~procedure~~ ~~process~~ does not apply to amending and updating Appendices

- (1) An amendment to:
- (a) Appendix 1; and
- {Note: The ~~procedure~~ ~~process~~ for amending Appendix 1 is set out in ~~rule~~~~clause~~ 15.}
- (b) Appendix 2 (excluding sub-appendix 2.3); and
 - (c) Appendix 7; and
 - (d) Appendix 8; and
- is not a ~~rule~~~~procedure~~ change under Chapter 9 and Part 9.2 does not apply to the amendment.
- (2) For the avoidance of doubt, sub-appendix 2.3 is subject to Chapter 9.

- (3) Except as otherwise provided in these ~~rules~~procedures and subject to ~~rule~~clause 16(4), a *network operator* may amend those sections of Appendix 2 ~~that are applicable to the jurisdiction in which the network operator's GDS resides.~~
- (4) Before any amendment to Appendix 2 takes effect, the *network operator* must:
- (a) consult each *user* and ~~REMCe~~AEMO in relation to the amendment; and
 - (b) take into consideration any reasonable objection to, or request to alter, the proposed amendment, from *users* or ~~REMCe~~AEMO; and
 - (c) provide *notice* to each *participant* and ~~REMCe~~AEMO (in such format as the *network operator* and ~~REMCe~~AEMO may agree) of the amended Appendix at least 20 *business days* prior to the updated Appendix taking effect.
- (5) Before any amendment to Appendix 7 takes effect, ~~REMCe~~AEMO must:
- (a) consult each *user*, *swing service provider* and *swing service provider of last resort* in relation to the amendment; and
 - (b) receive unanimous agreement from all *users*, all *swing service providers* and all *swing service providers of last resort* to the proposed amendment; and
 - (c) provide *notice* to each *participant*, *swing service provider* and *swing service provider of last resort* (in such format as ~~REMCe~~AEMO reasonably may determine) of the amended Appendix at least 20 *business days* prior to the updated Appendix taking effect.
- (6) Before any amendment to Appendix 8 takes effect, ~~REMCe~~AEMO must:
- (a) consult each *user* and *swing service provider of last resort* in relation to the amendment; and
 - (b) receive unanimous agreement from all *users* and all *swing service providers of last resort* to the proposed amendment; and
 - (c) provide *notice* to each *participant* and *swing service provider of last resort* (in such format as ~~REMCe~~AEMO reasonably may determine) of the amended Appendix at least 20 *business days* prior to the updated Appendix taking effect.
- {Note: ~~REMCe~~AEMO and the SSPs or SSPOLRs must execute variations to the SSPUD or SSPOLRUD prior to ~~REMCe~~AEMO publishing amendments to Appendices 7 or 8. Amendments to Appendices 7 or 8 have no legal effect on the terms of any SSPUD or SSPOLRUD.}

Part 1.6– Review of ~~rules~~procedures

17. Review of the ~~rules~~procedures

Except as otherwise stated in these ~~rules~~procedures:

- (a) in March ~~2015~~2020, or as soon as practicable thereafter, and every fifth anniversary from that date, ~~REMCe~~AEMO must consult with the ~~rule~~procedure

change committee on whether a review of these ~~rules~~procedures is to be undertaken; and

- (b) ~~REMC~~AEMO may determine at its discretion at any other time that a review of these ~~rules~~procedures is to be undertaken; and
- (c) if a review of these ~~rules~~procedures is to be undertaken, ~~REMC~~AEMO must develop a process (“~~rules~~procedures review process”) and *notify* all persons required to comply with these ~~rules~~procedures of the ~~rules~~procedures review process.

~~(Note: Rule 308 provides for an additional review process for Chapter 5.)~~

Chapter 2 – The databases

Part 2.1 – The REMCoAEMO registry

{Note: The REMCoAEMO registry is not the only database that REMCoAEMO will be required to create and maintain for its operations under these rulesprocedures.}

18. REMCoAEMO registry is deemed to be correct

- (1) If there is an inconsistency between an item of the REMCoAEMO standing data for a delivery point and an item in another database, then for the purposes of these rulesprocedures and in the absence of manifest error the REMCoAEMO standing data is deemed to be correct.
- (2) Nothing in ruleclause 18(1) limits participants' obligations to lodge a data change notice under ruleclause 27 or an error correction notice under ruleclause 32.
- (3) Nothing in ruleclause 18(1) limits participants' ability to enter into agreements to address or correct errors or inaccuracies in the REMCoAEMO standing data for a delivery point, subject to participants ensuring they comply with their obligations under ruleclause 26.

{Note: The purpose of ruleclause 18(3) is to permit "off-market" correcting transactions.}

19. Maintenance and administration of the REMCoAEMO registry

- (1) REMCoAEMO must maintain and administer the REMCoAEMO registry under these rulesprocedures.
- (2) The REMCoAEMO registry must include all delivery points in each jurisdiction.

20. REMCoAEMO standing data

- (1) REMCoAEMO must ensure that the REMCoAEMO registry includes at least the following accurate information in respect of each delivery point under these rulesprocedures from the sources listed below:

Information	Source
(a) the MIRN; and	network operator
(b) the MIRN status; and	network operator
(c) the first date on which the MIRN became commissioned; and {Note: If the delivery point was connected before the commencement of these rulesprocedures, this date will differ from the date of first connection.}	REMCoAEMO, based on the date notified to it by the network operator under ruleclause 65(2)(b)

Information	Source
(d) the <i>GBO Identification</i> of the <i>current user</i> , and	In the case of a <i>new connection</i> – <i>network operator</i> . In all other cases – REMC eAEMO .
(e) the <i>GBO Identification</i> of the <i>ROLR</i> ; and	REMC eAEMO (drawing the information from the <i>ROLR</i> scheme)
(f) the <i>GBO Identification</i> of the <i>network operator</i> ; and	<i>network operator</i>
(g) whether the <i>delivery point</i> is equipped with an <i>interval meter</i> or a <i>basic meter</i> ; and	<i>network operator</i>
(h) the <i>gas zone</i> ; and	<i>network operator</i>
(i) whether or not the <i>customer</i> at the <i>delivery point</i> is a <i>small use customer</i> ; and	REMC eAEMO
(j) There is no (j);	
(k) There is no (k);	
(l) There is no (l);	
(m) the <i>last date of modification</i> ; and	REMC eAEMO
(n) the last person to initiate a modification to the REMC eAEMO registry for the <i>MIRN</i> .	REMC eAEMO

- (2) In ~~rule~~[clause](#) 20(1), “**source**” means the person responsible for providing the information to ~~REMC~~[eAEMO](#), not necessarily the person who is the originating source of the information.

{Note: If a jurisdiction does not have a ROLR scheme, then the item of REMC-standing data in rule 20(1)(e) will be a dummy GBO identification for that jurisdiction.}

21. Current user remains financially responsible for a delivery point

A user remains recorded in the ~~REMC~~[eAEMO](#) registry as the *current user* until such time as:

- (a) the *MIRN* is *deregistered*; or
- (b) a *transfer* occurs in respect of the *delivery point*; or

- (c) **REMCeAEMO** accepts an *error correction transaction* in respect of the *delivery point*.

{Note: This **ruleprocedure** meets the requirement of section 11WL of the *Energy Coordination Act 1994* (WA).}

21A. FRC Hub certification

- (1) Each person required, or who has agreed, to comply with some or all of these **rulesprocedures** (as applicable), must participate in the *FRC Hub certification process* and must satisfy the *FRC Hub certification criteria* prior to the date they are required to comply with these **rulesprocedures**.
- (2) Prior to **REMCeAEMO** issuing a *GBO identification* under **ruleclause** 22(2), **REMCeAEMO** must determine as a *reasonable and prudent operator* whether a person referred to under **ruleclause** 21A(1) has satisfied the *FRC Hub certification criteria*.
- (3) Upon satisfaction of the *FRC Hub certification criteria* under **ruleclause** 21A(2), **REMCeAEMO** must issue a *FRC Hub compliance certificate* to the person.
- (4) **REMCeAEMO** may immediately cancel a *FRC Hub compliance certificate* if, in **REMCeAEMO**'s opinion as a *reasonable and prudent person* and having regard to the *FRC Hub certification criteria*, the holder of the *FRC Hub compliance certificate* breaches its obligations under the *FRC Hub Conditions* and/or the *Connectivity Testing and Technical Certification* document within the **REMCeAEMO** *Specification Pack* in such a manner that the integrity of the *FRC Hub* is jeopardised.
- (5) The consequences of **REMCeAEMO** cancelling a *FRC Hub compliance certificate* for the person whose *FRC Hub compliance certificate* has been cancelled are:
 - (a) the person must continue to comply with its obligations under these **rulesprocedures**; and
 - (b) the person is not entitled to personally send and receive *notices* under these **rulesprocedures** via the *FRC Hub* at any time during the period its *FRC Hub compliance certificate* is cancelled; and
 - (c) subject to **rulesclauses** 22(6) and 22(10), the status of the person's *GBO identification* remains "active".

{Note: As set out in the *FRC Hub Conditions*, the prohibition on a person personally sending *notices* via the *FRC Hub* while the person's *FRC Hub compliance certificate* has been cancelled only relates to aseXML transactions, because only aseXML transactions are sent via the *FRC Hub*.

The person whose *FRC Hub compliance certificate* has been cancelled ("**first person**") could arrange for another person who holds an *FRC Hub compliance certificate* ("**second person**") to send *notices* on the *first person's* behalf, in order for the *first person* to continue complying with their obligations under these **rulesprocedures**.

If the *first person* cannot and does not continue to comply with their obligations under these **rulesprocedures**, their breach of the **rulesprocedures** could be, if it has not been already, referred to **REMCeAEMO** or the *compliance panel* under Chapter 6.}

- (6) **REMCeAEMO** must restore a cancelled *FRC Hub compliance certificate* upon demonstration by the person whose *FRC Hub compliance certificate* has been cancelled, to **REMCeAEMO**'s satisfaction as a *reasonable and prudent operator* and

having regard to the *FRC Hub certification criteria*, that the person is no longer in breach, or has remedied the breach, of the [rulesprocedures](#) as referred to in [ruleclause](#) 21A(4).

21B. Readiness certification

- (1) Each person required, or who has agreed, to comply with some or all of these [rulesprocedures](#) (as applicable), must participate in the *readiness testing process* and must satisfy the *readiness criteria* prior to the date they are required to comply with these [rulesprocedures](#).
- (2) Prior to [REMCeAEMO](#) issuing a *GBO identification* under [ruleclause](#) 22(2), [REMCeAEMO](#) must determine as a *reasonable and prudent person* whether a person referred to under [ruleclause](#) 21B(1) has satisfied the *readiness criteria*, and if so, issue a *readiness certificate* to the person.

22. GBO identification

- (1) [REMCeAEMO](#) must have a unique *GBO identification* ~~in each jurisdiction~~.
- (2) [REMCeAEMO](#) must upon issuing a *FRC Hub compliance certificate* under [ruleclause](#) 21A(3) and a *readiness certificate* under [ruleclause](#) 21B:
 - (a) *notify* each person required to have a *GBO identification* under [ruleclause](#) 22(2), of [REMCeAEMO](#)'s *GBO identification*; and
 - (b) determine and issue a *GBO identification* for the person for each capacity in which it operates under these [rulesprocedures](#); and
(For example: A user may have two *GBO identifications* – one as a *user* and one as a *ROLR*. A shipper may have two *GBO identifications* – one as a *shipper* and one as a *swing service provider*.)
 - (c) record the status of the *GBO identification* issued under [ruleclause](#) 22(2)(b) as “active” in the [REMCeAEMO](#) registry; and
 - (d) within 1 *business day* of issuing a *GBO identification* under [ruleclause](#) 22(2)(b), *notify* all other persons with a *GBO identification* under these [rulesprocedures](#) of the *GBO identification* for the new person and provide them with the information set out in [rulesprocedures](#) 22(4)(a) to 22(4)(c).
- (3) [REMCeAEMO](#) must ensure that each person required to have a *GBO identification* under these [rulesprocedures](#) has a different *GBO identification* for each capacity in which it operates under these [rulesprocedures](#), but the same *GBO identification* if it operates in the same capacity ~~in both jurisdictions~~, including for example:
 - (a) a *user* that is also a *ROLR* must have a different *GBO identification* for its role as a *user* and its role as a *ROLR*; and
 - (b) a *shipper* that has contracts for the transportation of gas through more than one *pipeline* must have a different *GBO identification* as a *shipper* on each *pipeline*; and

- (c) a *pipeline operator* that operates as a *pipeline operator* and a *SSPOLR* must have a *GBO identification* for each role.
- (4) ~~REMC~~oAEMO must ensure that the ~~REMC~~oAEMO registry holds at least the following accurate information in respect of each *GBO identification* issued by ~~REMC~~oAEMO under ~~rule~~clause 22(2)(b):
 - (a) the name of the person; and
 - (b) the capacity in which the person operates in respect of the *GBO identification*; and
 - (c) the status of the *GBO identification*, being either “active”, “suspended” or “deregistered”; and
 - (d) the person’s nominated contact details as provided under ~~rule~~clause 8(2); and
 - (e) the effective date of any change to the information set out in ~~rules~~clauses 22(4)(a) to 22(4)(c).
- (5) Upon any detail changing under ~~rule~~clause 22(4), ~~REMC~~oAEMO must within 24 hours of making the change, *notify* all other persons with a *GBO identification* that an amendment has been made and provide them with the updated information as set out in ~~rules~~clauses 22(4)(a) to 22(4)(e).
- (6) ~~REMC~~oAEMO must record a person’s *GBO identification* as “suspended” in the ~~REMC~~oAEMO registry.
 - (a) if the person is a *Scheme participant, upon the person ceasing to be a party to the WA Gas Retail Market Agreement*~~REMC member—upon the person’s membership ceasing under the REMC Constitution~~; and
 - (b) if the person is a party to an agreement entered into under these ~~rules~~procedures which provides for the person’s *GBO identification* to be recorded as “suspended” – in accordance with the terms of the agreement.
- (7) The consequences of ~~REMC~~oAEMO recording a person’s *GBO identification* as “suspended” in the ~~REMC~~oAEMO registry are:
 - (a) the person must continue to comply with its obligations under these ~~rules~~procedures; and
 - (b) for a *user* – without limiting ~~rule~~clause 22(7)(a), the *user* is not entitled to exercise any rights granted to it under Chapter 2, Chapter 3, or Chapter 9; and
 - (c) for a *swing service provider* – without limiting ~~rule~~clause 22(7)(a), the *swing service provider* is not entitled to exercise its rights under ~~rule~~clause 281;
 - (d) for a *network operator* – without limiting ~~rule~~clause 22(7)(a), the *network operator* is not entitled to exercise any rights granted to it under Chapter 9.

- (8) To avoid doubt, recording a person's *GBO identification* as "suspended" in the *REMCeAEMO* registry has no effect on the operation of Chapter 5.

{Note: This means that a user with a "suspended" *GBO identification* will continue to be included in the allocation, reconciliation and swing calculations.}

- (9) If a person was "suspended" under *rule* clause 22(6)(b), then when the agreement provides that the person's *GBO identification* should be marked as "active", *REMCeAEMO* must record the person's *GBO identification* as "active" in the *REMCeAEMO* registry.
- (10) *REMCeAEMO* must record a person's *GBO identification* as "deregistered" in the *REMCeAEMO* registry:
- (a) if the person is no longer required to comply with these *rules* procedures — upon *REMCeAEMO* being notified that the person is no longer required to comply with these *rules* procedures; and
 - (b) if the person is no longer required to be bound by these *rules* procedures through an agreement with *REMCeAEMO* — upon that person ceasing to be bound by the agreement with *REMCeAEMO*; and
 - (c) if the person ceases to act in the capacity under these *rules* procedures to which the *GBO identification* relates — upon that person ceasing to act in that capacity; and
 - (d) upon the person exiting the market under *rule* clause 377B.
- (11) The consequence of *REMCeAEMO* recording a person's *GBO identification* as "deregistered" in the *REMCeAEMO* registry is that the person is no longer required to comply with these *rules* procedures and is not entitled to accrue any rights under these *rules* procedures.

23. *REMCeAEMO* to provide bulk *REMCeAEMO* standing data

- (1) In this *rule* clause, "bulk *REMCeAEMO* standing data":
- (a) in relation to a *network operator* — means the *REMCeAEMO* standing data for every *delivery point* in the *network operator's GDS*; and
 - (b) in relation to a *user* — means the *REMCeAEMO* standing data for every *delivery point* for which the *user* is the *current user*.
- {Note: The purpose of this *rule* procedure is to allow *REMCeAEMO* and *participants* to compare their databases at a particular time.}
- (2) A *participant* may request *REMCeAEMO* to provide the *participant* with bulk *REMCeAEMO* standing data ("bulk *REMCeAEMO* standing data request").
- (3) A bulk *REMCeAEMO* standing data request is valid only if the *participant* requesting the bulk *REMCeAEMO* standing data has an active *GBO identification*.
- (4) Upon receipt of a bulk *REMCeAEMO* standing data request that is not valid, *REMCeAEMO* must immediately notify the *participant* that lodged the bulk

REMCeAEMO standing data request that the bulk *REMCeAEMO* standing data request has been rejected and provide the reason why the bulk *REMCeAEMO* standing data request is not valid.

- (5) Subject to *rule clause* 23(6), *REMCeAEMO* must provide bulk *REMCeAEMO* standing data:
 - (a) to each *participant* on a quarterly basis; and
 - (b) subject to *rule clause* 23(7), to a *participant* upon receiving a valid bulk *REMCeAEMO* standing data request; and
 - (c) to the ROLR under *rule clause* 104(5) within the time required by that *rule clause*.
- (6) *REMCeAEMO* must:
 - (a) notify the *participant* of the time and date on which it will generate bulk *REMCeAEMO* standing data, which must be at least 5 *business days* after the date of notification under this *rule clause* 23(6)(a); and
 - (b) generate the bulk *REMCeAEMO* standing data at the time and on the date notified under *rule clause* 23(6)(a); and
 - (c) provide the bulk *REMCeAEMO* standing data to the *participant* within 2 *business days* after the date of generation under *rule clause* 23(6)(b).
- (7) *REMCeAEMO* may, by having regard to the number of bulk *REMCeAEMO* standing data requests made by a *participant*, impose a limit on the number of bulk *REMCeAEMO* standing data requests a *participant* may lodge in any 30 day period for a fixed or indefinite period.

Part 2.2 – Changing the *REMCeAEMO* registry

Division 2.2.1 – Obligation to keep *REMCeAEMO* registry accurate

24. Purpose of this Part

The purpose of this Part 2.2 is to ensure that the *REMCeAEMO* registry is accurate.

25. *REMCeAEMO* must keep *REMCeAEMO* registry accurate

- (1) *REMCeAEMO* must not knowingly permit the *REMCeAEMO* registry to be materially inaccurate.
- (2) If *REMCeAEMO* becomes aware of a material *inaccuracy* in the *REMCeAEMO* registry, then:
 - (a) if it is the source for the item of the *REMCeAEMO* standing data under *rule clause* 20(1) — it must as a *reasonable and prudent person* correct the *inaccuracy*; or

- (b) if it is not the source for the item of the *REMCeAEMO* standing data under *ruleclause* 20(1) — it must notify the *network operator* as soon as practicable and provide details of the *inaccuracy*.

26. Participants must keep *REMCeAEMO* registry accurate

- (1) Without limiting *ruleclause* 27 or *ruleclause* 32, a *participant* must not knowingly permit the *REMCeAEMO* registry to be materially *inaccurate*.
- (2) A *network operator* may discharge its duty under *ruleclause* 26(1) by, as soon as practicable:
 - (a) lodging a *data change notice* under *ruleclause* 27(1)(a); or
 - (b) notifying *REMCeAEMO* under *ruleclause* 27(1)(b) that multiple *data change transactions* are required and should be dealt with as a bulk *transaction*; or
 - (c) lodging an *error correction notice* under *ruleclause* 32(3) in respect of having lodged an incorrect *new connection confirmation notice* or incorrect *permanent removal confirmation notice*; or
- (3) A *current user* may discharge its duty under *ruleclause* 26(1) by, as soon as practicable notifying:
 - (a) the *previous user* under *ruleclause* 32(1)(a) that it incorrectly lodged a *transfer request*; or
 - (b) the *network operator* under *ruleclause* 32(1)(b).
- (4) A *previous user* may discharge its duty under *ruleclause* 26(1) by, as soon as practicable lodging an *error correction notice* under *ruleclause* 32(2) in respect of an incorrect *transfer request* having been lodged by the *current user*.
- (5) The *previous user*, *current user* and the *network operator* must, where appropriate and reasonable, cooperate and assist *REMCeAEMO* with *maintaining accurate REMCeAEMO* standing data in the *REMCeAEMO* registry and correcting incorrect *delivery point transactions* by providing all reasonable assistance to *REMCeAEMO* in relation to a *data change transaction* and an *error correction transaction* (as applicable).

Division 2.2.2 – Data change notices

27. Data change notice

- (1) If the *network operator* becomes aware of a change to, or an inaccuracy in, items 20(1)(f), 20(1)(g), 20(1)(h), 20(1)(k) or 20(1)(l) of the *REMCeAEMO* standing data for the *delivery point* for which it is the source under *ruleclause* 20(1), then it must as soon as practicable:
 - (a) lodge a *data change notice* for the *delivery point* with *REMCeAEMO*; or

- (b) notify [REMGcoAEMO](#) that multiple *data change transactions* are required and should be dealt with as a bulk *transaction* under [ruleclause](#) 31.
- (2) If [REMGcoAEMO](#) determines that the multiple *data change transactions* referred to in [ruleclause](#) 27(1)(b) should not be dealt with as a bulk *transaction*, then:
 - (a) [REMGcoAEMO](#) must *immediately notify* the *network operator* of this determination; and
 - (b) the *network operator* must lodge a *data change notice* under [ruleclause](#) 27(1)(a) in respect of each *delivery point* affected by the *network operator's* proposed change to the [REMGcoAEMO](#) *standing data*.
 {Note: The next [ruleprocedure](#) dealing with multiple *data change transactions* is [ruleclause](#) 31.}
- (3) A *data change notice* must specify at least the following information:
 - (a) the *MIRN*; and
 - (b) the *GBO identification* of the *network operator* lodging the *data change notice*; and
 - (c) the proposed amendment to the [REMGcoAEMO](#) *standing data*; and
 - (d) the reason for the proposed amendment; and
 - (e) the earliest date that the proposed amendment to the [REMGcoAEMO](#) *standing data* can be registered in the [REMGcoAEMO](#) *registry*.

28. Requirements for valid data change notice

A *data change notice* is valid only if:

- (a) the *delivery point* exists in the [REMGcoAEMO](#) *registry*; and
- (b) the *delivery point's MIRN status* is *commissioned* or *decommissioned*; and
- (c) there is not, in relation to the *delivery point*:
 - (i) an *open data change transaction* for the same item of [REMGcoAEMO](#) *standing data* with an effective date on or after the effective date of the *data change notice*; or
 - (ii) an *open transaction* that is not a *data change transaction*; and
- (d) it is lodged by the *network operator* who has an *active GBO identification*; and
- (e) the proposed amendment only relates to items 20(1)(f), 20(1)(g), 20(1)(h), 20(1)(k) or 20(1)(l) of the [REMGcoAEMO](#) *registry*; and
- (f) the proposed amendment relates to item 20(1)(h) of the [REMGcoAEMO](#) *registry*, that the proposed *gas zone* exists in the [REMGcoAEMO](#) *registry*; and

- (g) the date proposed under [ruleclause 27\(3\)\(e\)](#) is no earlier than 30 *business days* before and no later than 30 *business days* after the date on which the *data change notice* was lodged; and

29. If data change notice is not valid

Upon receipt of a *data change notice* which is not valid, [REMCeAEMO](#) must *immediately*:

- (a) reject the *data change notice*; and
- (b) *notify* the *network operator* that lodged the *data change notice* that the *data change notice* has been rejected and provide the reason why the *data change notice* is not valid.

{Note: A *network operator* wishing to reinitiate a *data change notice* that has been rejected must lodge a new *data change notice*.}

30. If data change notice is valid [REMCeAEMO](#) accepts data change transaction

Upon receipt of a valid *data change notice* lodged under [ruleclause 27\(1\)\(a\)](#), [REMCeAEMO](#) must forthwith accept the *data change notice*.

{Note: After accepting a *data change notice* under this [ruleclause 30](#), the *data change transaction* is complete and [REMCeAEMO](#) must update the [REMCeAEMO](#) registry under [ruleclause 49](#).}

31. Multiple data change transactions

- (1) Where [REMCeAEMO](#) determines that multiple *data change transactions* need to be handled as a bulk *transaction*, [REMCeAEMO](#) will manage the process, consult with affected parties to ensure the process is done efficiently and determine the *gas day* upon which the multiple *data change transactions* will take effect.
- (2) Upon completing the multiple *data change transactions*, [REMCeAEMO](#) must update the [REMCeAEMO](#) registry accordingly, to take effect from the start of the *gas day* as determined by [REMCeAEMO](#) under [ruleclause 31\(1\)](#) and provide the affected parties with at least the information contained in [ruleclause 53\(1\)](#) for the affected *delivery points*.

Division 2.2.3 – Error Correction Notices

32. Error correction notice

- (1) If a *current user* becomes aware of an error or inaccuracy in an item of the [REMCeAEMO](#) *standing data* as the result of:
 - (a) lodging an incorrect *transfer request* with [REMCeAEMO](#), then the *current user* must as soon as practicable *notify* the *previous user* of this fact. If the *current user* does not know the identity of the *previous user* then:
 - (i) the *current user* must as soon as practicable *notify* [REMCeAEMO](#) and request [REMCeAEMO](#) to *notify* it of the identity of the *previous user*. The *current user's* request must include the following details:

- A. the *MIRN* for the relevant *delivery point*;
 - B. the *GBO identification* of the person lodging the notice;
 - C. the date the *transfer request* was completed (being the *transfer day* on which the *transfer* was purported to have occurred).
- (ii) within one *business day* of receiving a *notice* under [rule clause 32\(1\)\(a\)\(i\)](#) ~~REMCe~~AEMO must confirm that:
- D. the person lodging the notice is the *current user*;
 - E. the *delivery point* exists within the ~~REMCe~~AEMO Registry; and
 - F. a *transfer* was completed on the day referred to in the *notice*; and
- (iii) if ~~REMCe~~AEMO is able to confirm these matters, *notify* the *current user* of the identity of the *previous user*; or
- if ~~REMCe~~AEMO is not able to confirm the matters in [rule clause 32\(1\)\(a\)\(ii\)](#), then within one *business day* of receiving a *notice* under [rule clause 32\(1\)\(a\)\(i\)](#) ~~REMCe~~AEMO must *notify* the *current user*.
- (iv) As soon as practicable after receiving a *notice* under [clause 32\(1\)\(a\)\(ii\)](#), the *current user* must *notify* the *previous user* that it has become aware of an error or inaccuracy in an item of ~~REMCe~~AEMO *standing data* as a result of lodging an incorrect *transfer request*;
- (b) the *network operator* having lodged an incorrect *delivery point transaction* with ~~REMCe~~AEMO in respect of *new connection confirmation notice* or *permanent removal confirmation notice* — the *current user* must as soon as practicable *notify* the *network operator* of this fact.
- (2) If a *previous user* is notified under [rule clause 32\(1\)\(a\)](#) it may as soon as practicable lodge an *error correction notice* for the *delivery point* with ~~REMCe~~AEMO.
- (3) If a *network operator* becomes aware of an error or inaccuracy in an item of the ~~REMCe~~AEMO *standing data* as the result of:
- (a) being notified by the *current user* under [rule clause 32\(1\)\(b\)](#); or
 - (b) lodging an incorrect *delivery point transaction* with ~~REMCe~~AEMO in respect of *new connection confirmation notice* or *permanent removal confirmation notice*,
- then subject to [rule clause 32\(4\)](#), it must as soon as practicable lodge an *error correction notice* for the *delivery point* with ~~REMCe~~AEMO.
- (4) Before a *network operator* lodges an *error correction notice* as a result of [rule clause 32\(3\)\(b\)](#), it must *notify* the *current user* that it intends to lodge such a *notice*.
- (5) A *previous user* or a *network operator* may only lodge an *error correction notice* in respect of an incorrect *delivery point transaction*.

- (6) An *error correction notice* must specify at least the following information:
- (a) the *MIRN*; and
 - (b) the *GBO identification* of the *participant* lodging the *notice*; and
 - (c) the type of *delivery point transaction* that needs to be corrected; and
 - (d) the date the *delivery point transaction* was completed, so that if the *error correction notice* relates to:
 - (i) an incorrect *transfer*, the *transfer day* on which the *transfer* was purported to have occurred; or
 - (ii) an incorrect *new connection confirmation notice*, the day on which the *MIRN* was purported to have become *commissioned*; or
 - (iii) an incorrect *permanent removal confirmation notice*, the day on which the *MIRN* was purported to have become *deregistered*.

33. Requirements for valid error correction notice

An *error correction notice* is valid only if:

- (a) the *delivery point* exists within the ~~REMG~~AEMO registry; and
- (b) the specified *delivery point transaction* relates to one of the following:
 - (i) a *transfer*; or
 - (ii) a *new connection confirmation notice*; or
 - (iii) a *permanent removal confirmation notice*;and
- (c) the specified *delivery point transaction* relates to:
 - (i) a *transfer*, and there is not, in relation to the *delivery point*, an *open transaction*, unless the *open transaction* is a *reconnection confirmation notice* or *disconnection confirmation notice* for which the effective date is the same as the effective date of the *transfer day* of the completed *transfer*; or
 - (ii) a *new connection confirmation notice* or a *permanent removal confirmation notice*, and there is not, in relation to the *delivery point* an ~~open-transaction~~transaction,and
- (d) the specified *delivery point transaction* relates to the *MIRN*; and
- (e) the specified *delivery point transaction* has been completed; and

- (f) the specified *delivery point transaction* relates to:
- (i) a *transfer*, that:
 - G. the *participant* lodging the *notice* is the *previous user*; and
 - H. a *transfer* occurred on the *transfer day* specified in the *notice*; and
 - I. the *MIRN status* is *commissioned* or *decommissioned*; and
 - J. is the most recently completed *transaction* in respect of the *delivery point*, unless the more recently completed *transaction* is a *reconnection confirmation notice* or *disconnection confirmation notice* for which the effective date is the same as the effective date of the *transfer day* of the completed *transfer*;
 - or
 - (ii) a *new connection confirmation notice* or a *permanent removal confirmation notice*, that:
 - K. the *participant* lodging the *notice* is the *network operator*; and
 - L. the effective date of the change to the *MIRN status* recorded in the [REMCeAEMO](#) registry occurred on the date specified in the *error correction notice*; and
 - M. is the most recently completed *transaction* in respect of the *delivery point* as recorded in the [REMCeAEMO](#) registry;
- and
- (g) the *participant* lodging the *notice* has an *active GBO identification*; and
 - (h) the specified *delivery point transaction* did not occur more than 425 days before the date of lodgement of the *notice*.

34. If error correction notice is not valid

Upon receipt of an *error correction notice* which is not valid, [REMCeAEMO](#) must *immediately*:

- (a) reject the *error correction notice*; and
- (b) *notify* the *participant* that lodged the *error correction notice* that the *error correction notice* has been rejected and provide the reason why the *error correction notice* is not valid.

{Note: A *previous user* or a *network operator* wishing to reinitiate an *error correction notice* that has been rejected must lodge a new *error correction notice*.}

35. If error correction notice is valid

Upon receipt of a valid *error correction notice* lodged under [rule clause 32\(1\)](#), ~~REMCe~~[AEMO](#) must

(a) forthwith accept the *error correction notice*;

and

(b) if the *error correction notice* relates to a *transfer*, promptly notify:

(i) the *previous user* that the *error correction notice* has been accepted, which *notice* must provide at least the following information from the *error correction notice*:

- A. the unique identifier assigned by ~~REMCe~~[AEMO](#) to the *error correction notice*; and
- B. the *transfer day* on which the *transfer* was purported to have occurred; and
- C. the *process time* of the *error correction notice*; and

(ii) the *network operator* that the *error correction notice* has been accepted, which *notice* must provide at least the following information from the *error correction notice*:

- A. the *MIRN*; and
- B. the *GBO identification* of the *previous user*; and
- C. the *transfer day* on which the *transfer* was purported to have occurred; and
- D. the *process time* of the *error correction notice*; and
- E. the unique identifier assigned by ~~REMCe~~[AEMO](#) to the *error correction notice*; and

(iii) the *current user* that the *error correction notice* has been accepted, which *notice* must provide at least the following information from the *error correction notice*:

- A. the *MIRN*; and
- B. the *transfer day* on which the *transfer* was purported to have occurred; and
- C. the *process time* of the *error correction notice*; and
- D. the unique identifier assigned by ~~REMCe~~[AEMO](#) to the *error correction notice*; and

- (iv) suspend the *error correction transaction* until the lapse of the *error correction objection resolution period*;

or

- (c) if the *error correction notice* relates to a *new connection confirmation notice*, promptly notify the *network operator* and the *current user* that the *error correction notice* has been accepted.

{Note: If the *error correction notice* relates to a *new connection confirmation notice* or *permanent removal confirmation notice*, the next applicable [rule procedure](#) appears at [rule clause](#) 50(a) where [REMGCoAEMO](#) must update the [REMGCoAEMO](#) registry.}

36. Error correction objection (in respect of an incorrect transfer)

- (1) Before *close of business* at the expiry of 2 *full business days* after the *process time* notified under [rule clause](#) 35(b)(ii)D or 35(b)(iii)C, a *participant* may lodge with [REMGCoAEMO](#) an *error correction objection* on one or more of the following grounds:
 - (a) after making reasonable inquiries, the *participant* reasonably believes that the *error correction notice* contains incorrect information; or
 - (b) the *participant* reasonably believes that the *delivery point transaction* specified in the *error correction notice* is correct.
- (2) An *error correction objection* must specify at least the following information:
 - (a) details of the *error correction notice* to which the *error correction objection* relates;
 - (b) the *GBO identification* of the *participant* lodging the *error correction objection*; and
 - (c) the ground of the *participant's* objection.
- (3) An *error correction objection* is valid only if:
 - (a) it corresponds to an *open error correction notice* lodged under [rule clause](#) 32(1), in respect of a correction to a *transfer*; and
 - (b) it is lodged by the *network operator* or the *current user* who has an *active GBO identification* (as applicable); and
 - (c) the *participant* lodging the *error correction objection* is objecting on one or more of the grounds specified in [rule clause](#) 36(1); and
 - (d) it is lodged within the time period allowed under [rule clause](#) 36(1).

37. If error correction objection is not valid

Upon receipt of an *error correction objection* which is not valid, [REMGCoAEMO](#) must *immediately*:

- (a) reject the *error correction objection*; and

- (b) *notify the participant that lodged the error correction objection that the error correction objection has been rejected and provide the reason why the error correction objection is not valid.*

38. If error correction objection is valid

Upon receipt of a valid *error correction objection*, ~~REMC~~*oAEMO* must:

- (a) *forthwith accept the error correction objection; and*
- (b) *promptly notify the relevant participants that the error correction objection has been accepted, which notice must provide at least:*
 - (i) *details of the error correction notice to which the error correction objection relates; and*
 - (ii) *the process time of the error correction objection.*

39. Withdrawal of error correction objection

- (1) *Before close of business at the expiry of 3 full business days after the process time notified under ~~rule~~clause 38(b)(ii), a participant that lodged an error correction objection may lodge an error correction objection withdrawal notice with ~~REMC~~*oAEMO*.*
- (2) *An error correction objection withdrawal notice must specify at least the following information:*
 - (a) *details of the error correction objection to which the error correction objection withdrawal notice relates; and*
 - (b) *the GBO identification of the participant lodging the notice.*
- (3) *An error correction objection withdrawal notice is valid only if:*
 - (a) *it corresponds to an open error correction objection previously lodged by the participant under ~~rule~~clause 36(1); and*
 - (b) *the participant lodging the notice has an active GBO identification; and*
 - (c) *it is lodged within the time period allowed under ~~rule~~clause 39(1).*

40. If error correction objection withdrawal notice is not valid

Upon receipt of an *error correction objection withdrawal notice* which is not valid, ~~REMC~~*oAEMO* must *immediately*:

- (a) *reject the error correction objection withdrawal notice; and*
- (b) *notify the participant that lodged the error correction objection withdrawal notice that the error correction objection withdrawal notice has been rejected and provide the reason why the error correction objection withdrawal notice is not valid.*

41. If error correction objection withdrawal notice is valid

Upon receipt of a valid *error correction objection withdrawal notice*, [REMCeAEMO](#) must:

- (a) forthwith accept the *error correction objection withdrawal notice*; and
- (b) forthwith *cancel* the corresponding *error correction objection*; and
- (c) *promptly notify* the relevant *participants* that the *error correction objection withdrawal notice* has been accepted and the corresponding *error correction objection* has been withdrawn, which *notice* must provide at least details of the *error correction objection* to which the *error correction objection withdrawal notice* relates.

42. Cancellation of error correction transaction

If, [REMCeAEMO](#) does not receive a valid *error correction objection withdrawal notice* within the time period specified ~~under~~ under rule clause 39(1), [REMCeAEMO](#) must:

- (a) forthwith *cancel* the *error correction transaction*; and
- (b) *promptly notify* the affected *participants* that the *error correction transaction* has been *cancelled*.

{Note: A *previous user* wishing to reinitiate an *error correction transaction* in respect of a *transfer request* that has been *cancelled* must lodge a new *error correction notice* under rule clause 32(2).}

43. Withdrawal of error correction notice

- (1) A *previous user* may withdraw an *error correction notice* in respect of a *transfer request* at any time before [REMCeAEMO](#) completes the *error correction notice* under rule clause 46, by lodging an *error correction withdrawal notice* to [REMCeAEMO](#).
- (2) A provision of these rules procedures permitting or requiring [REMCeAEMO](#) to cancel an *error correction transaction* does not limit the generality of rule clause 43(1).
- (3) An *error correction withdrawal notice* must specify at least the following information:
 - (a) details of the *error correction notice* to which the *error correction withdrawal notice* relates; and
 - (b) the *GBO identification* of the *previous user* lodging the *notice*.
- (4) An *error correction withdrawal notice* is valid only if it corresponds to an *open error correction notice* previously lodged by the *previous user* who has an *active GBO identification*.

44. If error correction withdrawal notice is not valid

Upon receipt of an *error correction withdrawal notice* which is not valid, [REMCeAEMO](#) must *immediately*:

- (a) reject the *error correction withdrawal notice*; and

- (b) *notify the previous user that lodged the error correction withdrawal notice that the error correction withdrawal notice has been rejected and provide the reason why the error correction withdrawal notice is not valid.*

45. If error correction withdrawal notice is valid

Upon receipt of a valid *error correction withdrawal notice*, REMCoAEMO must:

- (a) forthwith accept the *error correction withdrawal notice*; and
- (b) forthwith *cancel* the *error correction transaction*; and
- (c) *promptly notify* the affected *participants* that the *error correction withdrawal notice* has been accepted and that the *error correction transaction* has been *cancelled*.

46. REMCoAEMO to mark as pending and then complete error correction transaction in respect of an incorrect transfer

(1) If REMCoAEMO:

- (a) has accepted a valid *error correction notice* under [rule clause 35\(a\)](#) in respect of an incorrect *transfer*; and
- (b) has not been notified of a *correction withdrawal notice* under [rule clause 43\(1\)](#); and
- (c) either:
 - (i) does not receive a valid *error correction objection*; or
 - (ii) receives a valid *error correction objection* and also a valid *error correction objection withdrawal notice*,

then, REMCoAEMO must:

- (d) forthwith mark the *error correction transaction* as *pending*; and
- (e) *promptly notify* the affected *participants* that the *error correction transaction* is *pending*.

(2) Upon notifying *participants* under [rule clause 46\(1\)\(e\)](#), REMCoAEMO must:

- (a) forthwith complete the *error correction transaction*; and
- (b) *promptly notify* the affected *participants* that the *error correction transaction* has been completed.

{Note: After completing an *error correction transaction* under [rule clause 46\(2\)](#), REMCoAEMO must update the REMCoAEMO registry under [rule clause 50\(a\)](#).}

47. When error correction transactions take effect

Unless these [rules/procedures](#) state otherwise, an *error correction transaction* takes effect as from:

- (a) in respect of a *transfer*— the start of the *transfer day* on which the *transfer* was purported to have occurred; and
- (b) in respect of a *new connection confirmation notice*— the start of the *gas day* on which the *MIRN* was purported to have become *commissioned*; and
- (c) in respect of a *permanent removal confirmation notice*— the start of the *gas day* on which the *MIRN* was purported to have become *deregistered*.

Division 2.2.4 – Provision of metering data at conclusion of valid error correction transaction

48. Network operator must provide metering data to new current user

Within 5 *business days* of receiving a *notice* under [rule clause](#) 46 in respect of an incorrect *transfer*, the *network operator* must provide the new *current user* with the *metering data* for the *delivery point* (if any) that new *current user* would have received had the incorrect *delivery point transaction* (as applicable) not occurred.

Division 2.2.5 – Updating [REMCoAEMO](#) registry and provision of [REMCoAEMO](#) standing data

49. Updating [REMCoAEMO](#) registry after accepting a data change transaction

[REMCoAEMO](#) must upon accepting a *data change transaction* in relation to a *delivery point* under [rule clause](#) 30, amend the relevant item of [REMCoAEMO](#) standing data in the [REMCoAEMO](#) registry to take effect from the start of the *gas day* specified under [rule clause](#) 27(3)(e) (“**effective date**”), on the earlier of:

- (a) forthwith, if the *effective date* is retrospective; or
- (b) on the start of the *gas day* of the *effective date*, if the *effective date* is prospective.

{Note: This [rule clause](#) 49 does not apply to multiple *data change transactions* that are dealt with as a bulk *transaction* under [rule clause](#) 31(2).}

50. Updating [REMCoAEMO](#) registry after accepting and completing an error correction transaction

[REMCoAEMO](#) must:

- (a) upon accepting an *error correction transaction* in relation to:
 - (i) an incorrect new connection confirmation notice; or
 - (ii) an incorrect permanent removal confirmation notice,

for a *delivery point* under [ruleclause 35\(a\)](#) — forthwith correct the relevant item of [REMCeAEMO](#) standing data in the [REMCeAEMO](#) registry, to take effect from the start of the *gas day* specified in [ruleclause 47\(b\)](#) or [47\(c\)](#) (as applicable); and

- (b) upon completing an *error correction transaction* in relation to an incorrect *transfer* for a *delivery point* under [ruleclause 46](#) — forthwith correct the relevant item of [REMCeAEMO](#) standing data in the [REMCeAEMO](#) registry, to take effect from the start of the *gas day* specified in [ruleclause 47\(a\)](#).

51. Updating [REMCeAEMO](#) registry due to change in MIRN status

[REMCeAEMO](#) must:

- (a) upon accepting a valid *new connection confirmation notice* under [ruleclause 69](#) forthwith:
 - (i) create a new record for the *delivery point*; and
 - (ii) record the *MIRN status* as *commissioned*; and
 - (iii) load data into the [REMCeAEMO](#) registry including the items of the [REMCeAEMO](#) standing data provided by the *network operator* and including for a *basic-metered delivery point*, [REMCeAEMO](#) determining whether the *customer* is a *small use customer* under [ruleclause 373](#),

to take effect from the start of the *gas day* on which the *MIRN* became *commissioned* as notified to [REMCeAEMO](#) by the *network operator*; and

- (b) upon accepting a valid *disconnection confirmation notice* under [ruleclause 116\(1\)\(a\)](#) — forthwith record the *MIRN status* in the [REMCeAEMO](#) registry as *decommissioned*, to take effect from the start of the *gas day* on which the *MIRN* became *decommissioned* as notified to [REMCeAEMO](#) by the *network operator*; and
- (c) upon accepting a valid *reconnection confirmation notice* under [ruleclause 124\(1\)\(a\)](#) — forthwith record the *MIRN status* in the [REMCeAEMO](#) registry as *commissioned*, to take effect from the start of the *gas day* on which the *MIRN* became *commissioned* again as notified to [REMCeAEMO](#) by the *network operator*; and
- (d) upon accepting a valid *permanent removal confirmation notice* under [ruleclause 132\(a\)](#) — forthwith *deregister* the *MIRN* in the [REMCeAEMO](#) registry, to take effect from the start of the *gas day* on which the *MIRN* became *deregistered* as notified to [REMCeAEMO](#) by the *network operator*.

52. Updating [REMCeAEMO](#) registry due to a completed transfer or determination of a small use customer or a small use customer indicator determination

[REMCeAEMO](#) must:

- (a) record the *incoming user* in the [REMCeAEMO](#) registry as the *current user* to take effect from the start of the *transfer day*.

- (i) for a *basic metered delivery point* forthwith upon the receipt of a *meter reading* under [rule clause 103\(1\)\(b\)](#); or
- (ii) for an *interval-metered delivery point* at the start of the *earliest transfer day*; and
- (b) upon determining whether or not the *customer* at a *delivery point* is a *small use customer* under [rule clause 373](#) — within 1 *business day* record in the [REMCeAEMO](#) registry whether or not the *customer* is a *small use customer*, to take effect from the start of the *gas day* on which the determination was made by [REMCeAEMO](#).

53. Provision of [REMCeAEMO](#) standing data

- (1) Upon updating the [REMCeAEMO](#) registry under [rule clause 49](#), 50(a)(ii), 51(b), 51(c), 51(d) or 52(b), [REMCeAEMO](#) must *immediately notify* the *network operator*, and the ~~current user of~~ [user of](#) at least the following information:
 - (a) the *MIRN*; and
 - (b) the details of the updated item of [REMCeAEMO](#) standing data; and
 - (c) the reason for the update to the item of [REMCeAEMO](#) standing data; and
 - (d) the *last date of modification* of the [REMCeAEMO](#) registry for the *MIRN*; and
 - (e) the last person to initiate a modification to the [REMCeAEMO](#) registry for the *MIRN*.
- (2) Upon updating the [REMCeAEMO](#) registry under [rule clause 50\(b\)](#) or 52(a), [REMCeAEMO](#) must *immediately*:
 - (a) *notify the network operator* of at least the following information:
 - (i) the *MIRN*; and
 - (ii) the details of the updated item of [REMCeAEMO](#) standing data; and
 - (iii) the reason for the update to the item of [REMCeAEMO](#) standing data; and
 - (iv) the *last date of modification* of the [REMCeAEMO](#) registry for the *MIRN*; and
 - (v) the last person to initiate a modification to the [REMCeAEMO](#) registry for the *MIRN*; and
 - (b) provide the *current user* with the [REMCeAEMO](#) standing data for the *delivery point* and the reason for the update to the item of [REMCeAEMO](#) standing data; and
 - (c) *notify the previous user* of at least the following information:
 - (i) the *MIRN*; and

- (ii) that the *current user* of the *delivery point* has changed; and
- (iii) the reason for the update to the item of *REMCeAEMO standing data*; and
- (iv) the *last date of modification* of the *REMCeAEMO registry* for the *MIRN*.

{Note: The *transfer confirmation* notice provided under *ruleclause* 103(1)(d) also serves as the notice required under *ruleclause* 53(2)(c) for updates to the registry under *ruleclause* 52(a). For the avoidance of doubt this notice is only provided following the successful update of the *REMCeAEMO registry*.}

{Note: The *error transaction completion* notice provided under *ruleclause* 46(2)(b) also serves as the notice required under *ruleclause* 53(2)(c) for updates to the *registry* under *ruleclause* 50(b). For the avoidance of doubt this notice is only provided following successful update of the *REMCeAEMO registry*.}

- (3) Upon updating the *REMCeAEMO registry* under *ruleclause* 51(a), *REMCeAEMO* must immediately
 - (a) *notify the network operator* of at least the following information:
 - (i) the *MIRN*; and
 - (ii) the details of the updated item of *REMCeAEMO standing data*; and
 - (iii) the reason for the update to the item of *REMCeAEMO standing data*; and
 - (iv) the *last date of modification* of the *REMCeAEMO registry* for the *MIRN*; and
 - (v) the last person to initiate a modification to the *REMCeAEMO registry* for the *MIRN*; and
 - (b) provide the *current user* with the *REMCeAEMO standing data* for the *delivery point* and the reason for the update to the item of *REMCeAEMO standing data*.

Part 2.3 – Retention of and access to historical data in the *REMCeAEMO registry*

54. *REMCeAEMO registry* to provide audit trail

- (1) *REMCeAEMO* must ensure that the *REMCeAEMO registry* retains a full change history, such that it can be recreated for a *delivery point* as at the beginning of the *gas day* ~~in the relevant jurisdiction~~, for any date in the preceding 7 years or (if the *REMCeAEMO standing data* in the *REMCeAEMO registry* covers less than 7 years) for as many years as there is *REMCeAEMO standing data* in the *REMCeAEMO registry* for the *delivery point*.
- (2) The change history *maintained* under *ruleclause* 54(1) must for any change to the *REMCeAEMO standing data* for a *delivery point* made in the preceding 7 years, or for as many years as there is *REMCeAEMO standing data* available, permit the identification of:
 - (a) the date on which the change occurred; and

- (b) the identity of the *person* who initiated or requested the change.

55. Accessibility of data in the REMCoAEMO registry

REMCoAEMO must maintain or archive the previous REMCoAEMO standing data for each *delivery point* identified in the REMCoAEMO registry.

- (a) in a readily accessible format for at least 2 years after the date on which a *delivery point* is *deregistered*; and
- (b) after that for at least a further 5 years in a format accessible by REMCoAEMO within 5 *business days*.

55A. Explicit informed consent required

- (1) Before lodging a request with REMCoAEMO for *historical REMCoAEMO standing data* for a *delivery point* that relates to a period for which the *user* was not the *current user*, a *user* must obtain the *customer's explicit informed consent* to the receipt by the *user* of the requested data.

{Note: The *user* should ensure that the *customer's* consent extends to all actions the *user* may need to undertake to complete the request for the *historical REMCoAEMO standing data*.}

- (2) If at any time before REMCoAEMO has provided information to a *user* under [rule clause 57\(2\)](#), a *customer's explicit informed consent* under [rule clause 55A\(1\)](#) ceases to apply (for example because it is withdrawn), then the *user* must withdraw the request to the extent that the request relied upon the *customer's explicit informed consent*.
- (3) If at any time after REMCoAEMO has provided information to a *user* under [rule clause 57\(2\)](#), a *customer's explicit informed consent* under [rule clause 55A\(1\)](#) ceases to apply (for example because it is withdrawn), then the *user* must not use the information for any purpose and must to the extent reasonably practicable delete all copies of the information.

56. Request for historical REMCoAEMO standing data

- (1) Subject to [rule clause 56\(2\)](#), a *user* or a *network operator* may lodge an *historical REMCoAEMO standing data request* with REMCoAEMO in respect of a *delivery point*.
- (2) By lodging an *historical REMCoAEMO standing data request* with REMCoAEMO under [rule clause 56\(1\)](#), the *user* represents and warrants to REMCoAEMO that either:
 - (a) the *historical REMCoAEMO standing data* requested by the *user* only relates to a period for which the *user* was the *current user*, or
 - (b) that the *user* has complied with [rule clause 55A\(1\)](#).

{Note: Under [rule clause 376A\(2\)](#), a breach of this warranty will expose the *user* to liability for more than just direct damage.}

- (3) The *user* makes the warranty in [rule clause 56\(2\)](#) anew on each day that an *historical REMCoAEMO standing data request* is *open*.

- (4) An historical [REMCeAEMO](#) standing data request must specify at least the following information:
- (a) the *MIRN*; and
 - (b) the *GBO identification* of the *participant* lodging the request; and
 - (c) the start date and end date of the period to which the request relates; and
 - (d) the historical [REMCeAEMO](#) standing data requested.
- (5) [REMCeAEMO](#) may, by having regard to the number of historical [REMCeAEMO](#) standing data requests it receives, impose a daily limit on the number of historical [REMCeAEMO](#) standing data requests that a *participant* may lodge under [rule clause 56\(1\)](#) for a fixed or indefinite period.

57. [REMCeAEMO](#) to provide historical [REMCeAEMO](#) standing data

- (1) Upon receipt of an historical [REMCeAEMO](#) standing data request under [rule clause 56\(1\)](#), [REMCeAEMO](#) must:
- (a) confirm that the *participant* has an active *GBO identification*; and
 - (b) if the historical [REMCeAEMO](#) standing data request was made by a *network operator*, confirm that the *network operator* is recorded in the [REMCeAEMO](#) registry as the *network operator* for that *delivery point*.
- (2) Upon confirming the matters in [rule clause 57\(1\)](#) and provided that the *participant* has not withdrawn the request under [rule clause 57\(4\)](#), [REMCeAEMO](#) must provide the historical [REMCeAEMO](#) standing data (as requested) to the *participant* that lodged the historical [REMCeAEMO](#) standing data request:
- (a) within 1 *business day*, if the historical [REMCeAEMO](#) standing data requested is less than 2 years old; or
 - (b) within 5 *business days*, if the historical [REMCeAEMO](#) standing data requested is between 2 and 7 years old.
- (3) If [REMCeAEMO](#) was unable to confirm any or all of the matters in [rule clause 57\(1\)](#), [REMCeAEMO](#) must within 1 *business day* of receiving the historical [REMCeAEMO](#) standing data request:
- (a) reject the historical [REMCeAEMO](#) standing data request; and
 - (b) notify the *participant* that lodged the historical [REMCeAEMO](#) standing data request that the historical [REMCeAEMO](#) standing data request has been rejected and provide the reason why the historical [REMCeAEMO](#) standing data request has been rejected.
- (4) A *participant* may at any time before receiving the requested historical [REMCeAEMO](#) standing data under [rule clause 57\(2\)](#), withdraw the request made under [rule clause 56\(1\)](#) by notifying [REMCeAEMO](#).

Part 2.4 – A network operator's databases

58. MIRN database

Each *network operator* must create, *maintain* and administer a *MIRN database*, which must include at least the following information in respect of each *delivery point* located in the *network operator's GDS*:

- (a) the *MIRN*; and
- (b) the *discovery address*; and
- (c) the *meter number*; and
- (d) for a *basic meter* — the *reading day number*; and
- (e) the *gas zone code*; and
- (f) the *distribution tariff code* to which that *delivery point* is assigned; and
- (g) the *MIRN status*.

59. Street/suburb table

- (1) Each *network operator* must create, *maintain*, administer and make available in *electronic form* a *street/suburb table* that can be remotely accessed for downloading by a *participant*.
- (2) The *street/suburb table* must be an extract from the *network operator's MIRN database* and must identically reproduce the *street/suburb combination* for the *discovery address* of every *delivery point* in the *network operator's GDS* as it is recorded in the *network operator's MIRN database* at the time of the extraction, including:
 - (a) any abbreviations contained in the corresponding entry in the *MIRN database*;
{Example: St, Str, Ave, Rd.}
 - (b) any uppercase and lowercase letters contained in the corresponding entry in the *MIRN database*;
{Example: Alberts road, foley Street.}
 - (c) any spaces contained in the corresponding entry in the *MIRN database*; and
{Example: Riley Street, Riley Street, Beaumaris, Beaumaris.}
 - (d) any misspellings contained in the corresponding entry in the *MIRN database*,
{Example: Beaumorris, Beau-maris.}
- (3) The *street/suburb table* must not contain duplicate entries.
{Example: If there are 2 *delivery points* in a *network operator's MIRN database* which are both located on William Street, Perth, the *network operator* must not include both entries in the *street/suburb table* because it involves unnecessary duplication.}

(4) Each *network operator* must ensure that:

- (a) at least once every calendar month, its *street/suburb table* is extracted from its *MIRN database*; and
- (b) its *street/suburb table* specifies the date of extraction.

{Note: There is no mechanism for changes to the *street/suburb table*, because any errors in the *street/suburb table* should be changed in the *MIRN database*.}

60. MSD database

(1) Each *network operator* must create, *maintain* and administer a *MSD database*, which must include at least the following information in respect of each *delivery point* located in the *network operator's GDS*:

- (a) the *MIRN*; and
- (b) the *pressure correction factor*; and
- (c) the *meter number*; and
- (d) the *meter type*; and
- (e) the *index type*; and
- (f) for a *basic meter* — the number of dials; and
- (g) for a *basic meter* — the *reading day number*; and
- (h) the *meter location*; and
- (i) the *dog code*; and
- (j) site access information.

{Note: "Site access information" is intended to be a miscellaneous field for site information, eg-e.g. the location of a key.}

(2) A *network operator* is not liable for loss or damage suffered or incurred by any person as a result of information referred to in [rule clause 60\(1\)\(i\)](#) for a *delivery point* not being *accurate*.

61. Users and [REMCeAEMO](#) must assist a network operator to keep network operator's databases accurate

- (1) Neither a *user* nor [REMCeAEMO](#) may knowingly permit any or all of a *network operator's MIRN database*, *street/suburb table* or *MSD database* to be materially *inaccurate*.
- (2) A *user* or [REMCeAEMO](#) may discharge their respective duties under [rule clause 61\(1\)](#) by as soon as practicable *notifying* the *network operator* of a proposed amendment to one of the *network operator's databases* together with details of why it is necessary, within 2 *business days* after becoming aware of a need to change information stored in the *MIRN database* or *MSD database*.

- (3) Upon receipt of a *notification* under [rule clause 61\(2\)](#), a *network operator* must determine whether a change is required to one of its databases, and if it determines that no change is necessary it must within 5 *business days* *notify* the *user* or [REMCe AEMO](#) (as applicable) of its determination and its reasons.

62. Updating MIRN database and MSD database

- (1) A *network operator* must, in accordance with this [rule clause 62](#), ensure that the information stored in its *MIRN database* and its *MSD database* is *accurate*.
- (2) [Rule Clause 62\(1\)](#) does not require a *network operator* to undertake any investigation in respect of the items referred to in [rules clauses 60\(1\)\(i\)](#) and [60\(1\)\(j\)](#), but this [rule clause 62\(2\)](#) does not limit the *network operator's* obligations under [rule clause 61\(3\)](#) if it is notified under [rule clause 61\(2\)](#) of a necessary change to either of those items.
- (3) Upon updating its *MIRN database* and *MSD database*, except as a result of undertaking a *disconnection* under [rule clause 105\(1\)\(c\)](#) or a *reconnection* under [rule clause 117\(1\)\(c\)](#), a *network operator* must *promptly* provide at least the updated item of *MIRN standing data* or *meter standing data* (as applicable) for a *delivery point* to the *current user*.

{Note: In accordance with [rule clause 27\(1\)](#), the *network operator* will if necessary also raise a *data change notice* with [REMCe AEMO](#), if a change has been made to the *gas zone*, *meter type* or if the *delivery point* is no longer in the *network operator's GDS*.}

Chapter 3 – MIRN transactions

Part 3.1 – New connection

63. Allocating MIRNs to network operators

- (1) Subject to [rule clause 63\(2\)](#), ~~REMC~~[AEMO](#) must assign a range of *MIRNs* to a newly registered *network operator*, in consultation with the *network operator*, at the time of notifying the *network operator* of its *GBO identification* under [rule clause 22\(2\)\(c\)](#).
- (2) ~~REMC~~[AEMO](#) must not assign the same range of *MIRNs* to more than one *network operator*.

64. Allocating a MIRN to a delivery point

- (1) Upon installing a *meter* at a *new connection*, a *network operator* must, if it has not done so already:
 - (a) assign a *MIRN* to the *delivery point* within the range and format as allocated to the *network operator* by ~~REMC~~[AEMO](#) under [rule clause 63](#); and
 - (b) determine a *MIRN checksum* for the *MIRN* in accordance with the standard algorithm as set out in Appendix 3.
- (2) A *network operator*:
 - (a) must not assign the same *MIRN* to more than one *delivery point*; and
 - (b) must not re-use a *MIRN* that related to a previously *deregistered delivery point*.

65. MIRNs becoming commissioned for the first time

- (1) A *network operator* has commissioned a *delivery point* when:
 - (a) a *meter* has been installed and commissioned at the *delivery point*; and
 - (b) gas is able to flow at the *delivery point*; and
 - (c) the *meter reading data* has been obtained for the *delivery point*.
- (2) Upon first commissioning a *delivery point*, a *network operator* must:
 - (a) *promptly notify* the *user* that the installation of the *meter* at the *delivery point* is complete and *notify* the *user* of:
 - (i) the *MIRN standing data*; and
 - (ii) the *meter standing data* assigned to the *delivery point*; and
 - (iii) for a *basic-metered delivery point* only, the *metering data* in accordance with [rule clause 161](#) as if the *user* were an *incoming user*; and
 - (b) *promptly lodge* a *new connection confirmation notice* with ~~REMC~~[AEMO](#).

66. New connection confirmation notice

A *new connection confirmation notice* must specify at least the following information:

- (a) the *MIRN* assigned to the *delivery point*; and
- (b) the *GBO identification* of the *network operator* lodging the *notice*; and
- (c) the date on which the *MIRN* became *commissioned*; and
- (d) the data for those items of the ~~REMC~~CoAEMO *standing data* for which the *network operator* is the source under ~~rule~~clause 20(1); and
- (e) and if the *delivery point* is *basic-metered* — the *anticipated annual consumption* for the *delivery point*.

67. Requirements for valid new connection confirmation notice

A *new connection confirmation notice* is valid only if:

- (a) the *MIRN* does not already exist in the ~~REMC~~CoAEMO *registry*; and
- (b) it is lodged by the *network operator* who has an *active GBO identification*; and
- (c) the *user* nominated by the *network operator* as the *current user* for item 20(1)(d) of the ~~REMC~~CoAEMO *standing data*, has an *active GBO identification*; and
- (d) the date on which the *notice* is received is on or after the date on which the *MIRN* became *commissioned*; and
- (e) the *meter type* is either a *basic meter* or an *interval meter*; and
- (f) the *gas zone* exists in the ~~REMC~~CoAEMO *registry*; and
- (g) the *notice* sets out information for the purposes of ~~rules~~clause 66(e); and
- (h) the *user* has a contract with a *shipper* for the haulage of *gas* to that *delivery point*.

68. If new connection confirmation notice is not valid

Upon receipt of a *new connection confirmation notice* which is not valid, ~~REMC~~CoAEMO must *immediately*:

- (a) reject the *new connection confirmation notice*; and
- (b) *notify* the *network operator* that lodged the *new connection confirmation notice* that the *new connection confirmation notice* has been rejected and provide the reason why the *new connection confirmation notice* is not valid.

{Note: A *network operator* wishing to reinitiate a *new connection confirmation notice* that has been rejected must lodge a new *new connection confirmation notice*.}

69. If new connection confirmation notice is valid

Upon receipt of a valid *new connection confirmation notice* lodged under [rule clause 65\(2\)\(b\)](#), [REMGCo AEMO](#) must:

- (a) forthwith accept the *new connection confirmation notice*; and
- (b) *promptly notify* the *network operator* that the *new connection confirmation notice* has been accepted.

{Note: Upon accepting a valid *new connection confirmation notice* under [rule clause 69](#), [REMGCo AEMO](#) must update the [REMGCo AEMO](#) registry under [rule clause 51\(a\)](#) and provide the *user* and the *network operator* with the [REMGCo AEMO](#) standing data for the *delivery point* under [rule clause 53](#).

The *user* is responsible for all transportation and haulage charges to and all gas withdrawals from the *delivery point* from the beginning of date on which the *MIRN* became *commissioned*.)

Part 3.2 – MIRN discovery

70. Purpose of MIRN discovery process

The purpose of the *MIRN* discovery process is to enable a *user* to request and to receive information regarding a *delivery point*.

71. MIRN must be set out

- (1) There is no [rule clause 71\(1\)](#).
- (2) Each *user* must ensure that each invoice it renders to a *customer* [that is not a small-use customer](#) at a *delivery point* to which the *user* delivers gas includes the *MIRN* and *MIRN checksum* for the *delivery point*.

[{Note – There is an obligation on users to provide the MIRN on invoices to small-use customers in the Compendium of Gas Customer Licence Obligations, under Division 2 clause 4.5.}](#)

72. Explicit informed consent required

- (1) Before lodging a *MIRN discovery request* with a *network operator*, a *user* must obtain the *customer's explicit informed consent* to the receipt by the *user* of the *MIRN standing data* that relates to the *customer's delivery point*.

{Note: The *user* should ensure that the *customer's* consent extends to all actions the *user* may need to undertake to complete the *MIRN* discovery process, for example, subsequent lodgements if the first *MIRN discovery request* is rejected, liaison with the *network operator* under [rule clause 76](#) and the subsequent report that the *network operator* is required to provide [REMGCo AEMO](#) under [rule clause 73\(1\)](#).}

- (2) By lodging a *MIRN discovery request* with a *network operator*, the *user* represents and warrants to the *network operator* that the *user* has complied with [rule clause 72\(1\)](#).

{Note: Under [rule clause 376A\(2\)](#), a breach of this warranty will expose the *user* to liability for more than just direct damage.}

- (3) A *user* makes the warranty in [rule clause 72\(2\)](#) anew on each day that the *MIRN discovery request* is open.
- (4) If at any time after the *network operator* has provided information to a *user* under [rule clause 75](#), a *customer's explicit informed consent* under [rule clause 72\(1\)](#) ceases

to apply (for example because it is withdrawn), then the *user* must not use the information for any purpose and must to the extent reasonably practicable delete all copies of the information.

- (5) This [rule clause](#) 72 does not apply where the *user* is a *self-contracting user*.
- (6) To avoid doubt, a *user* does not require the *customer's explicit informed consent* for receipt of the information referred to in [rule clause](#) 75(2)(b)(ii).
- (7) To avoid doubt, a *current user* for a *delivery point* does not require the *customer's explicit informed consent* for receipt of the *MIRN standing data* for the *delivery point*.

73. [REMCeAEMO](#) to review MIRN discovery requests and explicit informed consents

- (1) There is no [rule clause](#) 73(1).
- (2) Each *network operator* must, at least once a month, provide [REMCeAEMO](#) with a report of all *MIRN discovery requests* it received in the period since its last report under this [rule clause](#) 73(1).
- (3) The report under [rule clause](#) 73(1) is to be in a format agreed between [REMCeAEMO](#) and the *network operator* and must provide at least the following information for each *MIRN discovery request* received during the month:
 - (a) the *MIRN*; and
 - (b) the identity of the *user* lodging the request; and
 - (c) the *discovery address*.
- (4) [REMCeAEMO](#) may from time to time inspect each *user's* records of *explicit informed consent* given under [rule clause](#) 72(1), to conduct a *negative assurance audit* of the *user's* compliance with [rules clauses](#) 72(1) and 72(4).

74. The MIRN discovery request

- (1) Subject to [rule clause](#) 72, a *user* may lodge a *MIRN discovery request* with a *network operator* at any time.
- (2) A *MIRN discovery request* must specify at least the following information:
 - (a) the *GBO identification* of the *user* lodging the *MIRN discovery request*; and
 - (b) either:
 - (i) the *MIRN*; or
 - (ii) the *discovery address*.
- (3) For the purposes of [rule clause](#) 74(2)(b)(ii), a *user* must specify (if applicable) at the least the following information for the *discovery address*:

- (a) house number or lot number (as applicable), or if neither are applicable, the building/property name; and

{Note: In relation to building/property name for example "North Wing, Treasury Building" or "Brindabella".}

{Note: Lot numbers are allocated to an address prior to street numbering. }

- (b) street name; and

{For example: "Rundle" or "Murray".}

- (c) street type code; and

{For example: "St", "Rd", "Ave", or "Blvd".}

- (d) street suffix; and

{For example: "N", "S", "E" or "W".}

- (e) suburb/place/locality; and

{For example: "AdelaidePerth", "Mosman Park" or "Kippa-ringMt Lawley".}

- (f) State/Territory; and

{For example: "WA" .}

- (g) post code.

74A There is no ~~rule~~clause 74A

75. Network operator to respond to MIRN discovery request

- (1) If a *MIRN discovery request* specifies a *MIRN*, then subject to ~~rule~~clause 75(3):
- (a) if the *MIRN* does not appear in the *MIRN database* or its *MIRN status* is *deregistered* — the *network operator* must *immediately notify* the *user* of the fact; and
- (b) otherwise — the *network operator* must, in relation to the *MIRN*, *immediately* provide the *user* with:
- (i) the *MIRN standing data*, excluding the information referred to in ~~rule~~clause 58(d); and
- (ii) the next *scheduled meter reading* date and the planned frequency of future *scheduled meter readings*.
- (2) If a *MIRN discovery request* specifies a *discovery address* containing the information in ~~rule~~clause 74(3), then:
- (a) if the *discovery address* does not identically correspond to those elements of a *discovery address* in the *MIRN database* — the *network operator* must *immediately notify* the *user* of the fact; or
- (b) if the *discovery address* identically corresponds to those elements of a *discovery address* in the *network operator's MIRN database*, then:

- (i) if there is no *commissioned* or *decommissioned* MIRN for the *discovery address* in the *MIRN database* — the *network operator* must *immediately notify* the *user* of the fact; and
- (ii) if there is more than one *commissioned* or *decommissioned* MIRN for the *discovery address* in the *MIRN database* — the *network operator* must *immediately* provide the following information to the *user* for each MIRN (but only up to a maximum of 99 MIRNs) that has matched the *discovery address*:

- A. the MIRN; and
- B. the *meter number*; and
- C. the *discovery address*;

{Note: The purpose of this [ruleclause](#) 75(2)(b)(ii) is to assist a *user* discover a MIRN in respect of a block of units, shopping centre, or a factory etc, which all have the same street or lot number but will obviously have different unit or shop numbers, or in relation to factories, each factory will have a different lot number suffix (i.e. "A" or "B") etc.}

and

- (iii) otherwise, the *network operator* must *immediately* provide the *user* with:
 - A. the MIRN *standing data*, excluding the information referred to in [ruleclause](#) 58(d); and
 - B. the next *scheduled meter reading* date and the planned frequency of future *scheduled meter readings*.

{Note: A *user* may lodge a new MIRN *discovery request* under [ruleclause](#) 74(1) at any time.}

- (3) If the MIRN *discovery request* was not lodged on a *business day*, then the *network operator* must respond to the MIRN *discovery request* no later than on the next *business day* as if the MIRN *discovery request* was lodged on that *business day*.

76. Network operator to assist

- (1) A *user*, (provided it has first made reasonable efforts to lodge a valid MIRN *discovery request*) may request the *network operator's* assistance to determine a *delivery point's* *discovery address* or MIRN, in which case, subject to [ruleclause](#) 76(2), the *network operator* must provide that assistance:
 - (a) where the request for assistance is made before midday on a *business day* — by 5.00 pm on that *business day*; and
 - (b) where the request for assistance is made on or after midday on a *business day*, or is not made on a *business day* — by 5.00 pm on the next *business day*.
- (2) To avoid doubt, [ruleclause](#) 76(1) only requires the *network operator* to use reasonable endeavours during *business hours* to assist the *user* to determine a *delivery point's*

discovery address or MIRN to enable the user to lodge a further MIRN discovery request in relation to the delivery point.

{Note: A user may lodge a new MIRN discovery request under [rule clause 74\(2\)](#) at any time.}

- (3) If it is not possible for a network operator to resolve a user's query under [rule clause 76\(1\)](#) without undertaking a site visit, the network operator must, within 5 business days after receiving the request, visit the site on which the delivery point is located and resolve the user's query.

Part 3.3 – Transfer

{Note: This Part 3.3 deals with the transfer of customers from one user (current user) to another user (incoming user). However, in legal terms this is achieved by transferring gas deliveries at a delivery point from the current user to the incoming user.}

Division 3.3.1 – Introduction

{Note: In parallel to the transfer process under these [rules procedures](#), the incoming user needs to negotiate with the network operator either to agree suitable amendments to its haulage contract to reflect the addition of a delivery point, or to agree a haulage contract. These matters are dealt with under the Access Arrangement. The incoming user may need to deal with other matters as well, such as licensing.}

77. Transfer errors

- (1) If, due to a transfer error or otherwise, the wrong user is recorded in the [REMCeAEMO](#) registry as the current user, then [REMCeAEMO](#) and the affected users must cooperate to correct this error by either:
 - (a) a user lodging an error correction notice under [rule clause 32\(2\)](#); or
 - (b) a user lodging a new transfer request in respect of the delivery point and entering into an agreement under [rule clause 77\(2\)](#), but to avoid doubt the correcting transfer must have only prospective effect.
- (2) Subject to participants' obligations under [rule clause 32](#) to lodge an error correction notice in respect of an incorrect transfer request, participants may enter into agreements if they cannot meet the requirements under [rule clause 33](#) to lodge a valid error correction notice, to address or correct transfers which should have occurred but did not, or which occurred but should not have, or were otherwise in error (in this [rule clause](#) collectively "transfer errors").

{Note: The purpose of [rule clause 77\(2\)](#) is to permit "off-market" correcting transactions. For example, if the transfer day is in error.}
- (3) [REMCeAEMO](#) and all involved participants to an agreement under [rule clause 77\(2\)](#) must provide such information in accordance with these [rules procedures](#) as is required to facilitate the agreement.

78. Move in defined

A "move in" occurs when:

- (a) a small use customer commences occupation of premises; and

- (b) there is an associated change of *user* for the *delivery point* which supplies gas to the premises.

79. Explicit informed consent

- (1) Before lodging a *transfer request* with **REMCoAEMO**, an *incoming user* must obtain the *transferring customer's explicit informed consent* to the lodgement.

{Note: This consent could be obtained at the same time, and on the same form, as consent under [ruleclause 72](#), and may include consent for the purposes of [ruleclause 82\(a\)](#).}

- (2) By lodging a *transfer request* with **REMCoAEMO**, the *incoming user* represents and warrants to **REMCoAEMO** that the *incoming user* has complied with [ruleclause 79\(1\)](#).

{Note: Under [ruleclause 376A\(2\)](#), a breach of this warranty will expose the *incoming user* to liability for more than just direct damage.}

{Note: For the avoidance of doubt, Explicit Informed Consent is required for a "move in" as defined under [ruleclause 78](#).}

- (3) The *incoming user* makes the warranty in [ruleclause 79\(2\)](#) anew on each day that a *requested transfer* is open.
- (4) If, at any time before the *transfer* takes effect under [ruleclause 103\(1\)\(c\)](#) or [ruleclause 103\(2\)\(b\)](#) (as the case may be), a *transferring customer's explicit informed consent* ceases to apply (for example because it is withdrawn), then the *incoming user* must withdraw the *transfer request* under [ruleclause 95](#) within 2 *business days*.
- (5) This [ruleclause 79](#) does not apply where the *incoming user* is a *self-contracting user*.

80. Incoming user may lodge a transfer request

- (1) Subject to [ruleclause 79](#) and [ruleclause 80\(2\)](#), an *incoming user* may lodge a *transfer request* with **REMCoAEMO** on any day.
- (2) An *incoming user* that is a *self-contracting user* may only lodge a *transfer request* in respect of a *delivery point* at which it is the *customer*.
- (3) By lodging a *transfer request* with **REMCoAEMO**, the *self-contracting user* represents and warrants to **REMCoAEMO** that the *self-contracting user* is the *customer* for the *delivery point* to which the *transfer request* relates.

{Note: Under [ruleclause 376A\(2\)](#), a breach of this warranty will expose the *self-contracting user* to liability for more than just direct damage.}

Division 3.3.2 – The transfer request

81. Transfer request

- (1) A *transfer request* must specify at least the following information:
- (a) the *MIRN*; and
 - (b) the *incoming user's GBO identification*; and
 - (c) the *earliest transfer day*, and

{Note: Unless a *special meter reading* is requested for a *basic-metered delivery point*, the *transfer* of a *basic-metered delivery point* will take effect under [ruleclause 103\(1\)\(c\)](#) at the time of the next *scheduled meter reading* which occurs on or after the *earliest transfer day*, provided an *actual value* is generated at that time.}

{Note: Under [ruleclause 83\(i\)](#), an *earliest transfer day* must be no earlier than 5 *business days* after the date on which the *transfer request* is lodged (except where the *requested transfer* is a *move in*) and within the *allowable period*.}

{Note: For a *move in*, the *transfer* will take effect on the *move in* date or if there is no *deemed meter reading* or a *special meter reading* cannot be obtained on the *move in* date, it will take effect at the time a *special meter reading* is obtained under [ruleclause 99](#).}

(d) whether the *requested transfer* is a *move in*.

- (2) By lodging a *transfer request* that is specified to be a *move in*, an *incoming user* represents and warrants to ~~REMC~~[AEMO](#) that the *transfer request* relates to a *move in*.

{Note: Under [ruleclause 376A\(2\)](#), a breach of this warranty will expose the incoming user to liability for more than just direct damage.}

- (3) An *incoming user* makes the warranty in [ruleclause 81\(2\)](#) anew on each day that a *requested transfer* that is specified to be a *move in* is *open*.

- (4) If a *transfer request* specifies that a *requested transfer* is a *move in*, and at any time before registration of the *requested transfer* under [ruleclause 52\(a\)](#) the *incoming user* becomes aware that the *requested transfer* is not a *move in*, then the *incoming user* must withdraw the *transfer request* under [ruleclause 95](#).

- (5) The *network operator* must:

- (a) use the unique identifier assigned by ~~REMC~~[AEMO](#) to each *transfer request* as the *service order reference* for the purposes of [rulesclauses 105\(3\)\(b\)\(i\)](#) and [117\(1\)\(c\)](#); and
- (b) include the unique identifier on any invoice or other *transaction* sent to the *incoming user* in connection with the *transfer request*.

{Note: The *network operator* might be entitled to charge a *user* in connection with a deemed request under [ruleclause 82](#).}

82. Transfer request deemed to be a request for certain purposes

By lodging a *transfer request*, the *incoming user* is deemed to have requested the *network operator*, as part of the *transfer process*:

- (a) if a *basic-metered delivery point* is *decommissioned* — to *reconnect* it; and
- (b) if the *requested transfer* is cancelled after a *reconnection* has occurred under [ruleclause 117\(1\)\(c\)](#) — to *disconnect* it again; and
- (c) if the *requested transfer* is a *move in* at a *basic-metered delivery point* — to undertake a *special meter reading* under [ruleclause 99\(1\)](#).

83. Requirements for valid transfer request

A *transfer request* is valid only if:

- (a) the *delivery point* exists within the [REMCeAEMO](#) registry; and
- (b) the *MIRN status* is *commissioned* or *decommissioned*; and
- (c) there is not, in relation to the *delivery point*, an *open transfer request*; and
- (d) there is not, in relation to the *delivery point*, an *open error correction transaction*; and
- (e) the *incoming user* is a *user* and has an *active GBO identification*; and
- (f) except in the case of a *ROLR event* — the *incoming user* is not the *ROLR*; and
- (g) if the *requested transfer* is a *move in* the *transferring customer* is a *small use customer*;
{Note: [REMCeAEMO](#) determines under [rule clause](#) 373 whether a *customer* is a *small use customer*.}
- (h) if the *requested transfer* is a *move in* — the *delivery point* is *basic-metered*; and
- (i) the *earliest transfer day* is within the *allowable period* and:
 - (i) if the *requested transfer* is not a *move in* — no earlier than 5 *business days* after the date on which the *transfer request* is lodged; and
 - (ii) if the *requested transfer* is a *move in* — no earlier than the date on which the *notice* is lodged.
- (j) the *user* has a contract with a *shipper* for the haulage of *gas* to that *delivery point*.

84. If transfer request is not valid

Upon receipt of a *transfer request* which is not valid, [REMCeAEMO](#) must *immediately*:

- (a) reject the *transfer request*; and
- (b) *notify* the *incoming user* that the *transfer request* has been rejected and provide the reason why the *transfer request* is not valid.

{Note: An *incoming user* wishing to reinitiate a *requested transfer* that has been rejected must lodge a new *transfer request*.}

85. If transfer request is valid

- (1) Upon receipt of a valid *transfer request*, [REMCeAEMO](#) must:
 - (a) forthwith accept the *transfer request*; and
 - (b) *immediately notify* the *incoming user* that the *transfer request* has been accepted which *notice* must provide at least the following details from the *transfer request*:
 - (i) the unique identifier assigned by [REMCeAEMO](#) to the *transfer request*; and

- (ii) the *process time* of the *transfer request*; and
 - (c) *immediately notify* the *network operator* that the *transfer request* has been accepted, which *notice* must provide at least the following details from the *transfer request*:
 - (i) the *MIRN*; and
 - (ii) the *GBO identification* of the *incoming user*; and
 - (iii) the *earliest transfer day*; and
 - (iv) whether the *requested transfer* is a *move in*; and
 - (v) the *process time* of the *transfer request*; and
 - (vi) the unique identifier assigned by REMCoAEMO to the *transfer request*; and
 - (d) *immediately notify* the *current user* that the *transfer request* has been accepted, which *notice* must provide at least the following details from the *transfer request*:
 - (i) the *MIRN*; and
 - (ii) the *earliest transfer day*; and
 - (iii) whether the *requested transfer* is a *move in*; and
 - (iv) the *process time* of the *transfer request*; and
 - (v) the unique identifier assigned by REMCoAEMO to the *transfer request*; and
 - (e) if the *requested transfer* is not a *move in* immediately suspend the *requested transfer* until lapse of the *transfer objection resolution period*.
- (2) In normal circumstances REMCoAEMO will not *notify* the *current user* of the identity of an *incoming user*, however REMCoAEMO may do so where it judges, in its absolute discretion, that it is necessary to do so for the purpose of resolving any issue or *dispute*.
- (3) REMCoAEMO may also, in its absolute discretion, for the purpose of resolving any issue or *dispute* in relation to the *transfer request*, provide the *incoming user* with any information REMCoAEMO receives in writing from the *current user* in relation to the *transfer request*.
- (4) For the purposes of ruleclause 85(3), REMCoAEMO must provide the *incoming user* with the information REMCoAEMO receives, in the same format as REMCoAEMO received the information from the *current user*, provided that it is a format contemplated by these *rulesprocedures*.
- {Note: For example, if REMCoAEMO receives the information in aseXML format then REMCoAEMO must forward the information in aseXML format to the *incoming user*, and if REMCoAEMO receives the information in an email, then REMCoAEMO must forward the information in an email.}

Division 3.3.3 – Objection to transfer (other than a move in)

{Note: This Division does not apply to *move ins*. The next step for a *move in* appears at [rule clause 95](#).}

86. Network operator may object to a transfer other than a move in

- (1) Before *close of business* at the expiry of 2 full business days after the process time notified under [rule clause 85\(1\)\(c\)\(v\)](#), if the *requested transfer* is not a *move in*, a network operator may lodge a *transfer objection* with [REMCeAEMO](#) on the ground that the *incoming user* has not entered into a *haulage contract* in respect of the *delivery point* and its *metering equipment* with the network operator.
- (2) A *transfer objection* under [rule clause 86\(1\)](#) must specify at least the following information:
 - (a) details of the *transfer request* to which the *transfer objection* relates; and
 - (b) the GBO identification of the network operator lodging the *transfer objection*.

87. ROLR may object to a transfer other than a move in after the retailer of last resort scheme has been invoked

- (1) There is no [rule clause 87\(1\)](#).
- (2) Before *close of business* at the expiry of 2 full business days after the process time notified under [rule clause 85\(1\)\(d\)\(iv\)](#), if:
 - (a) gas is being delivered at the *delivery point* by a ROLR; and
 - (b) the *requested transfer* is not a *move in*; and
 - (c) the *transferring customer* has not paid the ROLR fee,then the ROLR may lodge a *transfer objection* with [REMCeAEMO](#).
- (3) A *transfer objection* under [rule clause 87\(2\)](#) must specify at least the following information:
 - (a) details of the *transfer request* to which the *transfer objection* relates; and
 - (b) the GBO identification of the ROLR lodging the *transfer objection*.
- (4) By lodging a *transfer objection* under [rule clause 87\(2\)](#), the ROLR represents and warrants to [REMCeAEMO](#) that the *transferring customer* has not paid the ROLR fee.

{Note: Under [rule clause 376A\(2\)](#), a breach of this warranty will expose the ROLR to liability for more than just direct damage.}
- (5) The ROLR makes the warranty in [rule clause 87\(4\)](#) anew on each day that the *transfer objection* under [rule clause 87\(2\)](#) is open.
- (6) Subject to [rule clause 88](#), [REMCeAEMO](#) may accept and act upon a *transfer objection* under [rule clause 87\(2\)](#) without enquiring whether the *transferring customer* has or has not paid the ROLR fee.

88. Requirements for a valid transfer objection

A *transfer objection* is valid only if:

- (a) it corresponds to an *open transfer request*; and
- (b) it is lodged by either:
 - (i) the *network operator*, who has an *active GBO identification*; or
 - (ii) the *ROLR*, who has an *active GBO identification*, and the conditions in [rules/criteria](#) 87(2)(a), 87(2)(b) and 87(2)(c) are all met;

and

- (c) it is lodged within the time period allowed under [rule/criteria](#) 86(1) or [rule/criteria](#) 87(2) (as applicable); and
- (d) either (as applicable):
 - (i) the *network operator* is objecting on the ground specified in [rule/criteria](#) 86(1); or
 - (ii) the *ROLR* is objecting on the ground specified in [rule/criteria](#) 87(2); and

and

- (e) the *requested transfer* is not a *move in*.

89. If transfer objection is not valid

Upon receipt of a *transfer objection* which is not valid, [REMCo/AEMO](#) must *immediately*:

- (a) reject the *transfer objection*; and
- (b) *notify* the *participant* that lodged the *transfer objection* that the *transfer objection* has been rejected and provide the reason why the *transfer objection* is not valid.

90. If transfer objection is valid

Upon receipt of a valid *transfer objection*, [REMCo/AEMO](#) must:

- (a) forthwith accept the *transfer objection*; and
- (b) *immediately notify* the *incoming user* and the *participant* that lodged the *transfer objection* that the *transfer objection* has been accepted, which *notice* must provide at least:
 - (i) details of the *transfer request* to which the *transfer objection* relates; and
 - (ii) the *process time* of the *transfer objection*.

91. Withdrawal of transfer objection

- (1) Before *close of business* at the expiry of 3 full business days after the process time notified under [rule clause 90\(b\)\(ii\)](#), a participant that lodged a transfer objection may lodge a transfer objection withdrawal notice with [REMCeAEMO](#).
- (2) A transfer objection withdrawal notice must specify at least the following information:
 - (a) details of the transfer objection to which the transfer objection withdrawal notice relates; and
 - (b) the GBO identification of the participant lodging the notice.
- (3) A transfer objection withdrawal notice lodged by a participant is valid only if:
 - (a) it corresponds to both:
 - (i) an open transfer notice; and
 - (ii) an open transfer objection previously lodged by the participant who has an active GBO identification; and
 - (b) it is lodged within the time period allowed under [rule clause 91\(1\)](#).

92. If transfer objection withdrawal is not valid

Upon receipt of a transfer objection withdrawal notice which is not valid, [REMCeAEMO](#) must immediately:

- (a) reject the transfer objection withdrawal notice; and
- (b) notify the participant that lodged the transfer objection withdrawal notice that the transfer objection withdrawal notice has been rejected and provide the reason why the transfer objection withdrawal notice is not valid.

93. If transfer objection withdrawal is valid

Upon receipt of a valid transfer objection withdrawal notice, [REMCeAEMO](#) must:

- (a) forthwith accept the transfer objection withdrawal notice; and
- (b) forthwith cancel the transfer objection; and
- (c) immediately notify the incoming user and the participant that lodged the transfer objection withdrawal notice that the transfer objection withdrawal notice has been accepted and the corresponding transfer objection has been withdrawn, which notice must provide at least details of the transfer objection to which the transfer objection withdrawal notice relates.

94. If transfer objection not withdrawn

If [REMCeAEMO](#):

- (a) receives a valid *transfer objection*; and
- (b) does not receive a valid *transfer objection withdrawal notice* within the time period specified under [rule clause 91\(1\)](#),

then [REMCeAEMO](#) must:

- (c) before the start of the next *business day*, *cancel* the *requested transfer*; then
- (d) *promptly, notify* the *incoming user*, the *current user* and the *network operator* that the *requested transfer* has been *cancelled*.

{Note: An *incoming user* wishing to reinitiate a *requested transfer* that has been *cancelled* must lodge a new *transfer request*.}

Division 3.3.4 – Withdrawal of transfer request

95. Incoming user may withdraw a transfer request

- (1) An *incoming user* may withdraw a *transfer request* for a *basic-metered delivery point* at any time before [REMCeAEMO](#) issues a *transfer confirmation* under [rule clause 103\(1\)\(d\)\(i\)](#) by lodging a *transfer withdrawal notice* with [REMCeAEMO](#).
- (2) An *incoming user* may withdraw a *transfer request* for an *interval-metered delivery point* at any time up to two *business days* before the *earliest transfer day* specified in the *transfer request* for the *delivery point* by lodging a *transfer withdrawal notice* with [REMCeAEMO](#).
- (3) A provision of these [rules procedures](#) permitting or requiring the *incoming user* to withdraw, or [REMCeAEMO](#) to *cancel*, a *transfer request* does not limit the generality of [rules clauses](#) 95(1) and 95(2).
- (4) A *transfer withdrawal notice* must specify at least the following information:
 - (a) details of the *transfer request* to which the *transfer withdrawal notice* relates; and
 - (b) the *GBO identification* of the *incoming user* lodging the *notice*.
- (5) A *transfer withdrawal notice* is valid only if it corresponds to an *open transfer request* previously lodged by the *incoming user* who has an *active GBO identification*.

96. If transfer withdrawal notice is not valid

Upon receipt of a *transfer withdrawal notice* which is not valid, [REMCeAEMO](#) must *immediately*:

- (a) reject the *transfer withdrawal notice*; and
- (b) *notify* the *participant* that lodged the *transfer withdrawal notice* that the *transfer withdrawal notice* has been rejected and provide the reason why the *transfer withdrawal notice* is not valid.

97. If transfer withdrawal notice is valid

Upon receipt of a valid *transfer withdrawal notice*, ~~REMC~~oAEMO must:

- (a) forthwith accept the *transfer withdrawal notice*; and
- (b) forthwith *cancel* the *requested transfer*; and
- (c) *immediately notify* the *current user*, the *incoming user* and the *network operator* that the *transfer withdrawal notice* has been accepted and that the *requested transfer* has been *cancelled*.

Division 3.3.5 – ~~REMC~~oAEMO marks *move in* as *pending*

98. Marking a move in as pending

If:

- (a) ~~REMC~~oAEMO receives a valid *transfer request*; and
- (b) the *requested transfer* is a *move in*,

then ~~REMC~~oAEMO must:

- (c) forthwith mark the *move in* as *pending*; and
- (d) *immediately notify* the *incoming user*, the *current user* and the *network operator* that the *move in* is *pending*.

99. Network operator may be required to undertake special meter reading for a move in

(1) If a *requested transfer* is a *move in* and:

- (a) the *network operator* determines as a *reasonable and prudent person* that there is no prospect of determining a *deemed meter reading* under ~~rule~~clause 148(1)(a), for the *earliest transfer day*; and

{Note: The *network operator* may make this determination if it determines that there is unlikely to be a validated *scheduled meter reading* or *special meter reading* in the 10 days before the *move in*.}

- (b) no *scheduled meter reading* is scheduled for the *earliest transfer day*; and
- (c) no *special meter reading* has been requested (at least 2 *business days* prior to the *earliest transfer day*) by the *user*, for the *earliest transfer day*,

{Note: If a *user* requests a *special meter reading* for the *earliest transfer day* and cancels the request less than 2 *business days* prior to the *earliest transfer day*, the *network operator* will not be able to undertake a *special meter reading* on the *earliest transfer day*, because under ~~rule~~clause 147(1), the *network operator* requires at least 2 *business days' notice* in order to undertake a *special meter reading*.}

then, the *network operator* must undertake a *special meter reading*:

- (d) on the *earliest transfer day*; or

- (e) if the *earliest transfer day* is less than 2 *business days* after ~~REMC~~oAEMO gives notice under ~~rule~~clause 98(d) that the transfer is *pending* — within 2 *business days* after receipt of the notice.

(2) If a *requested transfer* is a *move in* and either:

- (a) a *scheduled meter reading* is scheduled for, or not more than 10 days before, the *earliest transfer day*; or
- (b) a *special meter reading* has been requested (at least 2 *business days* prior to the *earliest transfer day*) for, or not more than 10 days before, the *earliest transfer day* by either:
 - (i) the *current user*; or
 - (ii) the *incoming user*; or

- (c) the *network operator* is required to undertake a *special meter reading* under ~~rule~~clause 99(1)(d) or 99(1)(e);

and the *network operator* fails to obtain a *meter reading* under at least one of ~~rules~~clauses 99(2)(a), 99(2)(b)(i), 99(2)(b)(ii) or 99(2)(c), then the *network operator* must promptly notify the *incoming user* of the failure.

- (3) If within 3 *business days* after notifying the *incoming user* under ~~rule~~clause 99(2) the *network operator* receives a request from the *incoming user* to undertake a *special meter reading*, the *network operator* must undertake as soon as practicable a *special meter reading* for the *delivery point* the subject of the *requested transfer* ~~rule~~clause 99(1).
- (4) If ~~REMC~~oAEMO does not receive *metering data* under ~~rule~~clause 158 that contains an *actual value* or a *substituted value* within 7 *business days* of the *earliest transfer day*, then ~~REMC~~oAEMO must:
 - (a) forthwith *cancel* the *requested transfer*; and
 - (b) *immediately notify* the *incoming user*, the *current user* and the *network operator* that the *requested transfer* has been *cancelled*.

Division 3.3.6 – ~~REMC~~oAEMO marks other transfer as pending

100. Marking a transfer other than a move in as pending

- (1) This ~~rule~~clause 100 applies if:
 - (a) ~~REMC~~oAEMO receives a valid *transfer request*; and
 - (b) the *requested transfer* is not a *move in*.
- (2) If ~~REMC~~oAEMO:
 - (a) does not receive a valid *transfer objection*; or

- (b) receives a valid *transfer objection* and also a valid *transfer objection withdrawal notice*,

then **REMCoAEMO** must upon the lapse of the *transfer objection resolution period*:

- (c) forthwith mark the *requested transfer* as *pending*; and
- (d) *immediately notify* the *incoming user*, the *current user* and the *network operator* that the *requested transfer* is *pending*.

Division 3.3.7 – Actual value required for requested transfer of a basic metered delivery point

101. Requested transfer of a basic-metered delivery point requires meter reading that has generated an actual value

- (1) If a *requested transfer* for a *basic-metered delivery point* is *pending* and **REMCoAEMO** receives *metering data* under **rule clause** 158 that contains an *estimated value*, **REMCoAEMO** must within 24 hours *notify* the *incoming user* and *current user* that the *requested transfer* cannot take place until **REMCoAEMO** receives an *actual value* for the *delivery point*.

{Note: The *network operator* may provide **REMCoAEMO** with *metering data* that contains an *actual value* for the *delivery point* at any time. However, if *meter reading* that generates an *actual value* is taken after the *allowable period* has elapsed, **REMCoAEMO** will have already cancelled the *requested transfer*.}

{Note: **Rule Clause** 81(2) provides that a *requested transfer* may be specified to be a *move in*.}

- (2) If a *requested transfer* for a *basic-metered delivery point* is *pending* and **REMCoAEMO** does not receive notification of an *actual value* for the *delivery point* within the *allowable period*, then within 24 hours of the lapse of *allowable period* **REMCoAEMO** must:

- (a) *cancel* the *requested transfer*; and
- (b) *notify* the *incoming user*, the *current user* and the *network operator* that the *requested transfer* is *cancelled*.

{Note: An *incoming user* wishing to reinstate a *requested transfer* that has been *cancelled* must lodge a new *transfer request*.}

Division 3.3.8 – The transfer takes effect

102. Requirements for a transfer confirmation

A *transfer confirmation* must specify at least the following information:

- (a) the *MIRN*; and
- (b) the *transfer day*.

103. The transfer

(1) If:

- (a) a transfer is pending for a basic-metered delivery point; and
- (b) REMCoAEMO receives metering data under ruleclause 158 that contains an actual value for the delivery point:
 - (i) within the allowable period; and
 - (ii) which would result in the transfer day being on or after the earliest transfer day,

then:

- (c) the transfer takes effect as from the transfer time; and

{Note: The transfer day is the gas day upon which the meter reading that generated the actual value is obtained. The incoming user is responsible for all transportation and haulage charges to and all gas withdrawals from the delivery point from the beginning of the transfer day.}

{Note: Upon accepting a meter reading under ruleclause 103(1)(b), REMCoAEMO must update the REMCoAEMO registry under ruleclause 52(a).}

- (d) REMCoAEMO must give a transfer confirmation to the incoming user, the network operator and the current user by the following time:
 - (i) if REMCoAEMO receives metering data under ruleclause 103(1)(b) before close of business on a day — then before the start of the gas day on the next day; and
 - (ii) otherwise — before the start of the gas day two days after the receipt of metering data under ruleclause 103(1)(b).

{Note: In parallel to the transfer process under these rulesprocedures, the incoming user needs to negotiate with the network operator either to agree suitable amendments to its haulage contract to reflect the addition of a delivery point, or to agree a haulage contract. These matters are dealt with under the Access Arrangement. The incoming user may need to deal with other matters as well, such as licensing.}

(2) If:

- (a) a transfer is pending for an interval-metered delivery point then the transfer takes effect as from the transfer time; and
- (b) REMCoAEMO must forthwith give a transfer confirmation to the incoming user, the network operator and the current user after the transfer time.

(3) Upon receipt of the transfer confirmation under ruleclause 103(1)(d)(i) or 103(2)(b) (as the case may be), the network operator must:

- (a) with effect from the transfer time, record the incoming user in the network information system as the entity which is withdrawing gas at the delivery point; and
- (b) within 24 hours provide to the incoming user:

- (i) the *MIRN standing data* and the *meter standing data*; and
- (ii) for a *basic-metered delivery point* only, the *index reading* from the *metering data* **REMCeAEMO** received for the *delivery point* under **ruleclause** 158, as referred to in **ruleclause** 103(1)(b).

(4) There is no **ruleclause** 103(4)

Part 3.4 – Retailer of Last Resort Scheme

104. Retailer of last resort scheme

- (1) There is no **ruleclause** 104(1)
- (2) **REMCeAEMO** and *participants* must comply with the *ROLR scheme*.
- (3) There is no **ruleclause** 104(3).
- (4) If **REMCeAEMO** receives notice from the *ROLR administrator* that the *ROLR administrator* has invoked the *ROLR scheme*, **REMCeAEMO** must:
 - (a) immediately *notify each participant* that:
 - (i) the *ROLR scheme* has been invoked; and
 - (ii) **REMCeAEMO**'s *information system* will be closed under this **ruleclause** 104; and
 - (iii) **REMCeAEMO** will cease receiving all *transactions*,
from a specified time and date; and
 - (b) on the *ROLR transfer day* notified by the *ROLR administrator* close, and cease receiving all *transactions* to, **REMCeAEMO**'s *information system*, (which for the purposes of these **rulesprocedures** constitutes *permitted down time*); and
 - (c) during the *permitted down time* under **ruleclause** 104(4)(b) and subject to **ruleclause** 22(3):
 - (i) *cancel* all open *requested transfers* to or from the *ROLR event user*; and
 - (ii) *cancel* any *open error correction notice* that had been initiated by the *ROLR event user* and provide the reason for the *cancellation*; and
 - (iii) with effect from the *ROLR transfer time*, amend the **REMCeAEMO** *registry* for each *delivery point* at which the *customer* is a *small use customer* where the *ROLR event user* is the *current user*, so that the *ROLR* is recorded as the *current user*;

{Note: **REMCeAEMO** will cancel all open requested transfers and *error correction notices* via the use of normal *aseXML transactions*, as applicable under **rulesclauses** 97 and 42 respectively, prior to **REMCeAEMO** issuing a *ROLR event notification* to the Market. This is so that the *network operator* can carry out the required background processes to facilitate the *ROLR process*. Full details regarding the implementation of the *ROLR process* are contained in the **REMCeAEMO** Business Specification document. }

and

- (d) use reasonable endeavours to end the *permitted down time* under [rule clause 104\(4\)\(b\)](#), and re-open the [REMCeAEMO](#) information system as soon as practicable.
- (5) As soon as practicable after re-opening the [REMCeAEMO](#) information system, and in any event within 1 *business day* of the *ROLR transfer day*, [REMCeAEMO](#) must:
- (a) *notify all participants of the ROLR transfer day*;
 - (b) provide to each *participant*, a report of all *cancelled requested transfers* involving the *participant* and the *ROLR event user*;
 - (c) provide to each *network operator* a *notice* listing all of the *network operator's delivery points* which were transferred to the *ROLR* under [rule clause 104\(4\)\(c\)\(i\)](#); and
 - (d) provide the *ROLR*, in accordance with [rule clause 23\(5\)](#), with the *bulk REMCeAEMO standing data* for the *delivery points* that were transferred to the *ROLR* under [rule clause 104\(4\)\(c\)\(i\)](#).
- (6) Within 5 business days after receiving *notice* under [rule clause 104\(5\)\(c\)](#), a *network operator* must for each *delivery point* specified in the *notice*.
- (a) with effect from the *ROLR transfer time*, record the *ROLR* in the *network information system* as the entity which is withdrawing gas at the *delivery point*; and
 - (b) *promptly* provide the *ROLR* with the *MIRN standing data* and the *meter standing data* for each *delivery point*; and
 - (c) *promptly* provide the *ROLR* and [REMCeAEMO](#) with the *estimated value* calculated by the *network operator* for the *ROLR transfer day*.
- (7) For the purpose of [rule clause 104\(6\)](#), [rules clauses 79, 86\(1\) and 103\(1\)](#) do not apply, and [REMCeAEMO](#) may use an *estimated value* for all purposes connected with a *transfer* to the *ROLR*.
- (8) As soon as practicable after receiving the *estimated value* under [rule clause 104\(6\)\(c\)](#), [REMCeAEMO](#) must provide each *participant* with a list of that *participant's delivery points* and the information that relates to each *delivery point* in the same format as that described in [rule clause 23](#).

Part 3.5 – Disconnection and reconnection of delivery points

Division 3.5.1 – Disconnection by network operator

105. Disconnecting delivery points

- (1) A *network operator*:

- (a) may *disconnect* a *delivery point* when required to, or if not prevented, by *law* or a contract other than these ~~rules~~[procedures](#); and
 - (b) must (subject to *law*) *disconnect* a *delivery point* if required to under ~~rule~~[clause](#) 107; and
 - (c) must (subject to *law*), in response to a deemed request under ~~rule~~[clause](#) 82(b), if a *requested transfer* has been cancelled by ~~REMC~~[AEMO](#) after the *network operator* reconnected a *delivery point* under ~~rule~~[clause](#) 117(1)(c), *disconnect* the reconnected *delivery point* within 2 *business days* after the *network operator* receives notification from ~~REMC~~[AEMO](#) under either ~~rule~~[clause](#) 97(c) or 101(2)(b) that the *transfer* has been *cancelled*.
- (2) A *user* may at any time lodge a *disconnection notice* with the *network operator*.
- (3) A *disconnection notice*:
- (a) must specify at least the following information:
 - (i) the *MIRN*; and
 - (ii) the *user's GBO identification*; and
 - (b) if the *user* chooses — may specify the following additional information:
 - (i) the *service order reference*; and
 - (ii) the reason for the *disconnection*.
- (4) A *disconnection notice* is valid only if:
- (a) the *MIRN status* is not *deregistered*; and
 - (b) it is lodged by the *current user*; and
 - (c) the *delivery point* is in the *network operator's sub-network*.
- (5) If a *disconnection notice* was not lodged on a *business day*, then the *network operator* must respond to the *disconnection notice* no later than on the next *business day* as if the *disconnection notice* was lodged on that *business day*.

106. If *disconnection notice* is not valid

Upon receipt of a *disconnection notice* which is not valid, subject to ~~rule~~[clause](#) 105(5), the *network operator* must *immediately*:

- (a) reject the *disconnection notice*; and
- (b) *notify* the *participant* that lodged the *disconnection notice* that the *disconnection notice* has been rejected and provide the reason why the *disconnection notice* is not valid.

107. If disconnection notice is valid

- (1) Upon receipt of a valid *disconnection notice*, subject to [rule clause 105\(5\)](#), a *network operator* must:
 - (a) forthwith accept the *disconnection notice*; and
 - (b) *immediately notify* the *user* that the *disconnection notice* has been accepted.
- (2) Subject to [rule clause 108\(3\)](#), a *network operator* must (subject to *law*) at the same time, within 2 *business days* after receiving a valid *disconnection notice*, *disconnect* and undertake a *meter reading* of, and obtain the *meter reading data* for, the *delivery point*.
- (3) Within 2 *business days* of *disconnecting* a *delivery point* under [rule clause 105\(1\)](#) or [107\(2\)](#), the *network operator* must:
 - (a) calculate the *actual value* for the *delivery point* using the information obtained under [rule clause 107\(2\)](#); and
 - (b) change the *MIRN status* in its *MIRN database* to *decommissioned*; and
 - (c) *notify* the *user* that the *MIRN* is *decommissioned* and provide the *user* with the *metering data* under [rule clause 158](#), for the *meter reading* undertaken in accordance with [rule clause 107\(2\)](#); and
 - (d) lodge a *disconnection confirmation notice* with [REMCeAEMO](#); and
 - (e) provide [REMCeAEMO](#) with the *metering data* under [rule clause 158](#), for the *meter reading* undertaken in accordance with [rule clause 107\(2\)](#).

{Note: Refer to Division 3.5.3 for the [rules procedures](#) relating to *disconnection confirmation notices*.}

108. Disconnection withdrawal notice

- (1) A *user* may at any time prior to the *network operator disconnecting* a *delivery point* identified in a *disconnection notice* lodge a *disconnection withdrawal notice* with the *network operator*.
- (2) A *disconnection withdrawal notice* must specify at least the following information:
 - (a) the *MIRN*; and
 - (b) the *user's GBO identification*.
- (3) A *disconnection withdrawal notice* is valid only if:
 - (a) it corresponds to an *open disconnection notice* previously lodged with the *network operator*; and
 - (b) it is lodged by the *current user*.
- (4) If a *disconnection withdrawal notice* was not lodged on a *business day*, then the *network operator* must respond to the *disconnection withdrawal notice* no later than

on the next *business day* as if the *disconnection withdrawal notice* was lodged on that *business day*.

109. If disconnection withdrawal notice is not valid

Upon receipt of a *disconnection withdrawal notice* which is not valid, subject to [rule clause 108\(4\)](#), the *network operator* must *immediately*:

- (a) reject the *disconnection withdrawal notice*; and
- (b) *notify* the *participant* that lodged the *disconnection withdrawal notice* that the *disconnection withdrawal notice* has been rejected and provide the reason why the *disconnection withdrawal notice* is not valid.

110. If disconnection withdrawal notice is valid

Upon receipt of a valid *disconnection withdrawal notice*, subject to [rule clause 108\(4\)](#), the *network operator* must forthwith:

- (a) accept the *disconnection withdrawal notice*; and
- (b) ascertain whether the *delivery point* has been *disconnected*, and:
 - (i) if the *delivery point* has been *disconnected* — must *immediately notify* the *user* that the *delivery point* has already been *disconnected* and therefore that the *disconnection withdrawal notice* has been rejected; and
 - (ii) if the *delivery point* has not been *disconnected* — must use reasonable endeavours to stop its *disconnection* and *promptly notify* the *user* that the *disconnection withdrawal notice* has been accepted and whether or not the *delivery point* has been *disconnected*.

{Note: It may not be practicable to respond to a *disconnection withdrawal notice* if the *network operator's* operator is already out in the field.}

Division 3.5.2 There is no division 3.5.2

111. There is no [rule clause 111](#)

Division 3.5.3— *Disconnection confirmation notice to REMCoAEMO*

112. Disconnection confirmation notice

A *disconnection confirmation notice* must specify at least the following information:

- (a) the *MIRN*; and
- (b) the *GBO identification* of the *network operator* lodging the *disconnection confirmation notice*; and
- (c) the date on which the *delivery point* was *disconnected*.

113. Requirements for valid disconnection confirmation notice

A *disconnection confirmation notice* is valid only if:

- (a) the *delivery point* exists within the [REMCeAEMO](#) registry; and
- (b) it is lodged by the *network operator* who has an *active GBO identification*; and
- (c) the *MIRN status* is not *deregistered*; and
- (d) the date on which the *notice* is received is on or after the date on which the *delivery point* was *disconnected*; and
- (e) there is no open *disconnection confirmation notice* or open *permanent removal confirmation notice* for the *delivery point*; and
- (f) the date the *delivery point* was *disconnected* did not occur more than 425 days before the date the *disconnection confirmation notice* was lodged.

114. If disconnection confirmation notice is not valid

Upon receipt of a *disconnection confirmation notice* which is not valid, [REMCeAEMO](#) must *immediately*:

- (a) reject the *disconnection confirmation notice*; and
- (b) *notify* the *network operator* that lodged the *disconnection confirmation notice* that the *disconnection confirmation notice* has been rejected and provide the reason why the *disconnection confirmation notice* is not valid.

{Note: A *network operator* wishing to reinitiate a *disconnection confirmation notice* that has been rejected must lodge a new *disconnection confirmation notice*.}

115. If [REMCeAEMO](#) does not receive valid metering data

- (1) If [REMCeAEMO](#) does not receive valid *metering data* in accordance with [rule clause 107\(3\)\(e\)](#) (as applicable) within 2 *business days* of receiving a valid *disconnection confirmation notice* lodged under either [rule clause 107\(3\)\(d\)](#) in respect of the same *delivery point*, [REMCeAEMO](#) must *notify* the *network operator* of this fact.
- (2) If [REMCeAEMO](#) does not receive valid *metering data* referred to in [rule clause 115\(1\)](#) within 7 *business days* of the date the valid *disconnection confirmation notice* is received by [REMCeAEMO](#), then [REMCeAEMO](#) must:
 - (a) as soon as practicable *cancel* the *disconnection confirmation notice*; and
 - (b) *promptly notify* the *network operator* that lodged the *disconnection confirmation notice* that the *disconnection confirmation notice* has been cancelled and the reason for the cancellation.

{Note: A *network operator* wishing to reinitiate a *disconnection confirmation notice* that has been cancelled must lodge a new *disconnection confirmation notice*.}

116. If disconnection confirmation notice is valid and valid metering data has been received

- (1) Subject to [rule clause 116\(2\)](#), upon receipt of both a valid *disconnection confirmation notice* lodged under [rule clause 107\(3\)\(d\)](#) and valid *metering data* in accordance with [rule clause 107\(3\)\(e\)](#) (as applicable), [REMCoAEMO](#) must:

- (a) forthwith accept the *disconnection confirmation notice*; and
- (b) promptly notify the network operator that the *disconnection confirmation notice* has been accepted.

{Note: Upon accepting a valid *disconnection confirmation notice* under [rule clause 116\(1\)](#) and receiving valid *metering data* in accordance with [rule clause 107\(3\)\(e\)](#) (as applicable), [REMCoAEMO](#) must update the [REMCoAEMO](#) registry under [rule clause 51\(b\)](#) by changing the *MIRN status* to *decommissioned* and provide the user and network operator with the [REMCoAEMO](#) standing data for the *delivery point* under [rule clause 53](#).}

- (2) Before accepting a valid *disconnection confirmation notice* under [rule clause 116\(1\)](#), if:

- (a) in respect of the same *delivery point* there is an open *reconnection confirmation notice* when [REMCoAEMO](#) receives a valid *disconnection confirmation notice* and valid *metering data* as referred to under [rule clause 116\(1\)](#); and
- (b) the date of *reconnection* in the *reconnection confirmation notice* is the same date as the date of *disconnection* in the *disconnection confirmation notice*,

then, upon receiving valid *metering data* in accordance with [rule clause 107\(3\)\(e\)](#) (as applicable), [REMCoAEMO](#) must:

- (a) cancel both the open *reconnection confirmation notice* and the *disconnection confirmation notice*; and
- (b) notify the network operator that the *reconnection confirmation notice* and the *disconnection confirmation notice* have been cancelled.

{Note: Due to [REMCoAEMO](#) cancelling both the open *reconnection confirmation notice* and the *disconnection confirmation notice*, [REMCoAEMO](#) is not required to update the [REMCoAEMO](#) registry under [rule clause 51\(b\)](#) because [REMCoAEMO](#) has not accepted the *disconnection confirmation notice*. Therefore no change will be made in the [REMCoAEMO](#) registry to the *MIRN status* of the *delivery point*. Refer also to corresponding [rule clause 124\(2\)](#).}

Division 3.5.4 – Reconnection by network operator

117. Reconnecting delivery points

- (1) A network operator:
- (a) may *reconnect* a *delivery point* when required to, or if not prevented, by law or a contract other than these [rules procedures](#); and
 - (b) must (subject to law) *reconnect* a *delivery point* if required to under [rule clause 119](#); and

(c) must (subject to law), in response to a deemed request under [rule clause 82\(a\)](#), if a *transfer* has been marked as *pending* by ~~REMC~~[AEMO](#) under [rule clause 100](#) for a *disconnected delivery point*, *reconnect* the *delivery point* either:

- (i) on the *earliest transfer day* nominated in the *transfer request* for the *delivery point*, if the *network operator* receives notification under [rule clause 100\(2\)\(d\)](#) that the *transfer* has been marked as *pending* at least 2 *business days* before *earliest transfer day*; or
- (ii) otherwise, within 2 *business days* after the *network operator* receives notification under [rule clause 100\(2\)\(d\)](#) that the *transfer* has been marked as *pending*.

(2) A user may at any time lodge a *reconnection notice* with a *network operator*.

(3) A *reconnection notice*:

(a) must specify at least the following information:

- (i) the *MIRN*; and
- (ii) the *user's GBO identification*; and

(b) if the *user* chooses — may specify the *service order reference*.

(4) A *reconnection notice* is valid only if:

- (a) the *MIRN status* is *decommissioned*; and
- (b) it is lodged by the *current user*; and
- (c) the *delivery point* is in the *network operator's sub-network*.

(5) If a *reconnection notice* was not lodged on a *business day*, then the *network operator* must respond to the *reconnection notice* no later than on the next *business day* as if the *reconnection notice* was lodged on that *business day*.

118. If reconnection notice is not valid

Upon receipt of a *reconnection notice* which is not valid, subject to [rule clause 117\(5\)](#), the *network operator* must *immediately*:

- (a) reject the *reconnection notice*; and
- (b) *notify* the *participant* that lodged the *reconnection notice* that the *reconnection notice* has been rejected and provide the reason why the *reconnection notice* is not valid.

119. If reconnection notice is valid

(1) Upon receipt of a valid *reconnection notice*, subject to [rule clause 117\(5\)](#), a *network operator* must:

- (a) forthwith accept the *reconnection notice*; and
 - (b) *immediately notify* the user that the *reconnection notice* has been accepted.
- (2) A *network operator* must (subject to law) at the same time, within 2 *business days* after receiving a valid *reconnection notice*, *reconnect* the *delivery point* and undertake a *meter reading* of, and obtain the *meter reading data* for, the *delivery point*.
- (3) Within 2 *business days* of *reconnecting* a *delivery point* under [rule clause 117\(1\)](#) or 119(2), the *network operator* must:
- (a) calculate the *actual value* for the *delivery point* using the information obtained under [rule clause 119\(2\)](#); and
 - (b) change the *MIRN status* in its *MIRN database* to *commissioned*; and
 - (c) *notify* the user that the *MIRN* is *commissioned* and provide the user with the *metering data* under [rule clause 158](#) for the *meter reading* undertaken in accordance with [rule clause 119\(2\)](#).
 - (d) lodge a *reconnection confirmation notice* with [REMCeAEMO](#); and
 - (e) provide [REMCeAEMO](#) with the *metering data* under [rule clause 158](#) for the *meter reading* undertaken in accordance with [rule clause 119\(2\)](#).

Division 3.5.5 – Reconnection confirmation notice to [REMCeAEMO](#)

120. Reconnection confirmation notice

A *reconnection confirmation notice* must specify at least the following information:

- (a) the *MIRN*; and
- (b) the *GBO identification* of the *network operator* lodging the *notice*; and
- (c) the date on which the *delivery point* was *reconnected* again.

121. Requirements for valid reconnection confirmation notice

A *reconnection confirmation notice* is valid only if:

- (a) the *delivery point* exists within the [REMCeAEMO](#) registry; and
- (b) it is lodged by the *network operator* who has an *active GBO identification*; and
- (c) the *MIRN status* is not *deregistered*; and
- (d) the date on which the *reconnection confirmation notice* is received is on or after the date on which the *delivery point* was *reconnected*; and
- (e) there is no open *reconnection confirmation notice* or open *permanent removal confirmation notice*; and

- (f) the date the *delivery point* was *reconnected* did not occur more than 425 days before the date the *reconnection confirmation notice* was lodged.

122. If reconnection confirmation notice is not valid

Upon receipt of a *reconnection confirmation notice* which is not valid, **REMCeAEMO** must *immediately*:

- (a) reject the *reconnection confirmation notice*; and
- (b) *notify* the *network operator* that lodged the *reconnection confirmation notice* that the *reconnection confirmation notice* has been rejected and provide the reason why the *reconnection confirmation notice* is not valid.

{Note: A *network operator* wishing to reinitiate a *reconnection confirmation notice* that has been rejected must lodge a new *reconnection confirmation notice*.}

123. If **REMCeAEMO** does not receive valid metering data

- (1) If **REMCeAEMO** does not receive valid *metering data* in accordance with **ruleclause** 119(3)(e) within 2 *business days* of receiving a valid *reconnection confirmation notice* lodged under **ruleclause** 119(3)(d) in respect of the same *delivery point*, **REMCeAEMO** must *notify* the *network operator* of this fact.
- (2) If **REMCeAEMO** does not receive valid *metering data* referred to in **ruleclause** 123(1) within 7 *business days* of the date the valid *reconnection confirmation notice* is received by **REMCeAEMO**, then **REMCeAEMO** must:
 - (a) as soon as practicable *cancel* the *reconnection confirmation notice*; and
 - (b) *promptly notify* the *network operator* that lodged the *reconnection confirmation notice* that the *reconnection confirmation notice* has been cancelled and the reason for the cancellation.

{Note: A *network operator* wishing to reinitiate a *reconnection confirmation notice* that has been cancelled must lodge a new *reconnection confirmation notice*.}

124. If reconnection confirmation notice is valid and valid metering data has been received

- (1) Subject to **ruleclause** 124(2), upon receipt of both a valid *reconnection confirmation notice* lodged under **ruleclause** 119(3)(d) and valid *metering data* in accordance with **ruleclause** 119(3)(e), **REMCeAEMO** must:
 - (a) forthwith accept the *reconnection confirmation notice*; and
 - (b) *promptly notify* the *network operator* that the *reconnection confirmation notice* has been accepted.

{Note: Upon accepting a valid *reconnection confirmation notice* under **ruleclause** 124 and receiving valid *metering data* in accordance with **ruleclause** 119(3)(e), **REMCeAEMO** must update the **REMCeAEMO** registry under **ruleclause** 51(c) by changing the *MIRN* status to *commissioned* and provide the *user* and *network operator* with the **REMCeAEMO** standing data for the *delivery point* under **ruleclause** 53.}

- (2) Before accepting a valid *reconnection confirmation notice* under **ruleclause** 124(1), if:

- (a) in respect of the same *delivery point* there is an open *disconnection confirmation notice* when ~~REMC~~*oAEMO* receives a valid *reconnection confirmation notice* and valid *metering data* as referred to under ~~rule~~*clause* 124(1); and
- (b) the date of *disconnection* in the *disconnection confirmation notice* is the same date as the date of *reconnection* in the *reconnection confirmation notice*,

then, upon receiving valid *metering data* in accordance with ~~rule~~*clause* 119(3)(e), ~~REMC~~*oAEMO* must:

- (c) *cancel* both the open *disconnection confirmation notice* and the *reconnection confirmation notice*; and
- (d) *notify* the *network operator* that the *disconnection confirmation notice* and the *reconnection confirmation notice* have been cancelled.

{Note: Due to ~~REMC~~*oAEMO* cancelling both the open *disconnection confirmation notice* and the *reconnection confirmation notice*, ~~REMC~~*oAEMO* is not required to update the ~~REMC~~*oAEMO* registry under ~~rule~~*clause* 51(c) because ~~REMC~~*oAEMO* has not accepted the *reconnection confirmation notice*. Therefore no change will be made in the ~~REMC~~*oAEMO* registry to the *MIRN* status of the *delivery point*. Refer also to corresponding ~~rule~~*clause* 116(2).}

Part 3.6 – Removing delivery points and deregistering MIRNs

Division 3.6.1 – Permanent removal by network operator

125. Permanently removing delivery points

- (1) A *network operator*:
 - (a) may *permanently remove* a *delivery point* when required to, or if not prevented, by *law* or a contract other than these ~~rules~~*procedures*; and
 - (b) must (subject to *law*) *permanently remove* a *delivery point* if required to under this ~~rule~~*clause* 125.
- (2) Subject to ~~rule~~*clause* 125(3), a *user* may at any time lodge a *permanent removal request* with the *network operator*.
- (3) A *user* must not lodge a *permanent removal request* more than 20 *business days* before the date on which the *user* requires the *delivery point* to be *permanently removed*.
- (4) A *permanent removal request*:
 - (a) must specify at least the following information:
 - (i) the *MIRN*; and
 - (ii) the *user's GBO identification*; and
 - (iii) the earliest date that the *delivery point* can be *permanently removed*; and
 - (b) if the *user* chooses — may specify the *service order reference*.

- (5) A *permanent removal request* is valid only if:
- (a) the *MIRN status* is *commissioned* or *decommissioned*; and
 - (b) it relates to a *delivery point* in the *network operator's sub-network*; and
 - (c) it is lodged by the *current user*; and
 - (d) it is lodged within the time period allowed under [rule clause 125\(3\)](#).
- (6) If a *permanent removal request* was not lodged on a *business day*, then the *network operator* must respond to the *permanent removal request* no later than on the next *business day* as if the *permanent removal request* was lodged on that *business day*.

126. If permanent removal request is not valid

Upon receipt of a *permanent removal request* which is not valid, subject to [rule clause 125\(6\)](#), a *network operator* must *immediately*:

- (a) reject the *permanent removal request*; and
- (b) *notify* the *participant* that lodged the *permanent removal request* that the *permanent removal request* has been rejected and provide the reason why the *permanent removal request* is not valid.

{Note: A user wishing to reinitiate a *permanent removal request* that has been *cancelled* must lodge a new *permanent removal request*.}

127. If permanent removal request is valid

- (1) Upon receipt of a valid *permanent removal request*, subject to [rule clause 125\(6\)](#), a *network operator* must (subject to *law*):
- (a) forthwith accept the *permanent removal request*; and
 - (b) *immediately notify* the *user* that the *permanent removal request* has been accepted; and
 - (c) *permanently remove* the *delivery point* and, if there is a *meter* installed at the *delivery point*, at the same time undertake a *meter reading* of, and obtain the *meter reading data* for, the *delivery point*, on the later of:
 - (i) the date requested by the *user* under [rule clause 125\(4\)\(a\)\(iii\)](#); or
 - (ii) 5 *business days* after receiving the *permanent removal request*.

{Note: The reason that there may not be a *meter* installed at the *delivery point* is that it may previously have been removed in the course of a disconnection.}

- (2) As soon as practicable after a *delivery point* has been *permanently removed* under [rule clause 125\(1\)](#) or [rule clause 127\(1\)\(c\)](#), and in any event within 5 *business days*, the *network operator* must:
- (a) calculate the *actual value* for the *delivery point* using the information obtained under [rule clause 127\(1\)\(c\)](#); and

- (b) change the *MIRN status* to *deregistered*; and
- (c) *notify the user* that the *delivery point* has been *permanently removed*; and
- (d) lodge a *permanent removal confirmation notice* with ~~REMC~~CoAEMO; and
- (e) provide ~~REMC~~CoAEMO and the *user* with the *metering data* under ~~rule~~clause 158 from, as applicable:
 - (i) the *meter reading* undertaken under ~~rule~~clause 127(1)(c); or
 - (ii) if there was no meter installed at the *delivery point*, the *meter reading* undertaken under ~~rule~~clause 107(2) when the meter was removed.

Division 3.6.2 – Permanent removal confirmation notice to ~~REMC~~CoAEMO

128. Permanent removal confirmation notice

A *permanent removal confirmation notice* must specify at least the following information:

- (a) the *MIRN*; and
- (b) the *GBO identification* of the *network operator* lodging the *notice*; and
- (c) the date on which the *delivery point* was *permanently removed*.

129. Requirements for valid permanent removal confirmation notice

A *permanent removal confirmation notice* is valid only if:

- (a) the *delivery point* exists within the ~~REMC~~CoAEMO registry; and
- (b) it is lodged by the *network operator* who has an *active GBO identification*; and
- (c) the *MIRN status* is *commissioned* or *decommissioned*;
- (d) the date on which the *notice* is received is on or after the date on which the *delivery point* was *permanently removed*; and
- (e) the date the *delivery point* was *permanently removed* did not occur more than 425 days before the date the *permanent removal confirmation notice* was lodged.

130. If permanent removal confirmation notice is not valid

Upon receipt of a *permanent removal confirmation notice* which is not valid, ~~REMC~~CoAEMO must *immediately*:

- (a) reject the *permanent removal confirmation notice*; and
- (b) *notify the network operator* that lodged the *permanent removal confirmation notice* that the *permanent removal confirmation notice* has been rejected and provide the reason why the *permanent removal confirmation notice* is not valid.

{Note: A network operator wishing to reinitiate a permanent removal confirmation notice that has been rejected must lodge a new permanent removal confirmation notice.}

131. If REMCoAEMO does not receive valid metering data

- (1) If REMCoAEMO does not receive valid *metering data* in accordance with ruleclause 127(2)(e) within 5 *business days* of receiving a valid *permanent removal confirmation notice* lodged under ruleclause 127(2)(c) in respect of the same *delivery point*, REMCoAEMO must *notify* the *network operator* of this fact.
- (2) If REMCoAEMO does not receive valid *metering data* referred to in ruleclause 131(1) within 10 *business days* of the date the valid *permanent removal confirmation notice* is received by REMCoAEMO, then REMCoAEMO must:
 - (a) as soon as practicable *cancel* the *permanent removal confirmation notice*; and
 - (b) *promptly notify* the *network operator* that lodged the *permanent removal confirmation notice* that the *permanent removal confirmation notice* has been cancelled and the reason for the cancellation.

{Note: A network operator wishing to reinitiate a permanent removal confirmation notice that has been cancelled must lodge a new permanent removal confirmation notice.}

132. If permanent removal confirmation notice is valid and valid metering data has been received

Upon receipt of both a valid *permanent removal confirmation notice* lodged under ruleclause 127(2)(c) and valid *metering data* in accordance with ruleclause 127(2)(e), REMCoAEMO must:

- (a) forthwith accept the *permanent removal confirmation notice*; and
- (b) *promptly notify* the *network operator* that the *permanent removal confirmation notice* has been accepted.

{Note: Upon accepting a valid permanent removal confirmation notice under ruleclause 132 and receiving valid metering data in accordance with ruleclause 127(2)(e), REMCoAEMO must update the REMCoAEMO registry under ruleclause 51(d) by changing the *MIRN status* to *deregistered* and provide the user and network operator with the REMCoAEMO standing data for the *delivery point* under ruleclause 53.}

Division 3.6.3 – Deregistering MIRNs

133. Effect of permanent removal

- (1) Upon accepting a valid *permanent removal confirmation notice* under ruleclause 132, REMCoAEMO must:
 - (a) forthwith cancel all *open transactions* in respect of the *delivery point*; and
 - (b) *promptly notify* all affected parties of the *cancellation*.
- (2) Subject to Division 2.2.3, a *MIRN* with a *MIRN status* of *deregistered* must never be given another *MIRN status*.

{Note: [RuleClause](#) 133(2) renders irreversible the process of removing a *delivery point* and deregistering a *MIRN*, except if a valid *error correction notice* has been accepted by [REMCeAEMO](#) under [ruleclause](#) 35(a) in respect of an incorrect *permanent removal confirmation notice*. If no valid *error correction notice* has been accepted by [REMCeAEMO](#), then if gas supply is to be recommenced at the *delivery address*, a new *MIRN* must be assigned.}

Chapter 4 – Metering

Part 4.1 – Metering Equipment

134. Network operator must provide meters

- (1) A *network operator* must provide, install, operate and *maintain* a *meter* at each *delivery point* within its *GDS* in accordance with all applicable *laws*.
- (2) Upon installation of a *meter* at a *delivery point* under [rule clause 134\(1\)](#), the *network operator* must provide the *user* with the *meter standing data* and *MIRN standing data* for the *delivery point* before providing the *metering data* under [rule clause 158](#).

135. Basic meters

A *network operator* must as a *reasonable and prudent person* ensure that a *basic meter* remains at all times capable of aggregating the flow of gas across time.

136. Units for basic meters

A *basic meter* must be calibrated so that each unit of its *index reading* equates to a gas delivery of either:

- (a) if the *meter* is a metric one, one actual cubic metre (that is, a cubic metre not corrected for altitude, temperature or pressure); or
- (b) if the *meter* is an imperial one, one hundred actual cubic feet (that is, cubic feet not corrected for altitude, temperature or pressure).

{Note: The conversion between metric and imperial units is dealt with in [rule clause 6](#).}

137. Interval meters

A *network operator* must as a *reasonable and prudent person* ensure that an *interval meter* remains:

- (a) capable of being read by means of *telemetry* in order to satisfy the requirements of these [rules procedures](#); and
- (b) at all times capable of aggregating the flow of gas across time, and recording that flow for each hour.

138. Network operator to identify sites which consumed more than 10 TJ/a

- (1) There is no [rule clause 138\(1\)](#).
- (2) The *network operator* must, at least once every 6 months, assess each *basic-metered delivery point* in each of its *sub-networks* to determine whether the quantity of gas delivered to the *delivery point* in the year immediately preceding the day of assessment exceeded 10 TJ, and if so the *network operator* must *notify* [REMC](#) [AEMO](#) and the *user* of its assessment and of the quantity of gas delivered during the year in respect of those *basic-metered delivery points* where the quantity of gas delivered to the *delivery point* exceeded 10 TJ.

139. REMCoAEMO to determine whether interval meter must be fitted at a basic-metered site

- (1) There is no [ruleclause](#) 139(1).
- (2) The object of this [ruleclause](#) 139 is to ensure that each *delivery point* at which the *customer's* consumption of gas is greater than 10 TJ a year has an *interval meter* fitted, in order to ensure that the allocation regime in Part 5.6 operates equitably.
- (3) If the *network operator* gives *notice* under [ruleclause](#) 138 in respect of a *delivery point*, then within 2 months after the date of that *notice* [REMCoAEMO](#) must:
 - (a) consult with the *user* regarding its likely future gas demand at the *delivery point*; and
 - (b) make an “**above 10 TJ determination**”, if in [REMCoAEMO's](#) opinion the gas deliveries to the *delivery point* are likely to exceed 10 TJ in the year immediately following the day of determination, and otherwise make a “**below 10 TJ determination**”; and
 - (c) *promptly notify* the *user* of [REMCoAEMO's](#) determination under [ruleclause](#) 139(3)(b).
- (4) If [REMCoAEMO](#) makes an *above 10 TJ determination* under [ruleclause](#) 139(3)(b), then the *user* must initiate the procedure for the installation of an *interval meter* in accordance with these [rules/procedures](#) and its other obligations including its *haulage contract*.
- (5) The *user* must comply with [ruleclause](#) 139(4) as quickly as reasonably practicable and in any event within 10 *business days*, unless the *user* appeals [REMCoAEMO's](#) determination to the *compliance panel* under [ruleclause](#) 331, in which case Chapter 6 applies, and if the determination of the *compliance panel* leaves the *user* still obliged to comply with [ruleclause](#) 139(4), it must do so as quickly as reasonably practicable, and in any event within 10 *business days*, after the date of the determination.

140. REMCoAEMO to determine whether a delivery point may be converted to a basic-metered delivery point as a result of a reduction in gas usage

- (1) There is no [ruleclause](#) 140(1).
- (2) If a *user* believes that its *customer* is not likely to consume more than 10 TJ of gas in a 12 month period at an *interval-metered delivery point*, the *user* may request [REMCoAEMO](#) to determine that it would be consistent with the object in [ruleclause](#) 139(1) for the *user* to no longer have an *interval meter* at the *delivery point*, in which case [REMCoAEMO](#) must:
 - (a) consult with the *user* regarding its likely future gas demand; and
 - (b) make an “**above 10 TJ determination**”, if in [REMCoAEMO's](#) opinion the gas deliveries to the *delivery point* are likely to exceed 10 TJ in the year immediately following the day of determination, and otherwise make a “**below 10 TJ determination**”; and

(c) promptly notify the user of [REMCeAEMO](#)'s determination under [ruleclause 140\(2\)\(b\)](#).

(3) If [REMCeAEMO](#) makes a *below 10 TJ determination* under [ruleclause 140\(2\)\(b\)](#) then the user may negotiate with the *network operator* regarding the conversion of the *interval meter* to a *basic meter* under its *haulage contract*.

{Note: The user must continue to pay for the cost of the *interval meter* through the user-specific charges under its *haulage contract*, if required by the terms of its *haulage contract*.}

~~{Note: This rule allows those customers who were required under the "Interim Market Rules for 1 TJ and above Customers" dated 17 December 2001 Rules (copies available from the Office of Energy) to have an *interval meter* installed, but are consuming less than 10 TJ of gas in a 12 month period, to request their user to arrange for the removal of the *interval meter*.}~~

(4) After removing an *interval meter*, a *network operator* must provide the user with the *meter standing data* and *MIRN standing data* for the *delivery point* before providing the *metering data* under [ruleclause 158](#).

141. Metering upgrades

(1) If a user requests a *network operator* to upgrade a *basic meter* at a *delivery point* to an *interval meter*, the *network operator* must upgrade that *meter* (and any associated data retrieval infrastructure) within 20 *business days* after the day on which the request was delivered to the *network operator*, or as agreed with the user, but taking into account:

- (a) access to the *meter* being sufficient to install the *interval meter*. The *network operator* must inform the user of any access difficulties; and
- (b) other site constraints, including confined spaces, being resolved.

(2) If a user is required to initiate the procedure for the installation of an *interval meter* under [ruleclause 139\(4\)](#) and does not request a *network operator* to install the *interval meter* under [ruleclause 141\(1\)](#), then (subject to [ruleclause 141\(6\)](#)) the *current user* must:

- (a) advise the *network operator* that the user has made other arrangements for the installation of the *interval meter*; and
- (b) ensure that the *interval meter* (and any associated data retrieval infrastructure) is installed within 20 *business days* after the day on which the user initiates the procedure for the installation of the *interval meter* under [ruleclause 139\(4\)](#), or as otherwise agreed with the person installing the *interval meter*, but taking into account:
 - (i) access to the *meter* being sufficient to install the *interval meter*; and
 - (ii) other site constraints, including confined spaces, being resolved; and
- (c) notify the *network operator* after the *interval meter* has been installed.

{Note: The processes of updating the *MIRN database* and the [REMCeAEMO registry](#) after a *meter* upgrade are dealt with in [ruleclause 62](#) and Division 2.2.2 respectively. Under [ruleclause 62](#) the *network operator* remains responsible for updating the *MIRN database*, regardless of who undertakes the *meter* installation.}

- (3) Within 2 *business days* after receipt of notification under [rule clause 141\(2\)\(c\)](#) that an *interval meter* has been installed, the *network operator* must commission the *interval meter* in accordance with all applicable laws.
- (4) After either installing an *interval meter* under [rule clause 141\(1\)](#) or commissioning an *interval meter* under [rule clause 141\(3\)](#) at a *delivery point*, a *network operator* must provide the *user* with the *meter standing data* and (subject to [rule clause 141\(6\)](#)) *MIRN standing data* for the *delivery point* before providing the *metering data* under [rule clause 158](#).
- (5) There is no [rule clause 141\(5\)](#)
- (6) Nothing in this [rule clause 141](#) permits a *user* to do anything it is not permitted by *law* or a contract other than these [rules procedures](#) to do.

Part 4.2 – Meter reading requirements

Division 4.2.1 – Interval meters

142. Interval meters to be read daily

For each *interval meter*, the *network operator* must obtain the *meter reading data* for a *gas day* daily after the end of the *gas day*.

Division 4.2.2 – Basic meters – scheduled meter readings

143. Basic meters to be read in accordance with meter reading schedule

- (1) For each *basic-metered delivery point*, a *network operator* must:
 - (a) undertake a *meter reading* of the *delivery point*; and
 - (b) receive the *meter reading data* into its *network information system*,on the date assigned to the *reading day number* for the *delivery point*, unless the *network operator* and the *user* otherwise agree.
- (2) The date on which a *network operator* receives the *meter reading data* under [rule clause 143\(1\)\(b\)](#) must be no more than 3 *business days* after the date assigned to the *reading day number* for the *delivery point*, unless the *network operator* and the *user* otherwise agree.
- (3) ~~Within 36 months after the go-live date each network operator must, in consultation with participants and to the standard of a reasonable and prudent person, review its data management systems to determine if they require upgrading to render them capable of accepting meter reading data for part only of a meter reading route and provide the outcome of that review to participants~~ [There is no clause 143\(3\)](#).

144. Network operator to establish meter reading schedules

- (1) A *network operator* must:

- (a) by 31 August each year — provide each *user* with the *meter reading schedule* for each *GDS* in which the *user* has a *haulage contract* for the period commencing on the next 1 January; and
 - (b) upon notification of a newly registered *user* under [ruleclause 22\(2\)\(c\)](#) — provide the *user* with the current *meter reading schedule* for each *GDS* in which the *user* has a *haulage contract*.
- (2) The *meter reading schedule* for a *GDS* must:
- (a) cover a 12 month period starting on 1 January, and;
 - (b) for each *reading day number*, specify the frequency of the *meter read*; and
 - (c) for each *reading day number*, set out the date or dates in the 12 month period on which the *network operator* proposes to read the *meters* whose *MIRNs* are assigned to that *reading day number*.
- (3) Subject to [ruleclause 148](#), the date specified for a *delivery point* under [ruleclause 144\(2\)\(c\)](#) for a *reading day number* must reflect the *meter reading* frequency agreed between the *network operator* and the *user*.

145. Amendments to meter reading schedule

- (1) A *network operator* may amend a *meter reading schedule* at any time, but the *network operator* must as far as practicable:
- (a) consult with each affected *user* before doing so;
 - (b) give each affected *user* at least as much *notice* of the proposed change for a *delivery point*, as the interval under the *meter reading schedule* between two *meter readings* for the *delivery point*; and
 - (c) endeavour to minimise the number of amendments made to a *meter reading schedule* after it has been issued under [ruleclause 144\(1\)](#).
- (2) A *user* for a *delivery point* may at any time request the *network operator* to change the date in a *meter reading schedule* or the frequency of the *meter reading* of a *delivery point*, and the *network operator* must endeavour to comply with all reasonable requests made by a *user* if practicable.

146. There is no [ruleclause 146](#)

Division 4.2.3 – Basic meters – special meter readings

147. Special meter readings (basic meters only)

- (1) A *user* may request the *network operator* to undertake a *special meter reading* of a *basic meter*, on a *business day* specified in the request which is at least 2 *business days* after the day on which the *network operator* receives the request.

{Note: For example, if the request is lodged with a *network operator* at 11.59 pm on Monday, the earliest day on which the *user* can specify the *special meter reading* to be undertaken, is Wednesday. If a request

is lodged with a *network operator* at 10am on Thursday, the earliest day on which the *user* can specify the *special meter reading* to be undertaken, is the following Monday.)

- (2) The *network operator* must undertake a *special meter reading* requested under [rule clause 147\(1\)](#), and obtain the *meter reading data*, on the *business day* specified in the request, (which must be at least 2 *business days* after the day on which the *network operator* receives the request), and must:
 - (a) provide the *metering data* to the *user* under [rule clause 147\(3\)](#); or
 - (b) if the *network operator* was unable to undertake a *special meter reading* — inform the *current user* of this fact and provide the reason why the *meter reading data* could not be obtained.
- (3) If the request under [rule clause 147\(1\)](#) is made by:
 - (a) the *current user* — then the *network operator* must, in accordance with the timing in [rule clause 158](#), provide the *user* with the *metering data* under [rule clause 160](#); and
 - (b) any other *user* — then (subject to [rules clauses 65\(2\)\(a\)\(iii\)](#) and [103\(3\)\(b\)\(ii\)](#)) the *network operator* must not provide the *user* with the *metering data* for the *delivery point* received as a result of undertaking the *special meter reading*.
- (4) Nothing in [rule clause 147\(3\)\(b\)](#) limits the *network operator* from informing the *user* that no *meter reading data* was obtained because the *network operator* was unable to undertake a *special meter reading*.
- (5) To avoid doubt, nothing in [rule clause 147\(3\)](#) (including [rule clause 147\(3\)\(b\)](#)) affects a *user's* liability, if any, to pay for a *special meter reading*.

Division 4.2.4 – Basic meters – deemed meter readings

148. Deemed meter reading (basic meters only)

- (1) If a *meter reading* for a *basic-metered delivery point* that generated an *actual value* was undertaken no more than 10 days before the date of *move in*, then (subject to [rule clause 148\(2\)](#)) on the date of *move in*:
 - (a) the *network operator* must determine a “**deemed meter reading**” which is a *meter reading* deemed to have occurred on the day of the *move in*; and
 - (b) provide the *metering data* from the *deemed meter reading* to [REMC](#) [AEMO](#).
- (2) For the purposes of providing the *metering data* and calculating the *energy value* for a *deemed meter reading*, a *network operator* must use the most recent *index reading* from the *meter reading* which occurred no more than 10 days before the *move in* to calculate the *actual value* under [rule clause 155](#).

Division 4.2.5 – Basic meters – annual meter reading requirement

149. Basic meters to have at least one meter reading that generates an actual value per year

- (1) For each *basic meter*, the *network operator* must undertake a *meter reading* that generates an *actual value* at least once in any 12-month period.
- (2) A *user* must assist a *network operator* to comply with the *network operator's* obligation under [rule clause 149\(1\)](#), including if the *network operator* is unable to access the *meter* to undertake a *meter reading* and obtain the *meter reading data*, by assisting the *network operator* to obtain access to the *meter* at the next *scheduled meter reading* or *special meter reading*.
- (3) There is no [rule clause 149\(3\)](#)
- (4) If the *network operator* has been unable to obtain a *meter reading* for a *basic-metered delivery point* that generates an *actual value* during a 12-month period, then 45 days after the end of the 12-month period, the *network operator* may request the *user* to lodge a *disconnection notice* under [rule clause 105\(2\)](#).
- (5) Unless otherwise agreed with the *network operator* and subject to *law*, a *user* must lodge a *disconnection notice* within 10 *business days* of the *network operator's* request under [rule 149\(4\)](#).
- (6) If a *user* does not lodge a *disconnection notice* within the time specified under [rule clause 149\(5\)](#), the *network operator* may *disconnect* the *delivery point* under [rule clause 107](#) as if the *network operator* had received a valid *disconnection notice* from the *user*.
- (7) Nothing in this [rule clause 149](#) detracts from a *network operator's* obligations to undertake *meter readings* under [rule clause 143](#) and as required by *law* or a contract other than these [rules procedures](#).
- (8) Nothing in this [rule clause 149](#) permits a person to do anything it is not permitted by *law* to do.

Division 4.2.6 – Meter reading by entity other than network operator

150. Meter reading activities by another entity

{Note: These [rules procedures](#) assume that all activities relating to *meter reading*, and *meter reading data*, for *delivery points* are undertaken by the *network operator*. This [rule procedure](#) is included to facilitate changes should that assumption no longer be correct.}

- (1) If a person other than a *network operator* is to undertake activities relating to *meter reading*, or *metering data*, for *delivery points*, then ~~REMC~~[AEMO](#), the *network operator* and all affected *participants* must work cooperatively to agree either or both of:
 - (a) suitable ~~procedures~~[procedures](#) to accommodate the fact; or
 - (b) suitable changes to these [rules procedures](#) for submission under Chapter 9.

- (2) Nothing in this [rule clause](#) 150 permits a person to do anything it is not permitted by law or a contract other than these [rules procedures](#) to do.

Part 4.3 – Gate point metering data

151. Pipeline operators to provide physical gate point metering data

- (1) Subject to [rule clause](#) 151(4), for each *physical gate point* for each *gas day*, the *pipeline operator* must provide to the *network operator* as soon as reasonably practicable after the end of the *gas day*, but in any event, no later than 2.5 hours after the end of the *gas day*, for the *gas day* and each hour in the *gas day*, at least two of the following:

- (a) energy inflow; and
- (b) daily flow weighted average *heating value*; and

(Note: The data for each hour in the *gas day* provided under [rule clause](#) 151(1)(b) will be the daily flow weighted average *heating value*.)

- (c) volumetric inflow.

- (2) Before providing the data under [rule clause](#) 151(1), the *pipeline operator* must ensure that the data does not contain any obvious errors or omissions.
- (3) If a *pipeline operator's physical gate point metering data* is amended at any time after the data is provided under [rule clause](#) 151(1) (including if the data is refined or verified), the *pipeline operator* must provide the amended *physical gate point metering data* to the *network operator* as soon as reasonably practicable.
- (4) A *pipeline operator* is not required to provide the *physical gate point metering data* for a *physical gate point* if:
- (a) less than 10 TJ of gas was *injected* at the *physical gate point* in the immediately preceding 12 month period; and
 - (b) at the commencement of these [rules procedures](#) there was insufficient *telemetry* installed at the *physical gate point* to permit the *physical gate point metering data* to be remotely accessed on a daily basis.

152. Network operator to provide gate point metering data to REMCoAEMO for each gate point

- (1) Subject to [rule clause](#) 152(5) the *network operator* must:
- (a) subject to [rule clause](#) 152(4) aggregate the *physical gate point metering data* provided under [rule clause](#) 151(1), for each of the relevant *gas days* and for each hour in each of the relevant *gas days*, in each case across all *physical gate points* associated with the *sub-network* (the aggregated hourly and daily data being the “*gate point metering data*”); and
 - (b) provide to [REMCoAEMO](#) as soon as reasonably practicable after receiving the *physical gate point metering data* from the *pipeline operator* under [rule clause](#)

151(1), but in any event, no later than 3.5 hours after the end of the gas day the gate point metering data.

- (2) If the *network operator* receives amended *physical gate point metering data* under [rule clause 151\(3\)](#) at any time (including if the data is refined or verified), the *network operator* must as soon as reasonably practicable:
 - (a) aggregate the amended *physical gate point metering data* for each of the *gas days* for which amended *physical gate point metering data* was provided in accordance with [rule clause 152\(1\)\(a\)](#); and
 - (b) provide to [REMCo AEMO](#) the amended *gate point metering data* determined under [rule clause 152\(2\)\(a\)](#).
- (3) If for any reason (including the operation of [rule clause 151\(4\)](#)) the *network operator* does not receive the *physical gate point metering data* within the time specified in [rule clause 151\(1\)](#), then the *network operator* must:
 - (a) as a *reasonable and prudent person*, estimate the *gate point metering data*, for the *gas day* and each hour in the *gas day*, for each *gate point*;
 - (b) there is no clause 152(3)(b);
 - (c) provide the estimate to [REMCo AEMO](#) within 3.5 hours after the end of the *gas day*.
{Note: If after complying with its obligation under [rule clause 152\(1\)](#) or [rule clause 152\(2\)](#) the *network operator* becomes aware of a manifest error in the data it has provided then the *network operator* may notify [REMCo AEMO](#) under [rule clause 301A\(1\)](#).}
- (4) If the *network operator* receives *physical gate point metering data* aggregated across a period of more than one *gas day*, then the *network operator* must, as a *reasonable and prudent person*, apportion the *physical gate point metering data* across each *gas day* in the period for which the *physical gate point metering data* was provided.
- (5) There is no [rule clause 152\(5\)](#).

Part 4.4 – Metering Data

Division 4.4.1 – Verification guidelines for metering data

153. Verification of meter reading data

A *network operator* must verify the *meter reading data* obtained from the *meter* or *meters* at a *delivery point* in accordance with the applicable *verification* guidelines set out in Appendix 2, before providing *metering data* under this Part 4.4.

Division 4.4.2 – Calculation of energy value

154. Energy value

A *network operator* must calculate the *energy value* in accordance with [rules clauses 155 to 157](#), before providing *metering data* under this Part 4.4.

155. Actual values

- (1) A *network operator* must calculate an *actual value* if:
 - (a) the *network operator* has obtained *meter reading data* for the *delivery point* since the previous *meter reading* of the *delivery point*; and
 - (b) the *network operator* is able to verify the *meter reading data* under ~~rule~~[clause 153](#); and
 - (c) the *network operator* does not otherwise suspect an error in the *meter reading data*, the *heating value* or other associated data.
- (2) An “**actual value**” is a value for the total energy quantity of gas delivered at a *delivery point* (in megajoules) during the *metering period*, which is calculated by the *network operator* using *meter reading data* actually obtained from the *meter* or *meters* at the *delivery point*.

156. Estimated values

- (1) A *network operator* must calculate an *estimated value* if any one or more of the following applies in relation to a *scheduled meter reading*:
 - (a) the *network operator* has not obtained *meter reading data* for the *delivery point* since the previous *meter reading* of the *delivery point*; or
 - (b) the *network operator* is unable to verify the *meter reading data*; or
 - (c) the *network operator* otherwise suspects an error in the *meter reading data*, the *heating value* or other associated data.
- (2) An “**estimated value**” is a value for the total energy quantity of gas delivered at a *delivery point* (in megajoules) during the *metering period*, which is calculated by the *network operator* using an estimation methodology set out in ~~section 0 and 0 of~~ Appendix 2.
- (3) If the *network operator* calculates the *energy value* for a *delivery point* based upon an *estimated value*, then:
 - (a) the *network operator* (acting as a *reasonable and prudent person*) may replace the *estimated value* with:
 - (i) a *substituted value*; or
 - (ii) if the *network operator* (acting as a *reasonable and prudent person*) determines that it has grounds for calculating a more *accurate estimated value* — the further *estimated value*;

and

- (b) for the purposes of [rule clause](#) 156(3)(a)(ii), the *network operator* (acting as a *reasonable and prudent person*) must consider any reasonable request from a *current user* for an *estimated value* to be changed.

157. Substituted values

- (1) If at any time a *network operator* determines that there is no possibility of calculating an *actual value* for a *delivery point*, then the *network operator* must designate an *estimated value* for the *delivery point* to be a “**substituted value**” for the *delivery point*.

{Examples: A *substituted value* may be required:

- (a) for a *basic meter*, if the index of the *meter* has become unreadable, or the *meter* is destroyed; and
- (b) for an *interval meter*, if the flow computer or associated *meter* equipment has been destroyed; and
- (c) for an *interval meter*, if the flow computer or associated *meter* equipment is faulty, but not destroyed.}

- (2) If these [rules procedures](#) require the use or provision of an *actual value*, then a *substituted value* may be used or provided instead.

- (3) If the *network operator* has designated a *substituted value* for a *delivery point*, then:

- (a) the *network operator* must:

- (i) repair or replace the *meter*, or one or more of its components (as appropriate) at the *delivery point* under [rule clause](#) 134; and
- (ii) for a *basic meter*, obtain the *meter reading data* then *promptly* provide the reading date and index reading obtained from the *meter reading data* for the *delivery point* to the user and [REMCoAEMO](#); or
- (iii) for an *interval meter*, *promptly* provide the *meter reading data* for the *delivery point* to the user and [REMCoAEMO](#);

and

- (b) [rules clauses](#) 156(3)(a)(ii) and 156(3)(b) apply in respect of the *estimated value* which was designated to be the *substituted value*.

{Note: The *network operator* may provide a further *estimated value* upon which the *substituted value* is based, if requested by the *user* or based upon more *accurate* information.}

Division 4.4.3 – Timing for provision of metering data

158. Time for provision of metering data to current users and [REMCoAEMO](#) – basic and interval meters

- (1) Subject to [rules clauses](#) 158(2) and 159, a *network operator* must provide:
- (a) to the user and [REMCoAEMO](#) (as the case may be) the *metering data* for a *basic-metered delivery point*— by 5.00pm on the *business day* after the *network operator* receives the *meter reading data* (under [rule clause](#) 143 or as a result of a *special meter reading* under [rule clause](#) 147); and

- (b) there is no [rule clause 158\(1b\)](#).
 - (c) to ~~REMC~~[AEMO](#) the *metering data* for an *interval-metered delivery point* — within 3.5 hours after the end of the *gas day* to which the *meter reading* relates; and
 - (d) to the *user* the *metering data* for an *interval-metered delivery point* — within 4.5 hours after the end of the *gas day* to which the *meter reading* relates.
- (2) If the *network operator* (acting as a *reasonable and prudent person*) is not satisfied with its *verification* of the data by the time specified in [rule clause 158\(1\)\(a\)](#), then:
- (a) it must by the time specified in [rule clause 158\(1\)\(a\)](#) provide the data for those *MIRNs* that passed validation; and
 - (b) it is permitted one further *business day* to either *verify* the data for the remaining *MIRNs* and provide *metering data* that contains an *actual value*, an *estimated value* or a *substituted value* (as applicable).
- (3) If a *network operator* determines as a *reasonable and prudent person* that it will not obtain *meter reading data* for even a single *delivery point* on a *meter reading route*, the *network operator* must *notify* each affected *user* of:
- (a) the failure to obtain any *meter reading data*; and
 - (b) the affected *MIRNs*; and
 - (c) the likely ability to provide *metering data* for the *MIRNs* on the *meter reading route*.
- (4) A notification under [rule clause 158\(3\)](#) must be given as soon as the *network operator* makes the determination under [rule clause 158\(3\)](#), and in any event must be given before *close of business* on the next *business day* after the determination is made.

159. Changes to MIRN standing data and meter standing data relevant to calculations

If, in relation to a *delivery point*, any of the following information changes:

- (a) the *MIRN status*; and
- (b) the *meter number*; and
- (c) the *meter type*; and
- (d) the *index type*; and
- (e) the *gas zone code*; and
- (f) the *pressure correction factor*; and
- (g) for a *basic meter* — the number of dials,

then, the *network operator* must provide at least the updated item of *MIRN standing data* or *meter standing data* (as applicable) to the *user*, before providing the *metering data* under [rule clause 158](#).

Division 4.4.4 – Content of metering data

160. Metering data for current users – basic and interval meters

- (1) For each occasion on which these [rules procedures](#) require a *network operator* to provide a *current user* with *metering data* for a *basic-metered delivery point*, (except where the *user* has become the *current user* as a result of a *transfer* taking effect under [rule clause 103\(1\)\(c\)](#)) it must provide at least the following:

- (a) *MIRN*; and
- (b) *meter type*; and
- (c) date of the previous *meter reading*; and
- (d) date of current *meter reading*; and

{Note: For a *move-in*, this may be the date on which the *deemed meter reading* is deemed to have occurred by [rule clause 148](#).}

- (e) *index reading* of the previous *meter reading*; and
 - (f) current *index reading*; and
 - (g) *pressure correction factor*; and
 - (h) *energy value type*; and
 - (i) *heating value* used to calculate the *energy value* under [rule clause 160\(1\)\(j\)](#); and
 - (j) *energy value*; and
 - (k) next *scheduled meter reading date*.
- (2) For each occasion on which these [rules procedures](#) require a *network operator* to provide a *current user* with *metering data* for an *interval-metered delivery point*, it must provide at least the following:
- (a) *MIRN*; and
 - (b) *meter type*;
 - (c) date of current *meter reading*; and
 - (d) *energy value type*; and
 - (e) the *heating value* used for the *gas day* to calculate the *energy value* of gas delivered; and
 - (f) for each hour in the *gas day*, the *energy value*; and

- (g) the *energy value*.

161. Metering data for new connections – basic meters

For a *new connection* of a *basic-metered delivery point* under [rule clause 65](#), the *network operator* must provide the *user* with at least the following *metering data*:

- (a) *MIRN*; and
- (b) *meter type*;
- (c) date of current *meter reading*; and

{Note: This may be the date on which the *deemed meter reading* is deemed to have occurred by [rule clause 148](#).}

- (d) current *index reading*; and
- (e) *pressure correction factor*; and
- (f) next *scheduled meter reading date*.

162. Metering data for [REMCoAEMO](#) – basic and interval meters

For each occasion on which these [rules procedures](#) require a *network operator* to provide [REMCoAEMO](#) with *metering data*, it must provide at least the following (as applicable):

- (a) the *MIRN*; and
- (b) date of the previous *meter reading*; and
 - {Note: For an *interval meter*, the date of the previous *meter reading* will be the previous *gas day*.}
- (c) date of current *meter reading*; and
- (d) *energy value type*; and
- (e) for a *basic-metered delivery point* — the *energy value*; and
- (f) for an *interval-metered delivery point*:
 - (i) for each hour in the *gas day*, the *energy value*; and
 - (ii) the *energy value*.

Division 4.4.5 – [REMCoAEMO](#) validation of metering data

163. Requirements for valid provision of metering data to [REMCoAEMO](#)

Provision of *metering data* to [REMCoAEMO](#) under [rule clause 158](#) is valid only if:

- (a) the *delivery point* exists within the [REMCoAEMO](#) registry; and
- (b) it is provided by the *network operator* who has an *active GBO identification*; and

- (c) the *energy value* is a positive number; and
- (d) the start and end dates of the *metering period* are valid calendar dates; and
- (e) the start date of the *metering period* occurs before the end date of the *metering period*; and
- (f) the start date of the *metering period* is:
 - (i) the same date as the date of end of the previous *metering period* for which **REMCeAEMO** received *metering data*; or
 - (ii) if there was no previous *metering period*, the same date as the *MIRN* became *commissioned* as recorded in the **REMCeAEMO** registry under **ruleclause** 51(a); or
 - (iii) the same date as the start date of the previous *metering period* for which **REMCeAEMO** received *metering data* and the end date of the current *metering period* is also the same as the end date of the previous *metering period*, if **ruleclause** 164 applies; or
 - (iv) the same date as the start date of the previous *metering period* for which **REMCeAEMO** received *metering data*, but the end date of the current *metering period* is later than the end date of the previous *metering period*.

{Note: For the purposes of **ruleclause** 163 the start and end dates of a *metering period* are the dates upon which a *meter reading* is taken (bearing in mind that the *meter reading* is deemed by **ruleclause** 5 to have occurred at the start of the *gas day*). For example, if a *meter reading* is taken at 1100 hours on 5 February and then another *meter reading* is taken at 1600 hours on 8 March and another at 0900 hours on 12 April, then:

 - (a) the start date of the first *metering period* is 5 February and the end date is 8 March (and the *metering data* for this *metering period* includes gas consumed on the 7 March *gas day* but not gas consumed on the 8 March *gas day*); and
 - (b) the start date of the second *metering period* is 8 March and the end date is 12 April (and the *metering data* includes gas consumed on the 11 April *gas day* but not gas consumed on the 12 April *gas day*.)
- (g) the *metering period* is 425 or less days old; and
- (h) the *metering period* does not cover any period of time during which the *MIRN* was *deregistered*.

164. Replacement of metering data in **REMCeAEMO** registry according to energy value types

If **REMCeAEMO** receives *metering data* under **ruleclause** 162 for a *delivery point* more than once for the same *metering period*, **REMCeAEMO** must replace the *metering data* in the **REMCeAEMO** registry if it receives *metering data* for a previous *metering period* that contains a better quality *energy value* as determined in accordance with the following:

- (a) an *estimated value* may be replaced by any other *energy value*; and

- (b) an *actual value* may be replaced by another *actual value* or a *substituted value*; and
- (c) a *substituted value* may be replaced by another *substituted value*.

165. If metering data is not valid

Upon receipt of *metering data* under [rule clause 158](#) which is not valid, [REMCo AEMO](#) must *immediately*:

- (a) reject the *metering data*; and
- (b) *notify* the *network operator* that lodged the *metering data* that it has been rejected and provide the reason why the *metering data* is not valid.

{Note: A *network operator* must re-send the *metering data* to [REMCo AEMO](#) to comply with its obligations under [rule clause 158](#).}

166. If metering data is valid

Upon receipt of a *metering data* under [rule clause 158](#) that is valid, [REMCo AEMO](#) must:

- (a) forthwith accept the *metering data*; and
- (b) *promptly notify* the *network operator* that the *metering data* has been accepted.

Division 4.4.6 – Historical metering data

166A. Explicit informed consent required

- (1) Before lodging a request with a *network operator* for historical metering data or historical meter reading data for a delivery point that relates to a period for which the user was not the current user, a user must obtain the customer's explicit informed consent to the receipt by the user of the requested data.

{Note: The *user* should ensure that the *customer's* consent extends to all actions the *user* may need to undertake to complete the request for the *historical metering data* or *historical meter reading data*.}

- (2) If at any time before the *network operator* has provided information to a *user* under [rule clause 167\(4\)](#), a *customer's explicit informed consent* under [rule clause 166A\(1\)](#) ceases to apply (for example because it is withdrawn), then the *user* must withdraw the request to the extent that the request relied upon the *customer's explicit informed consent*.
- (3) If at any time after the *network operator* has provided information to a *user* under [rule clause 167\(4\)](#), a *customer's explicit informed consent* under [rule clause 166A\(1\)](#) ceases to apply (for example because it is withdrawn), then the *user* must not use the information for any purpose and must to the extent reasonably practicable delete all copies of the information.

167. Provision of historical metering data to user on request

- (1) Subject to [rule clause 167\(2\)](#), a *user* may request a *network operator* to provide it with either or both of:
 - (a) *historical metering data*; or
 - (b) *historical meter reading data*,for one or more of the *user's delivery points* for a period specified in the request.
- (2) By lodging a request under [rule clause 167\(1\)](#), the *user* represents and warrants to the *network operator* that either:
 - (a) the requested data relates only to a period for which the *user* was the *current user*, or
 - (b) that the *user* has complied with [rule clause 166A\(1\)](#).
{Note: Under [rule clause 376A\(2\)](#), a breach of this warranty will expose the user to liability for more than just direct damage.}
- (3) The *user* makes the warranty in [rule clause 167\(2\)](#) anew on each day that the request under [rule clause 167\(1\)](#) is *open*.
- (4) Upon receipt of a reasonable request under [rule clause 167\(1\)](#), and provided that the *user* has not withdrawn the request under [rule clause 167\(5\)](#), a *network operator* must provide the requested data to the *user* within 5 *business days*.
- (5) A *user* may at any time before receiving the requested data under [rule clause 167\(4\)](#), withdraw the request made under [clause 167\(1\)](#) by *notifying the network operator*.
- (6) For the purposes of [rule clause 167\(4\)](#), reasonableness is to be judged having regard to the aggregate impact on the *network operator* of all of the *user's* requests from time to time under [rule clause 167\(1\)](#).
- (7) The purpose of [rule clause 167\(1\)\(a\)](#) is for the *network operator* to assist a *user* to restore or *maintain* the *user's* databases; it is not intended that the *network operator* in effect act as an archivist for the *user*.
- (8) The purpose of [rule clause 167\(1\)\(b\)](#) is to give the *user* access to raw *meter reading data* as reasonably required.

168. Archived historical metering data and historical meter reading data

- (1) A *network operator* must *maintain* or archive previous *metering data* for each *delivery point* in its *GDS*:
 - (a) in a readily accessible format for at least two years; and
 - (b) after that for at least a further 5 years in a format which is accessible within a reasonable period of time.

- (2) ~~From the go-live date, the~~ The network operator must maintain or archive previous meter reading data for each delivery point in its GDS with an interval meter for at least 7 years in a format which is accessible within 5 business days.

Part 4.5 – Heating value data

169. Heating value data calculations

Each network operator must calculate the daily average flow-weighted heating value for each gas zone in its sub-network.

170. Heating value data to be retained

A network operator must maintain or archive heating value data for each gas zone in the network operator's sub-network:

- (a) in a readily accessible format for at least 2 years; and
- (b) after that for at least a further 5 years in a format which is accessible within a reasonable period of time.

171. Publication of heating value data

- (1) For each gas day, for each gas zone in a network operator's sub-network, the network operator must publish the daily flow weighted average heating value data used for billing purposes for delivery points in the gas zone.
- (2) A publication under ~~rule~~clause 171(1) must be made:
 - (a) available in electronic form that can be remotely accessed for downloading by a participant; and
 - (b) by noon on the next business day.
- (3) Data published under ~~rule~~clause 171(1) must remain accessible under ~~rule~~clause 171(2)(a) for at least 12 months after the gas day.
- (4) Heating value data for a gas zone is not commercially sensitive or confidential information.

Chapter 5 – Allocation, Reconciliation and Swing

{Note: This Chapter 5 assumes that there will never be 3 or more *pipelines* interconnected with a *sub-network*. If this assumption is to be violated, the chapter will need amendment.}

Part 5.1 – Introduction

171A. Exemption ~~for farm tap sub-networks and~~ single pipeline sub-networks

- (1) This Chapter 5 does not apply in respect of:
 - (a) there is no ~~rule~~[clause](#) 171A(1)(a).
 - (b) an *uncovered sub-network*.
- (2) If a *network operator* of a *sub-network* identified in ~~rule~~[clause](#) 171A(1) becomes aware that:
 - (a) there is no ~~rule~~[clause](#) 171A(2)(a).
 - (b) in the case of an *uncovered sub-network*— it is proposed that the *sub-network* become a covered pipeline as defined in the *National Gas Access (Western Australia)* or subject to any other third party access regime under a *law* or under an instrument having effect under a *law*,

the *network operator* must advise ~~REMC~~[AEMO](#) of the proposal and provide ~~REMC~~[AEMO](#) with information in reasonable detail regarding the proposal at least 40 *business days* prior to an *uncovered sub-network* becoming a covered pipeline as prescribed in ~~rule~~[clause](#) 171A(2)(b), or prior to a *covered sub-network* becoming an *uncovered sub-network* as prescribed under ~~rule~~[clause](#) 171A(2)(c).
- (3) For a *sub-network* that is connected to a single *pipeline*:
 - (a) Part 5.10, Part 5.11, Part 5.12 and Part 5.12A do not apply; and
 - (b) in each of the following ~~rules~~[procedures](#), if applicable, the provisions in relation to *swing service*, *swing service providers* and *swing service repayment quantities* are to be disregarded:
 - (i) ~~rule~~[clause](#) 221;
 - (ii) ~~rule~~[clause](#) 228;
 - (iii) ~~rule~~[clause](#) 246;
 - (iv) ~~rule~~[clause](#) 248;
 - (v) ~~rule~~[clause](#) 249;
 - (vi) ~~rule~~[clause](#) 252;
 - (vii) ~~rule~~[clause](#) 253; and

(viii) ~~rule~~clause 302.

- (4) Notwithstanding ~~rule~~clause 171A(1)(b), REMCoAEMO may undertake the UAFG calculations under ~~rule~~clause 230 for *uncovered sub-networks* if requested to do so by the *network operator*, subject to the *network operator* agreeing to pay an *additional service charge* to cover the costs of these calculations, as per ~~rule~~clause 362A(7).
- (5) In making the calculations under ~~rule~~clause 171A(2), REMCoAEMO may also undertake any other calculations necessary to facilitate the calculation of UAFG for the *uncovered sub-networks*.

172. There is no ~~rule~~clause 172

173. The shipper register

- (1) REMCoAEMO must establish a *shipper register* for the purposes of this Chapter 5:
- (a) which sets out for each *user* for each *sub-network*:
 - (i) a list of the *shippers* that have provided a valid *listing request* to REMCoAEMO;
 - (ii) a list of the *swing service providers* that have provided a valid *listing request* to REMCoAEMO,
 - and
 - (b) subject to this Chapter 5, the contents of which REMCoAEMO must keep confidential.
- (2) A *shipper* or a *swing service provider* may at any time directly or through an agent provide:
- (a) a request (“**listing request**”) to REMCoAEMO to list it in the *shipper register* in respect of a *user* and a *sub-network* from a specified “**effective date**”; or
 - (b) a request (“**delisting request**”) to REMCoAEMO to remove its listing from the *shipper register* in respect of a *user* and a *sub-network* from a specified “**effective date**”.
- (3) A *listing request* by a *shipper* under ~~rule~~clause 173(2) is a statement by the *shipper* that the *shipper* agrees to be listed from time to time in the *user’s allocation instruction* in respect of the *user’s gas injections* into the *sub-network*, and is valid if:
- (a) it includes the *shipper’s GBO identification* and the *shipper* has an *active GBO identification*;
 - (b) it includes a written confirmation from:
 - (i) the *pipeline operator* indicating that the *shipper* has a *gas transmission contract* in the *pipeline*; or

- (ii) another *shipper* listed on the *shipper register* indicating that it has a ~~contract~~contract to supply gas transmission capacity to the *shipper* on the *pipeline*.
- (4) A *listing request* by a *swing service provider* or *swing service provider of last resort* under ~~rule~~clause 173(2) is a statement by the *swing service provider* or *swing service provider of last resort* that the *swing service provider* or *swing service provider of last resort* as the case may be agrees to be specified from time to time, under ~~rule~~clause 267(3)(f)(ii), in a *procurement request* provided by the *user* to ~~REMC~~CoAEMO as a *swing service provider* that will *repay* part or all of one or more of the *user's swing service repayment quantities* on the *user's* behalf where the *user* did not procure the *swing service* from that *swing service provider*, and is valid if:
 - (a) it includes the *swing service provider's GBO identification* and the *swing service provider* has an *active GBO identification*; and
 - (b) it includes a written confirmation:
 - (i) from the *pipeline operator* that the *swing service provider* either:
 - A. has a *transmission contract* in the *pipeline*; or
 - B. has an agreement with the *pipeline operator* for the provision of either or both of *park swing service* and *loan swing service* in the *pipeline* at the *gate point*.
 - (ii) a *shipper* listed on the *shipper register* indicating that it has an agreement to supply gas transmission capacity to the *swing service provider* on the *pipeline*.
- (5) Upon receipt of a valid *listing request* or a *delisting request*, ~~REMC~~CoAEMO must update the *shipper register* accordingly:
 - (a) where the request is received from a *shipper*:
 - (i) where the *effective date* is within 2 *business days* of the date of the *listing request* or *delisting request* – as soon as practicable, and in any event before the end of the *business day* on which ~~REMC~~CoAEMO receives the *listing request* or *delisting request*, to apply at the latest in respect of the *gas day* starting 2 *business days* later; and
 - (ii) where the *effective date* is 2 *business days* from the date of the *listing request* or *delisting request* or later – to apply in respect of the first *gas day* after the *effective date*,
 - and
 - (b) where the request is received from a *swing service provider*:
 - (i) where the *effective date* is within 4 *business days* of the date of the *listing request* or *delisting request* – as soon as practicable, and in any event before the end of the *business day* on which ~~REMC~~CoAEMO receives the

listing request or delisting request, to apply at the latest in respect of the gas day starting 4 business days later; and

- (ii) *where the effective date is 4 business days from the date of the listing request or delisting request or later – to apply in respect of the first gas day after the effective date.*

(6) If requested by a *pipeline operator*, [REMCoAEMO](#) must as soon as practicable advise the *pipeline operator* of all *shippers* and *swing service providers* listed in the *shipper register* in respect of a *gate point* which interconnects the *pipeline operator's pipeline* and a *sub-network*.

(7) If a *shipper* does not have a *gas transmission contract* in a *pipeline* or with another *shipper* on the *shipper register*, the *pipeline operator* may give a *notice* ("**removal request**") to [REMCoAEMO](#) requesting [REMCoAEMO](#) to remove the *shipper* from the *shipper register* for the *pipeline*.

(8) If a *swing service provider* does not have:

- (a) a *transmission contract* in the *pipeline*;
- (b) an agreement with the *pipeline operator* for the provision of either or both *park swing service* and *loan swing service* in the *pipeline* at the *gate point*; or
- (c) an agreement with a *shipper* on the *shipper register* to supply *gas transmission capacity* to the *swing service provider* on the *pipeline*.

then the *pipeline operator* may give a *notice* ("**removal request**") to [REMCoAEMO](#) requesting [REMCoAEMO](#) to remove the *swing service provider* from the *shipper register* in respect of a *gate point* on the *pipeline*.

(9) By providing a *removal request*, the *pipeline operator* represents and warrants to [REMCoAEMO](#) that the *shipper* or *swing service provider* named in the *removal request* does not have a *gas transmission contract* in the *pipeline*.

{Note: Under [rule clause 376A\(2\)](#), a breach of this warranty will expose the *pipeline operator* to liability for more than just direct damage.}

(10) On receipt of a *removal request*, [REMCoAEMO](#) must:

- (a) as soon as practicable and in any event within 12 hours, advise the *shipper* or *swing service provider* and each *user* in respect of which the *shipper* or *swing service provider* is listed in the *shipper register* that, on the *pipeline operator's* request, the *shipper* or *swing service provider* will be removed from the *shipper register* in respect of the *gate point* which interconnects the *pipeline* and the *sub-network*; and
- (b) remove the *shipper* or *swing service provider* from the *shipper register* in respect of the *gate point* which interconnects the *pipeline* and the *sub-network* as soon as practicable and in any event before the end of the *business day* on which [REMCoAEMO](#) receives the notification from the *pipeline operator*, to apply at the latest in respect of the *gas day* starting 2 *business days* later.

(11) A *pipeline operator* that provides a *removal request* to ~~REMC~~*oAEMO* is liable to ~~REMC~~*oAEMO* for, and must indemnify ~~REMC~~*oAEMO* against, any loss or damage caused by or arising directly or indirectly out of or in connection with the *removal request*, including:

- (a) the *removal request* not being validly given;
- (b) ~~REMC~~*oAEMO* acting in reliance on the *pipeline operator's* representation and warranty under ~~rule~~*clause* 173(9);
- (c) ~~REMC~~*oAEMO* acting in reliance on the *removal request*; or
- (d) ~~REMC~~*oAEMO* removing a *shipper* or *swing service provider* from the *shipper register* in accordance with the *removal request*,

including:

- (e) any liability of ~~REMC~~*oAEMO* to any other person, or any claim, demand, action or proceeding brought against ~~REMC~~*oAEMO*, and any costs or expenses, including legal costs (on a full indemnity basis), in connection with the claim, demand, action or proceeding; and
- (f) any consequential loss or damage however caused, including any:
 - (i) loss of (or loss of anticipated) use, production, revenue, income, profits, business and savings; or
 - (ii) loss or damage due to business interruption,

whether or not the consequential loss or damage was foreseeable.

174. Only one notional gate point per pipeline for each sub-network

- (1) If there is more than one physical interconnection between a given *sub-network* and a *pipeline*, then for the purposes of this Chapter 5, the several physical points of interconnection are treated as being aggregated into a single (notional) *gate point* between the *pipeline* and the *sub-network*.
- (2) If there is only one physical interconnection between a given *sub-network* and a *pipeline*, then for the purposes of this Chapter 5, that physical point of interconnection is treated as the *gate point*.

175. Gate Point control systems

- (1) Subject to ~~rule~~*clause* 175(2) to 175(4) a *pipeline operator* may:
 - (a) operate a *gate point* on any of the following *gate point* control systems:
 - (i) *pressure control*;
 - (ii) *flow profile control*;
 - (iii) *flow ratio control*;

(iv) *market responsive flow control*;

- (b) change the control system it is operating for a *gate point*, provided that not later than 20 *business days* before it changes the control system it notifies [REMCoAEMO](#) and each *network operator* of the control system it proposes to operate for its *gate point* after the date on which it changes the control system; and
- (c) adopt additional control measures for the control system it is operating for a *gate point* on a temporary intra-day basis in order to maintain *pipeline* integrity or manage *pipeline* operational emergencies, if the failure to change the control system would result in material damage to the *pipeline* or a more extensive disruption or curtailment of gas supply.

(2) A *pipeline operator* must not:

- (a) operate a *gate point* on a *pressure control system* if any other *gate point* that delivers gas to the same *sub-network* as that *gate point* is operated on a *pressure control* control system; or
- (b) operate a *gate point* on a control system other than a *pressure control system* if no other *gate point* that delivers gas to the same *sub-network* as that *gate point* is operated on a *pressure control system*.

(3) If a *pipeline operator* wishes to operate a *gate point* on a control system other than a control system specified in [rule clause 175\(1\)\(a\)](#), it must first consult with *participants* and [REMCoAEMO](#) to develop changes to these [rules procedures](#) that are consistent with the proposed form of *gate point* control system in order to ensure that the implementation of the new control system would not prevent these [rules procedures](#) from operating.

(4) If a *pipeline operator* wishes to change the control system for a *gate point*, it must use its reasonable endeavours to consult with all *shippers* operating in the *sub-network* connected to the affected *gate point* at least 15 *business days* before the change takes place to take into account the possible impact of the proposed change on *participants* and having due regard to maintaining an open and competitive environment.

(5) A *pipeline operator* may, for the purposes of complying with its obligations under [rule clause 175\(4\)](#), request [REMCoAEMO](#) to notify it of the identity of all *shippers* operating in the *sub-network*. [REMCoAEMO](#) must comply with a request from a *pipeline operator* under this [rule clause 175\(5\)](#) within 3 *business days* of receiving the request.

176. Type of pipeline control system

(1) If [REMCoAEMO](#) is notified under [rule clause 175](#) that a *sub-network* will be operating with one pressure control *pipeline* and one flow profile control *pipeline*, then:

- (a) within 15 *business days* of [REMCoAEMO](#) receiving the notice under [rule clause 175](#), [REMCoAEMO](#) must provide to the *pipeline operator* of the flow profile control *pipeline*:

- (i) the set of *profiles* referred to in [ruleclause 200\(1\)](#); and
- (ii) the set of principles referred to in [ruleclause 200\(2\)\(b\)](#), which must be applied by the *pipeline operator* of the flow profile control *pipeline* in the selection of a *profile* for the operation of the flow profile control *pipeline* for the *sub-network* for each *gas day*;

and on each occasion that [REMCeAEMO](#) determines new *profiles* or principles under [ruleclause 200](#), [REMCeAEMO](#) must as soon as practicable provide the new *profiles* or principles to the *pipeline operator* of the flow profile control *pipeline*; and

- (b) each *user* in the *sub-network* must procure its *related shippers* or *swing service providers* (as applicable) in the flow profile control *pipeline* to procure the *pipeline operator* for the flow profile control *pipeline* to:
 - (i) select a *profile* for the operation of the flow profile control *pipeline* for each *gas day* from the set of *profiles* referred to in [ruleclause 176\(1\)\(a\)\(i\)](#) in accordance with the principles referred to in [ruleclause 176\(1\)\(a\)\(ii\)](#);
 - (ii) *inject* gas into the *sub-network* on a *gas day* in accordance with the *profile* selected by the *pipeline operator* for the *gas day* under [ruleclause 176\(1\)\(b\)\(i\)](#); and
 - (iii) advise [REMCeAEMO](#), at least 16 hours before the start of each *gas day*, of the *profile* selected by the *pipeline operator* for the *gas day*.
- (2) If [REMCeAEMO](#) is notified under [ruleclause 175](#) that a *sub-network* will be operating with one pressure control *pipeline* and one flow ratio control *pipeline*:
 - (a) for each *gas day*, [REMCeAEMO](#) must calculate the ratio for the flow ratio control *pipeline* for the *sub-network* in accordance with [ruleclause 176\(3\)](#), and at least 15 hours before the start of the *gas day*, *notify* the ratio to the *pipeline operator* for the flow ratio control *pipeline*; and
 - (b) each *user* in the *sub-network* must procure its *related shippers* or *swing service providers* (as applicable) in the flow ratio control *pipeline* to procure the *pipeline operator* for the flow ratio control *pipeline* to *inject* gas into the *sub-network* in accordance with the ratio notified by [REMCeAEMO](#) under [ruleclause 176\(2\)\(a\)](#) or revised under [ruleclause 176\(4\)](#) from time to time.
- (3) If [REMCeAEMO](#) is required under [ruleclause 176\(2\)](#) to calculate the ratio for a *flow ratio control pipeline* for a *sub-network* for a *gas day*, it must calculate the ratio as follows:

$$R = \frac{\sum UPNA_F}{\sum UPNA_P}$$

where:

R = the ratio for a *flow ratio control pipeline* for the *sub-network* for the *gas day*;

$UPNA_F$ = the *user's pipeline nomination amount* for the *flow ratio control pipeline* notified under [rule clause 197\(2\)](#) for each *user* for the *sub-network*; and

$UPNA_P$ = the *user's pipeline nomination amount* for the *pressure control pipeline* notified under [rule clause 197\(2\)](#) for each *user* for the *sub-network*.

(4) If [REMCeAEMO](#) has notified a ratio for a *gas day* to the *pipeline operator* for the *flow ratio control pipeline* for a *sub-network* under [rule clause 176\(2\)\(a\)](#), and [REMCeAEMO](#) is notified of a revised *user's pipeline nomination amount* for the *sub-network* for the *gas day* under [rule clause 184](#), as soon as practicable [REMCeAEMO](#) must:

(a) recalculate the ratio for the *flow ratio control pipeline* for the *sub-network* for the *gas day* taking into account the revised *user's pipeline nomination amount* ("**recalculated ratio**");

(b) correct the *recalculated ratio* ("**corrected recalculated ratio**") with the objective that at the end of the *gas day* the ratio of gas delivered by the *flow ratio control pipeline*, taken across the whole of the *gas day*, is appropriate, provided that the correction is not more than "**A**"%, where "**A**" is a variable, of the *recalculated ratio*; and

{Note: [Rule Clause 176\(4\)\(b\)](#) is intended to permit [REMCeAEMO](#) to set a ratio which "overcorrects" or "leads" the actual ratio, to ensure that gas flows across the whole day, and not just in the part of the day following the adjustment, achieve the correct new ratio.}

(c) *notify the corrected recalculated ratio* to the *pipeline operator* for the *flow ratio control pipeline*.

(5) The value to be used for the variable "**A**" in [rule clause 176\(4\)\(b\)](#) is 20.

(6) If the *pipeline operator* of the *flow ratio control pipeline* (acting as a reasonable and prudent person) forms the opinion that it cannot adjust the operation of the *pipeline* to accommodate the *corrected recalculated ratio* notified to it under [rule clause 176\(4\)\(c\)](#), then:

(a) it must *immediately notify* [REMCeAEMO](#) of the opinion; and

(b) [REMCeAEMO](#) may consult with the *pipeline operator* (both acting as *reasonable and prudent persons*) and may adjust the *corrected recalculated ratio*, and if [REMCeAEMO](#) does adjust the *corrected recalculated ratio*, it must make the adjusted *corrected recalculated ratio* available to the *pipeline operator*, *shippers* and *swing service providers* on the *pipeline* and *users* in the *sub-network*.

177. There is no [ruleclause 177](#)

Part 5.2 – User obligations

178. User to procure injections which match user's likely swing service repayment quantities and user's required withdrawals

A user must ensure that for each *sub-network* for each *gas day* it procures:

- (a) the *repayment* into the *sub-network* of the *user's swing service repayment quantities* for the *sub-network* for the *gas day*; and
- (b) the *injection* into the *sub-network* of an amount of gas equal to its good faith estimate as a *reasonable and prudent person* of its likely *user's required withdrawals* for the *sub-network* for the *gas day*.

{Note: The *user's required withdrawals* is defined in [ruleclause 2](#) as meaning the sum of *UIW*, *UEBW*, *UUAFG* and *URAA* for a user for a *gas day* less any part of the *URAA* that relates to a *gate point adjustment amount*.}

179. There is no [ruleclause 179](#).

180. [RulesProcedures](#) may require negative injection

To avoid doubt, [ruleclause 178](#) may require a user to procure the *injection* into the *sub-network* of a negative amount of gas on a *gas day*.

{Note: Any negative *injection* may be resolved between the user and its *related shipper* or *swing service providers* (as applicable), between the *shipper* or *swing service providers* (as applicable) and the *pipeline operator* or by an arrangement with another user.}

181. User to minimise its contribution to swing service

A user must endeavour to minimise the extent to which it, and its *related shippers* or *swing service providers* (as applicable), contribute to the causation of *swing service*.

{Note: There are two specific user obligations implied by this [ruleprocedure](#) as follows:

- (i) That the user must procure *nominations* which are equal to its estimate of its *user's required withdrawals* for the upcoming *gas day*; and
- (ii) That the user must provide [REMCaEMO](#) with *user's allocation instructions* for the *gas day* that, when applied (after the fact) to the *user's estimated total withdrawals* for that *gas day* will result in as small as possible a contribution to *swing service* on that *gas day*.

This [ruleprocedure](#) requires users to submit negative *user's allocation instructions* for *gas days* when the *pipeline corrected injections* are negative or when the user's contribution to the *pipeline corrected injections* other than its *swing service repayment quantity* are negative.}

182. Users collectively to keep sub-network pressurised

- (1) Each user must ensure that its, and its *related shippers' or swing service providers'* (as applicable), conduct (including conduct within a *gas day*) does not:
 - (a) jeopardise gas *injections* into the *sub-network* in such a way that the *sub-network's* system pressure is threatened; or

- (b) impede a *network operator's* ability to ensure that the system pressure in a *sub-network* is maintained.
- (2) Without limiting this [ruleclause](#) 182, a *user* must ensure that its intra-day gas flows do not:
 - (a) jeopardise the operation of the *sub-network*; or
 - (b) cause the obligation to keep the *sub-network* pressurised to fall disproportionately on other parties.
- (3) The responsibility on *users* to keep the *sub-network* pressurised, set out in this [ruleclause](#) 182, falls on each *user* proportionately to the *user's* aggregate gas withdrawals out of the *sub-network* on a *gas day*.
- (4) A *user's* obligations under this [ruleclause](#) 182 are owed:
 - (a) to every other *user* who *injects* gas into the *sub-network* on a *gas day*, jointly and severally; and
 - (b) to the *network operator*.

183. There is no [ruleclause](#) 183

184. Renominations and changes in shipper's right to inject gas

If, before or during a *gas day*:

- (a) a *user's related shipper* renominates for the *gas day*; or
- (b) a *user* becomes aware that its *related shipper's nomination* for the *gas day* is to be adjusted under its *transmission contract*, or that the *pipeline operator* does not plan to *inject* gas in accordance with the *shipper's* or *swing service providers* (as applicable) *nomination* for the *gas day*,

in a manner which will cause a change to the *user's pipeline nomination amount*, then:

- (c) the *user* must *immediately notify* [REMCeAEMO](#) of the revised *user's pipeline nomination amount* for the relevant *pipeline* and *sub-network*, and
- (d) the *user* may give [REMCeAEMO](#) a *revised allocation instruction* under [ruleclause](#) 189 for the *sub-network*.

184A. There is no [ruleclause](#) 184A

185. There is no [ruleclause](#) 185

186. User to procure shipper's nominations

- (1) For each *sub-network* for each *gas day*, each *user* must procure nominations from one or more *related shippers* or *swing service providers* (as applicable) within the time frames required by the *related shipper's* or *swing service provider's transmission contract* which are sufficient to satisfy the *user's* obligations under Part 5.2.

- (2) Nothing in [rule clause 186\(1\)](#) prevents a *shipper's* or *swing service provider's* nomination from being made in aggregate, to address the requirements of more than one *user*.

Part 5.3 – Allocation instruction

187. “User’s gas injections” defined

In this Part 5.3, “**user’s gas injections**” for a *sub-network* for a *gas day* means, as appropriate, either:

- (a) before the end of the *gas day*, the *user’s total nomination amount* under [rule clause 198](#) minus the sum of the *user’s swing service repayment quantities* for repayment on the *gas day* calculated under [rule clause 299](#); or
- (b) after the end of the *gas day*, the *user’s estimated total withdrawals* calculated under [rule clause 228](#) minus the sum of the *user’s swing service repayment quantities* for repayment on the *gas day* calculated under [rule clause 299](#).

188. User’s allocation instruction

- (1) A *user* must give [REMCoAEMO](#) a valid *allocation instruction* under this Part 5.3:
 - (a) at least 2 *business days* before the *gas day* on which the *user* first withdraws gas from a *sub-network*; and
 - (b) for each *gas day* on which the *user* is likely to withdraw gas from a *sub-network* before the *gas day*
- (2) An *allocation instruction* may be expressed as a standing instruction which applies until a new valid *allocation instruction* is given, and may allocate the *user’s gas injections* to *shippers* by:
 - (a) percentages;
{Example: “20% to shipper A and 80% to shipper B”.}
 - (b) quantities, which must include an allocation of residual quantity; or
{Example: “15 TJ to shipper A, 5 TJ to shipper B and the balance to shipper A”.}
 - (c) by a combination of the options in [rules clauses 188\(2\)\(a\)](#) and [188\(2\)\(b\)](#).
{Example: “15 TJ to shipper A, and the balance 40% to shipper A and 60% to shipper B”.}
- (3) An *allocation instruction* must specify for each *gas day* to which it applies how the *user’s gas injections* into the *sub-network*, other than the *user’s swing service repayment quantities*, are to be allocated between the *shippers injecting* gas into the *sub-network* on the *user’s* behalf.

189. Revised allocation instructions

- (1) A *user* may from time to time give [REMCoAEMO](#) a *revised allocation instruction* for a *gas day*.

- (2) Subject to [ruleclause 189\(3\)](#), a *revised allocation instruction* given under [ruleclause 189\(1\)](#) may be given at any time up to 3.5 hours after the end of a *gas day* to which it applies.
- (3) A user must not give [REMGCoAEMO](#) a *revised allocation instruction* for a *gas day* after the start of the *gas day* which, subject to [rulesclauses 189\(4\)](#) and [189\(6\)](#), purports to allocate a *user's gas injections* into the *sub-network* across *pipelines* in different proportions to the *earlier allocation instruction* in a way which for either *pipeline* would be expected by a *reasonable and prudent person* to result in more than a "A"% difference, where "A" is a variable, between the amount of gas allocated to a *pipeline* at the end of the *gas day* compared with what would have been allocated under the *earlier allocation instruction*.
- (4) The value to be used for the variable in [ruleclause 189 \(3\)](#) is 10.
- (5) Where a user has provided a revised *user's pipeline nomination amount* for the *gas day* to [REMGCoAEMO](#) under [ruleclause 184](#), a *revised allocation instruction* given by the user to [REMGCoAEMO](#) which allocates the *user's gas injections* into the *sub-network* across *pipelines* in different proportions to the *earlier allocation instruction* is not subject to the limitation in [ruleclause 189 \(3\)](#) if the *revised allocation instruction* operates to allocate an amount of the *user's gas injections* into the *sub-network* to a *pipeline* that is closer to the revised *user's pipeline nomination amount*.
- (6) A *revised allocation instruction* provided by a user to [REMGCoAEMO](#) is not subject to the limitation in [ruleclause 189 \(3\)](#) if the *revised allocation instruction* is provided by the user in extraordinary circumstances as a *reasonable and prudent person* in an attempt to maximise its compliance with [rulesclauses 178](#) and [182](#).

{Note: The objective of [ruleclause 189 \(3\)](#) is to prevent gaming by a user by the user generating swing. The objective of [ruleclause 189\(6\)](#) is to ensure that [ruleclause 189 \(3\)](#) does not prevent a user from taking action which is for the overall benefit of the *sub-network* as a whole in extraordinary circumstances. For example, a user should be able to ensure that an adequate amount of gas is supplied into a *sub-network* from an alternative *pipeline* where the capacity of its original *pipeline* for *injecting* gas into the *sub-network* is restricted because of sudden equipment failure or physical constraints within the *sub-network*.}

190. There is no [ruleclause 190](#)

191. Validity of allocation instruction

- (1) Subject to this Part 5.3, a *user's allocation instruction* will be valid for a *gas day* if:
 - (a) the allocations in the *allocation instruction* are capable of being applied to allocate all the *user's gas injections* (whatever they are on the *gas day*) to a *shipper*; and
 - (b) each *shipper* listed in the *allocation instruction* is listed in the *shipper register* for the user for the *sub-network* for the *gas day*.
- (2) [REMGCoAEMO](#) must assess each *allocation instruction* it receives from a user, for each *gas day* to which the *allocation instruction* is stated to apply, against the criteria in [ruleclause 191\(1\)](#), as soon as practicable:
 - (a) after it receives the *allocation instruction*;

- (b) after the *shipper register* for the user for the *sub-network* is updated under [ruleclause 173\(4\)\(b\)\(ii\)](#), or after a *shipper* is removed from the *shipper register* in respect of a *gate point* for the *sub-network* under [ruleclause 173\(10\)](#); and
- (c) after it has determined the *user's estimated total withdrawals* for the *gas day* under [ruleclause 228\(1\)](#).

192. If allocation instruction is invalid

- (1) If [REMCeAEMO](#) determines that a *user's allocation instruction* is not valid, [REMCeAEMO](#) must *immediately* advise the *user* that its *allocation instruction* is not valid and the reason why, in order that the *user* can, if permitted under this Part 5.3, submit a *revised allocation instruction*.
 - (2) If a *user* has not provided an *allocation instruction* to [REMCeAEMO](#) that is valid under this Part 5.3, then [REMCeAEMO](#) must use the appropriate alternative method under this [ruleclause 192\(2\)](#) for allocating the *user's gas injections* across *shippers* for the *gas day*, *immediately* notify the *user* which method was used and of the result of using that method and as soon as practicable, and *notify* ("[ruleclause 192\(2\) notice](#)") each *shipper* to which [REMCeAEMO](#) allocated some or all of the *user's gas injections* that [REMCeAEMO](#) was required under this [ruleclause 192\(2\)](#) to allocate gas to the *shipper*, of the amount of gas allocated to the *shipper* and of the name of the *user*.
 - (a) if possible, [REMCeAEMO](#) must use the *user's most recent allocation instruction* for the *sub-network* that is valid for the *gas day* determined using the *like day substitution methodology*; and
 - (b) if there is no such *allocation instruction*, [REMCeAEMO](#) must use the *user's most recent allocation instruction* for the *sub-network* that is valid for the *gas day* from any previous *gas day*; and
 - (c) if there is no such *allocation instruction*, [REMCeAEMO](#) must apportion the *user's gas injections* for the *gas day* across all of the *shippers* listed in the *shipper register* for the *user* for the *sub-network* in equal amounts; and
 - (d) if there are no *shippers* listed in the *shipper register* for the *user* for the *sub-network*, then [REMCeAEMO](#) must determine the most recent *gas day* for which there was at least one *shipper* listed in the *shipper register* for the *user* for the *sub-network*, and allocate the *user's gas injections* for the *gas day* across all of the *shippers* listed in the *shipper register* for the *user* for the *sub-network* on that *gas day* in equal amounts.
- {Note: If an allocation under any of [rulesclauses 192\(2\)\(a\)](#) to [192\(2\)\(d\)](#) results in a *shipper* being allocated to supply, or to have supplied, gas to a *user* in circumstances where the *shipper* has no other contractual relationship with the *user* to enable it to charge for the supply, then the fallback *user-shipper agreement* under [ruleclause 193A](#) will fill the gap.}
- (3) If [REMCeAEMO](#) has been required to allocate a *user's gas injections* for a *gas day* for a *sub-network* using the method set out in [ruleclause 192\(2\)\(d\)](#), then [REMCeAEMO](#) must *immediately notify* the *network operator* and the *jurisdiction's ROLR administrator* that [REMCeAEMO](#) was required under [ruleclause 192\(2\)\(d\)](#) to allocate the *user's gas injections* for the *sub-network* to *shippers* which are not listed in the *shipper register* for the *user* for the *sub-network*.

193. User warranties

- (1) By providing an *allocation instruction* under this Part 5.3, a *user* warrants and represents to ~~REMC~~oAEMO that:
 - (a) each of the *shippers* set out in the *allocation instruction* agrees to, and has sufficient contractual entitlements to, *inject* gas on the *user's* behalf in accordance with the *allocation instruction* on any *gas day* to which the *allocation instruction* applies; and
 - (b) the *user* is party to a *haulage contract* for the *sub-network* in respect of which the *allocation instruction* applies.

{Note: Under ~~rule~~clause 376A(2), a breach of this warranty will expose the user to liability for more than just direct damage.}
- (2) A *user* makes the warranties in ~~rule~~clause 193(1) anew on the *gas day* before any *gas day* on which the *allocation instruction* will apply.

193A. Fallback user-shipper agreement

- (1) If a *shipper* gives ~~REMC~~oAEMO a *listing request* under ~~rule~~clause 173(2)(a) in respect of a *user* and a *sub-network*, then:
 - (a) by giving ~~REMC~~oAEMO the *listing request*, the *shipper* is deemed to make an irrevocable offer to the *user* to enter into a *fallback user-shipper agreement* in the form set out in Appendix 9 for the *sub-network*; and
 - (b) on the first subsequent occasion on which the *user* gives ~~REMC~~oAEMO an *allocation instruction* in respect of the *sub-network* under this Part 5.3 which lists the *shipper*, the *user* by giving that *allocation instruction* is deemed to have irrevocably accepted the offer in ~~rule~~clause 193A(1)(a), and the *user* and the *shipper* become parties to the *fallback user-shipper agreement*.
- (3) The *user* named in a *deemed contract* under a *fallback user-shipper agreement* must in accordance with the applicable *fallback user-shipper agreement* pay to the *shipper* which is a party to the *deemed contract* all amounts which are payable under the *deemed contract*.

{Note: The effect of this ~~rule~~clause 193A(2) is to make a non-payment by the *user* a breach of these ~~rules~~procedures, as well as a breach of the *fallback user-shipper agreement* and the *deemed contract*. This makes available the *compliance panel* process under Chapter 6, and in extreme circumstances the expulsion remedy under the ~~REMC~~oAEMO *Constitution* [WA Gas Retail Market Agreement](#).}

Part 5.4 – Before the start of the gas day

Division 5.4.1 – Before the start of the gas day

194. Shipper's nominations apply only to extent accepted

- (1) A reference in these ~~rules~~procedures to the amount of a *shipper's* or *swing service provider's* (as applicable) *nomination* or *renomination* means only the *accepted part* of the *nomination* or *renomination*.

- (2) In [rule clause 194\(1\)](#), “**accepted part**” means that part of the *nomination* or *renomination* that, after applying the relevant *transmission contract* processes, is binding on the *pipeline operator* for the purpose of the *transmission contract* in the sense that the *pipeline operator* is obliged under the *transmission contract* to *inject* gas in accordance with the *nomination* or *renomination*.

{Note: [Rule Clause 184](#) deals with the *user's* obligations if the *shipper's* rights to have gas *injected* or *swing service provider's* rights to have *swing service repaid* (as applicable) change during a *gas day*, for example due to a curtailment.)

195. User to procure standing nomination

A *user* must procure from each of its *related shippers* for each *gate point*, a “**standing nomination**” to the *pipeline operator* which, for the purposes of these [rules procedures](#), is the *user's related shipper's* default *nomination* in circumstances where the *user's related shipper* fails to *nominate* in accordance with its *transmission contract*.

196. User's amount of a shipper's nomination

- (1) For each *gate point* for each *gas day* for each *shipper's nomination* by a *user's related shipper*, the *user* must agree with the *shipper* the “**user's amount**” of the *shipper's nomination*.
- (2) If a *shipper* is the *related shipper* of only one *user*, then the *user's amount* equals the *shipper's nomination*.

197. User's pipeline nomination amount

- (1) For each *user* for each *gate point* for each *gas day*, a “**user's pipeline nomination amount**” is the sum of:
- (a) the *user's amounts* of its *related shipper's nominations* for the *gate point* for the *gas day* (summed across all *related shippers* for the *gate point*) calculated under [rule clause 196](#); and
 - (b) the *user's swing service repayment quantities* for the *gate point* for the *gas day* as notified by [REMCo AEMO](#) under [rule clause 300\(4\)](#) or [rule clause 300D\(1\)\(b\)](#) (whichever is applicable).
- (2) For each *gas day* for each *gate point*, at least 18 hours before the start of the *gas day*, a *user* must notify [REMCo AEMO](#) of the *user's pipeline nomination amount* for the *gate point*.

198. User's total nomination amount

For each *sub-network* for each *gas day*, a “**user's total nomination amount**” is the sum (across all *gate points*) of the *user's pipeline nomination amounts* for the *gas day*.

199. [REMCo AEMO](#) publishes profiled daily nominations

For each *sub-network* for each *gas day*, at least 2 hours before the start of the *gas day*, **REMCeAEMO** must publish to each *user* and its *related shippers* or *swing service providers* (as applicable), the *network operator* and the *pipeline operators*:

- (a) the “**profiled pipeline nominations**” for each *gate point*, being the aggregate of all *users* in the *sub-network’s user’s pipeline nomination amounts* for the *gate point* for the *gas day* notified under **ruleclause** 197, distributed across a *profile* selected as follows:
 - (i) if **REMCeAEMO** has been notified of a *profile* for the operation of a flow profile control *pipeline* for the *sub-network* for the *gas day* under **ruleclause** 176(1)(b)(iii) — **REMCeAEMO** must apply the *profile* notified to it to each *pipeline*; and
 - (ii) otherwise — **REMCeAEMO** must apply a *profile* which it selects in accordance with **ruleclause** 199(b) to each *pipeline*;
- and
- (b) the “**profiled sub-network nominations**” for the *sub-network*, being the aggregate of all *users* in the *sub-network’s user’s total nomination amounts* for the *gas day* notified under **ruleclause** 198, distributed across the *profile* used under **ruleclause** 199(a).

200. **REMCeAEMO** determines profiles

- (1) **REMCeAEMO** may determine from time to time, as a *reasonable and prudent person*, the *profiles* for use in **ruleclause** 199.
- (2) **REMCeAEMO** must, from time to time, publish guidelines which set out:
 - (a) the principles on which the *profiles* referred to in **ruleclause** 200(1) are based; and
 - (b) the principles which **REMCeAEMO** applies in the selection of a *profile* for a *gas day* under **ruleclause** 199(a)(ii), if **REMCeAEMO** is required to select a *profile*; and
 - (c) **REMCeAEMO**’s policy on the retention and management of the *profiles* referred to in **ruleclause** 200(1) in a *profile library*.

Division 5.4.2 – There is no Division 5.4.2

201. There is no **ruleclause** 201

202. There is no **ruleclause** 202

203. There is no **ruleclause** 203

204. There is no **ruleclause** 204

205. There is no **ruleclause** 205

206. There is no [ruleclause](#) 206

207. There is no [ruleclause](#) 207

208. There is no [ruleclause](#) 208

209. There is no [ruleclause](#) 209

Part 5.5– During the gas day

Division 5.5.1 – During the gas day

210. Pipeline operators to provide hourly data

For each *pipeline* for each *sub-network* for each hour, the *pipeline operator* must give to [REMCeAEMO](#) within 30 minutes after the end of the hour the *as-retrieved* energy inflow data for the *gate point* for the hour.

211. [REMCeAEMO](#)'s intra-day reporting

- (1) For each *sub-network* for each hour, [REMCeAEMO](#) must within 60 minutes after the end of the hour make available to each *user* in the *sub-network*, and to the *pipeline operator* of each *pipeline* connected to the *sub-network*, the following:
 - (a) the *as-retrieved* energy inflow data for each *gate point* for the hour;
 - (b) the *as-retrieved* energy inflow data aggregated across all *gate points*; and
 - (c) the *profiled sub-network nominations* published by [REMCeAEMO](#) before the start of the *gas day* under [ruleclause](#) 199(b), as revised from time to time under [ruleclause](#) 212.
- (2) If, for a *sub-network* for an hour, [REMCeAEMO](#) does not receive the data referred to in [ruleclause](#) 210 from a *pipeline operator* in sufficient time for [REMCeAEMO](#) to make available the data as required by [ruleclause](#) 211(1), then for that hour, [REMCeAEMO](#) is not required to make available the data referred to in [ruleclause](#) 211(1).

212. [REMCeAEMO](#) updates profiled sub-network nominations

For each *sub-network* for each *gas day*, if, after publishing the *profiled sub-network nominations* for the *sub-network* for the *gas day* under [ruleclause](#) 199(b), [REMCeAEMO](#) receives a revised *user's pipeline nomination amount* under [ruleclause](#) 184 for a *pipeline* for the *sub-network* for the *gas day*, [REMCeAEMO](#) must adjust the *profiled sub-network nominations* in accordance with the revised *user's pipeline nomination amount* and make the adjusted *profiled sub-network nominations* available to *users* in the *sub-network* and their *related shippers* or *swing service providers* (as applicable), the *network operator* for the *sub-network* and *pipeline operators*.

Division 5.5.2 – There is no Division 5.5.2

213. There is no [ruleclause](#) 213

214. There is no [ruleclause 214](#)

215. There is no [ruleclause 215](#)

216. There is no [ruleclause 216](#)

217. There is no [ruleclause 217](#)

Division 5.5.3– During the gas day

217A. Pressure control pipeline to provide instantaneous flow signals

- (1) In this [ruleclause 217A](#) “**instantaneous flow rate**” at a *gate point* means a flow rate measured over the shortest period of time over which the metering equipment at the *gate point* is capable of measuring a flow rate.
- (2) The *pipeline operator* of a *pipeline* that is operating as a pressure controlled *pipeline* for a *sub-network* with two *pipelines* connected to it, must under this [ruleclause 217A](#), if requested by the *pipeline operator* of the other *pipeline*, provide to the *pipeline operator* any one or more of the following data signals (each a “**flow signal**”) communicating the *instantaneous flow rate*:
 - (a) at the *gate point* connecting the pressure control *pipeline* to the *sub-network*; and
 - (b) if there is more than one physical interconnection between the pressure control *pipeline* and the *sub-network* — at each physical interconnection.

{Note: The physical interconnection referred to in [ruleclause 217A\(2\)\(b\)](#) is usually referred to as a “physical gate point”, whereas the *gate point* referred to in [ruleclause 217A\(2\)\(a\)](#) and elsewhere in these [rules/procedures](#) is called a “notional gate point”.}

{Example: If there are three physical gate points comprising the *gate point*, then the *pipeline operator* must, if requested, make available a maximum of 4 *flow signals*, one for the *gate point* and one each for the 3 physical gate points.}

- (3) A *pipeline operator* complies with [ruleclause 217A\(2\)](#) if, *acting as a reasonable and prudent person*, it provides the *flow signal*:
 - (a) in the form of a galvanically isolated 4-20 milliamp current loop or in such other form as the parties as *reasonable and prudent persons* may agree; and
 - (b) at a location which provides the other *pipeline operator* with a secure location to install equipment to receive and transmit the *flow signal*, together with a power supply for the equipment and reasonable rights of access for the other *pipeline operator* from time to time to operate and *maintain* the equipment.
- (4) The *pipeline operator* of a pressure controlled *pipeline* is not obliged to provide a *flow signal* until it has reached agreement with the other *pipeline operator* about the recovery of its costs of complying with this [ruleclause 217A](#), according to the following principles:
 - (a) the *pipeline operator* of the pressure control *pipeline* is entitled to recover all its costs as a *reasonable and prudent person* of providing the *flow signal*, in a manner consistent with the *National Gas Access (Western Australia) Law*;

- (b) there is to be no double-recovery of costs under this [rule clause](#) 217A and under any applicable *Access Arrangement* or agreement.
- (5) [Rule Clause](#) 217A(5) does not apply in respect of a *flow signal* being provided in a form and at a location for a *sub-network* if on 10 November 2003 the *flow signal* was being provided by the *pipeline operator* of the pressure controlled *pipeline* in the form and at the location for the *sub-network* to the *pipeline operator* of the other *pipeline* connected to the *sub-network*.

Part 5.6 – Allocation

218. The period for calculations

- (1) Except where a [rule procedure](#) states to the contrary, for each *gas day D* [REMCeAEMO](#) must perform each calculation it is required to perform under this Part 5.6 and Part 5.7 for each *historical gas day i* in the *historical period*.
- (2) Except where a [rule procedure](#) states to the contrary, [REMCeAEMO](#) must use the value it has most recently received and recorded, or generated and recorded, in the [REMCeAEMO](#) information system under these [rules procedures](#):
 - (a) for each input into each calculation [REMCeAEMO](#) is required to perform under this Part 5.6 and Part 5.7; and
 - (b) for each notification that [REMCeAEMO](#) is required to provide to a person under this Chapter 5.
- (3) For the purposes of [rule clause](#) 218(1):

“**historical period**” for *gas day D* means the period of 425 *gas days* between 426 *gas days* before *gas day D* and one *gas day* before *gas day D*; and

“**historical gas day i**” for *gas day D* means a *gas day* in the *historical period* for *gas day D*.
- (4) ~~The following transitional provisions apply in respect of calculations affecting a gas day (“prior day”) before the go-live date~~ [There is no clause 218\(4\)](#):
 - ~~(a) subject to rules 218(4)(c) and 218(4)(d), to the extent that REMCe has data in the REMCe information system for the prior day (“prior day data”) it must use the prior day data in any calculation under this Chapter 5 that would normally (that is, if the prior day occurred after the go-live date) use the data;~~
 - ~~(b) to the extent that a calculation under this Chapter 5 determines a new value for any prior day data which would normally (that is, if the prior day occurred after the go-live date) be substituted for the old value, then the new value is to be substituted for the old value in the normal way but the substituted data remains prior day data;~~
 - ~~(c) no reconciliation amount calculated under Part 5.7 is to include any amount reconciling for anything which occurred on a prior day; and~~

~~no amount of swing service calculated under Part 5.10 is to include any amount reflecting anything which occurred on a prior day.~~

219. Part 5.6 and Part 5.7 calculations do not affect swing charges or payments

The allocation processes in this Part 5.6 and the reconciliation process in Part 5.7 do not affect any payment made or payable under Part 5.12. In other words a calculation under Part 5.12 may not be reopened to correct the calculation using recalculated or reconciled amounts.

220. Pipeline injections

- (1) For each *gate point*, the “**pipeline injections**” for gas day *D* is the gate point energy quantity for the *gate point* provided to ~~REMC~~*CoAEMO* by the *network operator* under ~~rule~~*clause* 152.
- (2) For each *gate point* for each gas day, ~~REMC~~*CoAEMO* must calculate the “**pipeline corrected injections**” for each gas day as follows:

$$PCI = PI + GAA$$

where:

PCI = the *pipeline corrected injections* for the *gate point* for the *gas day*,

PI = the *pipeline injections* for the *gate point* under ~~rule~~*clause* 220(1); and

GAA = the *gate point adjustment amount* for the *gate point* for *gas day D* calculated under ~~rule~~*clause* 243(2).

221. Total corrected injections

For each *sub-network*, ~~REMC~~*CoAEMO* must calculate the “**total corrected injections**” for gas day *D* as follows:

$$TCI = \sum PCI - \sum SRQ - \sum URAA$$

where:

TCI = the *total corrected injections* for the *sub-network* for *gas day D*;

PCI = the *pipeline corrected injections* for each *gate point* for *gas day D* calculated under ~~rule~~*clause* 220(2);

SRQ = each *swing service repayment quantity* for each *user* for the *sub-network* for *repayment* on *gas day D* calculated under ~~rule~~*clause* 299; and

$URAA$ = the user's reconciliation adjustment amount for each user for the sub-network for repayment on gas day D calculated under [rule clause 243](#).

222. User's interval-metered withdrawals

For each user for each sub-network, [REMCeAEMO](#) must calculate the "user's interval-metered withdrawals" ("UIW") for gas day D as follows:

$$UIW = \sum IW$$

where:

UIW = the user's interval-metered withdrawals for the sub-network for gas day D ; and

IW = the interval-metered withdrawals for each of the user's interval-metered delivery points in the sub-network for gas day D provided to [REMCeAEMO](#) under [rule clause 158\(1\)\(c\)](#).

223. Net system load

- (1) For each sub-network for each gas day D , [REMCeAEMO](#) must calculate the net system load for each historical gas day i as follows:

$$NSL = TCI - \sum UIW - EUAFG$$

where:

NSL = the net system load for the sub-network for historical gas day i for gas day D ;

TCI = the total corrected injections for the sub-network for historical gas day i for gas day D calculated under [rule clause 221](#);

UIW = the interval-metered withdrawals for historical gas day i for gas day D for each user in the sub-network calculated under [rule clause 222](#); and

$EUAFG$ = the estimate of unaccounted for gas for the sub-network for historical gas day i for gas day D notified under [rule clause 229\(1\)](#) or [rule clause 238\(2\)](#), as applicable.

{Note: The $EUAFG$ may be a negative number.}

- (2) If [REMCeAEMO](#)'s calculation of net system load for any historical gas day i for gas day D under [rule clause 223\(1\)](#) produces a negative number or [REMCeAEMO](#) does not receive an estimate of unaccounted for gas for the sub-network for gas day D under [rule clause 229\(1\)](#), [REMCeAEMO](#) must:

- (a) instead of calculating *net system load* as set out in [rule clause 223\(1\)](#), determine the *net system load* for the *gas day* using the *like day substitution methodology*; and
- (b) calculate a “**revised estimate of unaccounted for gas**” to use in its calculations under this [rule clause 223](#) and Part 5.7 as follows:

$$RUAFG = TCI - \sum UIW - NSL$$

where:

$RUAFG$ = the *revised estimate of unaccounted for gas* for the *sub-network* for *gas day D*;

TCI = the *total corrected injections* for the *sub-network* for *gas day D* calculated under [rule clause 221](#);

UIW = the *interval-metered withdrawals* for the *sub-network* for *gas day D* for each *user* in the *sub-network* calculated under [rule clause 222](#); and

NSL = the *net system load* for the *sub-network* calculated under [rule clause 223\(2\)\(a\)](#) for *gas day D*,

and

- (c) for each *user* notified to [REMCoAEMO](#) as a supplier of *UAFG* for the *sub-network* under [rule clause 229\(1\)](#) for the most recent *gas day* for which no *revised estimate of unaccounted for gas* was required to be calculated under this [rule clause 223\(2\)](#) (“**last valid day**”), calculate, and within 4.5 hours after the end of the *gas day* advise the *user* and the *network operator* of, the “**revised user’s unaccounted for gas**” as follows:

$$RUUAFG_u = \frac{UUAFG_u}{\sum_{\text{All users}} UUAFG} \times RUAFG$$

where:

$RUUAFG_u$ = the *revised user’s unaccounted for gas* for the *user u* for the *sub-network* for *gas day D*;

$UUAFG_u$ = *UUAFG* for the *user u*;

$UUAFG$ = for a *user*, the quantity of the *UAFG* estimated to be supplied by the *user* notified under [rule clause 229\(1\)](#) for *gas day D*; and

$RUAFG$ = the *revised unaccounted for gas* for the *sub-network* for *gas day D* calculated under [rule clause 223\(2\)\(b\)](#).

Provided that, if:

$$\sum_{\text{All users}} \text{UUAFG}_u = \text{zero}$$

then ~~REMC~~~~Co~~~~AEMO~~ must calculate the “**revised user’s unaccounted for gas**” for each user using the values for UUAFG_u and $\sum_{\text{All users}} \text{UUAFG}_u$ from the previous gas day on which $\sum_{\text{All users}} \text{UUAFG}_u$ was not equal to zero.

- (3) If a value for *revised user’s unaccounted for gas* is calculated under ~~rule~~~~clause~~ 223(2)(c), that value is thereafter to be used in this Chapter 5 in place of the corresponding *user’s unaccounted for gas* value before the revision.

224. Raw estimate of basic-metered delivery points withdrawals

For each *basic-metered delivery point* for each *sub-network*, ~~REMC~~~~Co~~~~AEMO~~ must calculate a *raw estimated basic-metered withdrawal* for gas day *D* as follows:

$$\text{REBW} = \frac{\sum \text{DABW}_{\text{Historical}} + \sum \text{EBW}_{\text{Historical}}}{\sum \text{NSL}_{\text{Historical}}} \times \text{NSL}$$

where:

REBW = the *raw estimated basic-metered withdrawal* for the *basic-metered delivery point* for gas day *D*.

$\sum \text{DABW}_{\text{Historical}}$ = the sum of the *distributed actual basic-metered withdrawals* at the *basic-metered delivery point* for each gas day in the period from gas day *D-410* to gas day *D-321*, both inclusive, calculated under ~~rule~~~~clause~~ 232;

$\sum \text{EBW}_{\text{Historical}}$ = for each gas day for which a *distributed actual basic-metered withdrawal* is unavailable in the period from gas day *D-410* to gas day *D-321*, both inclusive, the sum of the *estimated basic-metered withdrawal* at the *basic-metered delivery point*, where the *estimated basic-metered withdrawal* is determined using ~~rule~~~~clause~~ 66(e) for new *delivery points* and otherwise using ~~rule~~~~clause~~ 226;

$\sum \text{NSL}_{\text{Historical}}$ = the sum of the *net system load* for the *sub-network* for each gas day in the period from gas day *D-410* to gas day *D-321*, both inclusive, calculated under ~~rule~~~~clause~~ 223; and

NSL = the *net system load* for the *sub-network* for gas day *D* calculated under ~~rule~~~~clause~~ 223.

225. Normalisation factor for estimate of basic-metered delivery points withdrawals

For each *sub-network* for each gas day *D*, ~~REMC~~~~Co~~~~AEMO~~ must calculate a “**normalisation factor**” for the *basic-metered delivery points* in the *sub-network* for each *historical day i* as follows:

$$NF = \frac{NSL}{\sum REBW}$$

where:

- NF* = the normalisation factor for the basic-metered delivery points in the sub-network for historical gas day *i* for gas day *D*;
- NSL* = the net system load for the sub-network for historical gas day *i* for gas day *D* calculated under [rule clause 223](#); and
- REBW* = the raw estimated basic-metered withdrawal for each basic-metered delivery point in the sub-network for historical gas day *i* for gas day *D* calculated under [rule clause 224](#).

226. Estimated basic-metered withdrawal for each basic-metered delivery point

For each basic-metered delivery point for each sub-network, [REMC](#)[AEMO](#) must calculate the “estimated basic-metered withdrawal” for gas day *D* as follows:

$$EBW = REBW \times NF$$

where:

- EBW* = the estimated basic-metered withdrawal for the basic metered delivery point for gas day *D*;
- NF* = the normalisation factor for basic-metered delivery points in the sub-network for gas day *D* calculated under [rule clause 225](#); and
- REBW* = the raw estimated basic-metered withdrawal for the basic-metered delivery point for gas day *D* calculated under [rule clause 224](#).

227. User’s estimated basic-metered withdrawals

For each user for each sub-network, [REMC](#)[AEMO](#) must calculate the “user’s estimated basic-metered withdrawals” (“UEBW”) for gas day *D* as follows:

$$UEBW = \sum EBW$$

where:

- UEBW* = the user’s estimated basic-metered withdrawals for the sub-network for gas day *D*; and

EBW = the *estimated basic-metered withdrawal* for each of the *user's basic metered delivery points* for the *sub-network* for gas day D calculated under [rule clause 226](#).

228. User's estimated total withdrawals

- (1) For each *user* for each *sub-network* [REMCo AEMO](#) must determine the *user's estimated total withdrawals* for gas day D as follows:

$$UETW = UIW + UEBW + UUAFG + URAA + \sum SRQ$$

where:

$UETW$ = the *user's estimated total withdrawals* for the *sub-network* for gas day D ;

UIW = the *user's interval-metered withdrawals* for gas day D calculated under [rule clause 222](#);

$UEBW$ = the *user's estimated basic-metered withdrawals* for gas day D calculated under [rule clause 227](#);

$UUAFG$ = any *UAFG* supplied by the *user* for gas day D notified under [rule clause 229\(1\)](#);

$URAA$ = the *user's reconciliation adjustment amount* notified under [rule clause 243](#) for *injection* under [rule clause 245](#) on gas day D ; and

SRQ = each of the *user's swing service repayment quantities* for the *sub-network* for *repayment* on gas day D calculated under [rule clause 299](#).

- (2) For each *user* for each *sub-network*, within 5 hours after the end of gas day D , [REMCo AEMO](#) must notify the *user* and the relevant *network operator* of the *user's estimated total withdrawals* for gas day D calculated under [rule clause 228\(1\)](#) and the amount of each component of the *user's estimated total withdrawals*.
- (3) For each *user* for each *sub-network* for each gas day D , within 5 hours after the end of gas day D , [REMCo AEMO](#) must notify the *user* of the *interval-metered withdrawals* for each of the *user's interval-metered delivery points* in the *sub-network* provided to [REMCo AEMO](#) on each gas day in the period between gas day D and gas day $D-6$ under [rule clause 158\(1\)\(c\)](#).

229. Estimate of unaccounted for gas

- (1) For each *sub-network* for each gas day, within 3.5 hours after the end of the gas day, the *network operator* must advise [REMCo AEMO](#) of its estimate of *UAFG* (which may later be revised under [rule clause 223\(2\)](#)) ("**EUAFG**"), the name of each *user* who is a supplier of *UAFG* for the *sub-network* and the quantity of the *UAFG* estimated to be supplied by each supplier.

- (2) The amount of *UAFG* supplied on a *gas day* by a *user* which was notified under [rule clause 229\(1\)](#) is the *user's UAFG* ("**UAFG**") for the *gas day*.
- (3) The *network operator's* estimate of *UAFG* under [rule clause 229\(1\)](#) must:
 - (a) take into account historical levels of *UAFG*; and
 - (b) be a number that results in the *net system load* calculated by [REMCe AEMO](#) under [rule clause 223\(1\)](#) being zero or a positive number.

230. [REMCe AEMO](#) calculates actual *UAFG*

- (1) For each *sub-network* for each *gas day D*, [REMCe AEMO](#) must calculate the "**actual UAFG**" for *gas day D-1* through *D-425* inclusive (each of which is a "**historical UAFG day**") as follows:

$$UAFG = \sum PI - \sum UIW - \sum UBW$$

where:

UAFG = the *actual UAFG* for the *sub-network* for *gas day D* for the *historical UAFG day*;

PI = the *pipeline injections* for the *gate point* provided to [REMCe AEMO](#) under [rule clause 220\(1\)](#);

UIW = the *user's interval-metered withdrawals* for each *user* for the *sub-network* for the *historical UAFG day* calculated under [rule clause 222](#); -and

UBW = the "**user's basic-metered withdrawals**" for each *user* for the *sub-network* for the *historical UAFG day* calculated as follows:

$$UBW = \sum DABW + \sum EBW$$

where:

UBW = the *user's basic-metered withdrawals* for all of the *user's basic-metered delivery points* for the *sub-network* for the *historical UAFG day*;

DABW = the *distributed actual basic-metered withdrawal* for each of the *user's basic-metered delivery points* in the *sub-network* for the *historical UAFG day*; and

EBW = for each of the *user's basic-metered delivery points* in the *sub-network* for which a *distributed actual basic-metered*

withdrawal is unavailable, the estimated basic-metered withdrawal at the basic-metered delivery point for the historical UAFG day.

- (2) Within 24 hours after the end of gas day *D*, REMCoAEMO must notify the network operator and each user who is a supplier of UAFG for the sub-network of the UAFG calculated under ruleclause 230(1).

Part 5.7 – Reconciliation

231. There is no ruleclause 231

232. Calculate distributed actual basic-metered withdrawal

- (1) For each *basic-metered delivery point* for each gas day *D* on which REMCoAEMO receives a *meter reading* from which an *actual value* is calculated (“**latest read**”) for the *basic-metered delivery point*, REMCoAEMO must determine the “**distributed actual basic-metered withdrawal**” (“**DABW**”) for each gas day in the *metering period* (including the gas day of the *latest read*) as follows:

- (a) first, calculate the “**NSL factor**” for gas day *i* as follows:

$$NSLF_i = \frac{NSL_i}{\sum NSL}$$

where:

$NSLF_i$ = the *net system load factor* for the *sub-network* for gas day *i*;

i = a gas day in the *metering period*;

NSL_i = the *net system load* for the *sub-network* for gas day *i* calculated under ruleclause 223; and

NSL = the *net system load* for the *sub-network* for each gas day in the *metering period* calculated under ruleclause 223;

- (b) then calculate the *distributed actual basic-metered withdrawal* for the *basic-metered delivery point* for gas day *i* as follows:

$$DABW_i = NSLF_i \times AQ$$

where:

$DABW_i$ = the *distributed actual basic-metered withdrawal* for the *basic-metered delivery point* for gas day *i*;

i = a gas day in the *metering period*;

$NSLF_i$ = the *net system load factor* for the *sub-network* for gas day i ; and

AQ = energy quantity of gas shown by the *latest read* as being withdrawn at the *basic-metered delivery point* during the *metering period*.

- (2) For each *basic-metered delivery point* for each gas day D on which ~~REMC~~~~o~~AEMO calculates a *net system load* (“**revised net system load**”) under ~~rule~~~~clause~~ 223 for a *historical gas day i* that is different to the *net system load* calculated for the *historical gas day i* on gas day $D-1$ under ~~rule~~~~clause~~ 223 (“**original net system load**”), ~~REMC~~~~o~~AEMO must, in accordance with ~~rule~~~~clause~~ 232(1), recalculate the “**distributed actual basic-metered withdrawal**” (“**DABW**”) for each gas day in the *metering period* in which the *historical gas day i* falls, using the *revised net system load* in place of the *original net system load*.

233. Calculate user’s summed basic-meter reconciliation amount

For each *user* for each *sub-network* for each gas day D , ~~REMC~~~~o~~AEMO must calculate the “**summed basic-meter reconciliation amount**” for each *historical gas day i* as follows:

$$SBRA = \sum BRA$$

where:

$SBRA$ = the *user’s summed basic-meter reconciliation amount* for the *sub-network* for *historical gas day i* for gas day D ; -and

BRA = the *basic-meter reconciliation amount* for each of the *user’s basic-metered delivery points* in the *sub-network* for *historical gas day i* for gas day D , calculated for each *basic-metered delivery point* as follows:

- (i) if ~~REMC~~~~o~~AEMO has not calculated the *distributed actual basic-metered withdrawal* under ~~rule~~~~clause~~ 232 for the *basic-metered delivery point* for *historical gas day i* , then:

$$BRA = 0$$

- (ii) if ~~REMC~~~~o~~AEMO has calculated the *distributed actual basic-metered withdrawal* under ~~rule~~~~clause~~ 232 for the *basic-metered delivery point* for *historical gas day i* , then:

$$BRA = DABW - EBW$$

where:

BRA	=	the <i>basic-meter reconciliation amount</i> for the <i>basic-metered delivery point</i> for <i>historical gas day i</i> ;
$DABW$	=	the <i>distributed actual basic-metered withdrawal</i> for the <i>basic-metered delivery point</i> for <i>gas day i</i> calculated under rule clause 232 ;
EBW	=	the <i>estimated basic-metered withdrawal</i> for the <i>basic metered delivery point</i> for <i>gas day i</i> calculated under rule clause 226 ; and
i	=	a <i>historical gas day i</i> in the range of <i>gas day D-1</i> to <i>gas day D-425</i> .

234. Calculate user's delta summed basic-meter reconciliation amount

For each *user* for each *sub-network* for each *gas day D*, [REMCeAEMO](#) must calculate the “**delta summed basic-meter reconciliation amount**” for each *historical gas day i* as follows:

$$\Delta SBRA_i^D = SBRA_i^D - SBRA_i^{D-1}$$

where:

$\Delta SBRA_i^D$	=	the <i>user's delta summed basic-meter reconciliation amount</i> for the <i>sub-network</i> for <i>historical gas day i</i> for <i>gas day D</i> ;
$SBRA_i^D$	=	the <i>user's summed basic-meter reconciliation amount</i> for the <i>sub-network</i> for <i>historical gas day i</i> for <i>gas day D</i> calculated under rule clause 233 ;
$SBRA_i^{D-1}$	=	the <i>user's summed basic-meter reconciliation amount</i> for the <i>sub-network</i> for <i>historical gas day i</i> for <i>gas day D-1</i> calculated under rule clause 233 ; and
i	=	a <i>historical gas day i</i> in the range of <i>gas day D-1</i> to <i>gas day D-425</i> .

235. Calculate user's total basic-meter reconciliation amount

For each *user* for each *sub-network*, [REMCeAEMO](#) must calculate the “**total basic-meter reconciliation amount**” (“**TBRA**”) for *gas day D* as follows:

$$TBRA = \sum_{i=D-425}^{D-1} (\Delta SBRA_i^D)$$

where:

$TBRA$	=	the user's total basic-meter reconciliation amount for the sub-network for gas day D ; and
$\Delta_{SBRA_i}^D$	=	the user's delta summed basic-meter reconciliation amount for the sub-network for historical gas day i calculated under rule clause 234 for gas day D ; and
i	=	a historical gas day i in the range of gas day $D-1$ to gas day $D-425$.

236. Calculate user's total interval-meter reconciliation amount

For each user for each sub-network, ~~REMC~~[AEMO](#) must calculate the "total interval-meter reconciliation amount" ("TIRA") for gas day D as follows:

$$TIRA = \sum_{i=D-425}^{D-1} (UIW_i^D - UIW_i^{D-1})$$

where:

$TIRA$	=	the user's total interval-meter reconciliation amount for the sub-network for gas day D .
UIW_i^D	=	the user's interval-metered withdrawals for the sub-network for historical gas day i calculated under rule clause 222 for gas day D ;
UIW_i^{D-1}	=	the user's interval-metered withdrawals for the sub-network for historical gas day i calculated under rule clause 222 for gas day $D-1$; and
i	=	a historical gas day i in the range of gas day $D-425$ to gas day $D-1$.

237. Calculate user's total basic-meter withdrawal reconciliation amount for transfers and pipeline gate point reconciliation

- (1) For each user for each sub-network, ~~REMC~~[AEMO](#) must calculate the "delta basic-meter withdrawal reconciliation amount" ("ΔBWRA") for each historical gas day i for gas day D as follows:

$$\Delta BWRA_i = UEBW_i^D - UEBW_i^{D-1}$$

where:

$\Delta BWRA_i$	=	the user's delta basic-meter withdrawal reconciliation amount for the sub-network for historical gas day i for gas day D ;
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$UEBW_i^D$ = the user's estimated basic-metered withdrawal for the sub-network for historical gas day i calculated under [rule clause 227](#) for gas day D ;

$UEBW_i^{D-1}$ = the user's estimated basic-metered withdrawal for the sub-network for historical gas day i calculated under [rule clause 227](#) for gas day $D-1$; and

i = a historical gas day i in the range of gas day $D-425$ to gas day $D-1$.

- (2) For each user for each sub-network, [REMCoAEMO](#) must calculate the “total basic-meter withdrawal reconciliation amount” (“TBWRA”) for gas day D as follows:

$$TBWRA = \sum_{i=D-425}^{D-1} (\Delta BWRA_i^D)$$

where:

$TBWRA$ = the user's total basic-meter withdrawal reconciliation amount for the sub-network for gas day D ;

$\Delta BWRA_i$ = the user's delta basic-meter withdrawal reconciliation amount for the sub-network for historical gas day i for gas day D ; and

i = a historical gas day i in the range of gas day $D-425$ to gas day $D-1$.

238. Calculate total delta pipeline injection

- (1) If a network operator receives revised gate point metering data from a pipeline operator in respect of a gate point for a gas day, as soon as practicable, the network operator must provide the revised gate point metering data to [REMCoAEMO](#).
- (2) At the time of providing revised gate point metering data for a gas day to [REMCoAEMO](#) under [rule clause 238\(1\)](#), the network operator may also provide to [REMCoAEMO](#) a revised estimate of UAFG for the gas day to [REMCoAEMO](#).
- (3) For each gate point, [REMCoAEMO](#) must calculate the “delta pipeline injection” (“ ΔPI ”) for each historical gas day i for each gas day D as follows:

$$\Delta PI_i^D = PI_i^D - PI_i^{D-1}$$

where:

ΔPI_i^D = the delta pipeline injection for the gate point for each historical gas day i for gas day D ;

PI_i^D = the pipeline injection for the gate point for a historical gas day i for gas day D under [rule clause 220\(1\)](#);

PI_i^{D-1} = the pipeline injection for the gate point for a historical gas day i for gas day $D-1$ under ~~rule~~ clause 220(1); and

i = a historical gas day i in the range of gas day $D-425$ to gas day $D-1$;

- (4) For each gate point, ~~REMC~~ ~~Co~~ ~~AEMO~~ must calculate the “total delta pipeline injection” (“ $T\Delta PI$ ”) for each gas day D as follows:

$$T\Delta PI^D = \sum_{i=D-425}^{D-1} (\Delta PI_i^D)$$

where:

$T\Delta PI^D$ = the total delta pipeline injection for the gate point for gas day D ;

ΔPI_i^D = the delta pipeline injection for the gate point for a historical gas day i for gas day D ; and

i = a historical gas day i in the range of gas day $D-425$ to gas day $D-1$.

239. Miscellaneous reconciliation amount

For each sub-network, ~~REMC~~ ~~Co~~ ~~AEMO~~ may, after consultation with the network operator, determine as a reasonable and prudent person one or more miscellaneous reconciliation amounts (each an “MRA”) for gas day D for any one or more users in the sub-network or for the sub-network.

{Note: In most cases if a user is allocated a miscellaneous reconciliation amount, another user will be allocated an equal and opposite miscellaneous reconciliation amount.}

240. Calculate user’s daily unaccounted for gas reconciliation amount

- (1) For each sub-network for each gas day D , ~~REMC~~ ~~Co~~ ~~AEMO~~ must calculate the “total delta basic-meter reconciliation amount” for each historical gas day i as follows:

$$T\Delta SBR_i^D = \sum_{All\ users} \Delta SBR_i^D$$

where:

$T\Delta SBR_i^D$ = the total delta basic-meter reconciliation amount for the sub-network for historical gas day i for gas day D ; ~~and~~

ΔSBR_i^D = the delta summed basic-meter reconciliation amount for each user for the sub-network for historical gas day i calculated under ~~rule~~ clause 234 for gas day D ; ~~and~~

- (2) For each *sub-network* for each gas day D , [REMCeAEMO](#) must calculate the “**delta unaccounted for gas**” (“ $\Delta UAFG$ ”) for each *historical gas day i* for gas day D as follows:

$$\Delta UAFG_i^D = EUAFG_i^D - EUAFG_i^{D-1}$$

where:

$\Delta UAFG_i^D$ = the *delta unaccounted for gas* for the *sub-network* for *historical gas day i* for gas day D ;

$EUAFG_i^D$ = the *EUAFG* for the *sub-network* for *historical gas day i* for gas day D provided to [REMCeAEMO](#) under [rule clause 229\(1\)](#) or [238\(2\)](#), as applicable; and

$EUAFG_i^{D-1}$ = the *EUAFG* for the *sub-network* for *historical gas day i* for gas day $D-1$ provided to [REMCeAEMO](#) under [rule clause 229\(1\)](#) or [238\(2\)](#), as applicable.

- (3) For each *user* for each *sub-network* for each gas day D , [REMCeAEMO](#) must calculate, and by no later than the end of gas day $D+1$ notify the user of, the “**daily unaccounted for gas reconciliation amount**” for each *historical gas day i* as follows:

$$UDURA_{i,u}^D = \frac{UUAFG_u}{\sum_{All\ users} UUAFG_u} \times (\Delta UAFG_i^D - T\Delta\Delta SBR_i^D)$$

where:

$UDURA_{i,u}^D$ = the *user’s daily unaccounted for gas reconciliation amount* for user u for *historical gas day i* for gas day D ;

$UUAFG_u$ = the *user’s unaccounted for gas* for user u for gas day D notified under [rule clause 229](#);

$\Delta UAFG_i^D$ = the *delta unaccounted for gas* for the *sub-network* for *historical gas day i* for gas day D calculated under [rule clause 240\(2\)](#);

$T\Delta\Delta SBR_i^D$ = the *total delta basic-meter reconciliation amount* for the *sub-network* for *historical gas day i* for gas day D ; and

i = a *historical gas day i* in the range of gas day $D-1$ to gas day $D-425$.

Provided that, if:

$$\sum_{All\ users} UUAFG_u = \text{zero}$$

then **REMCeAEMO** must calculate the “daily unaccounted for gas reconciliation amount” using the values for $UUAFG_U$ and $\sum_{\text{All users}} UUAFG_U$ from the previous gas day on which $\sum_{\text{All users}} UUAFG_U$ was not equal to zero.

241. User’s unaccounted for gas reconciliation amount

For each sub-network, for each user notified to **REMCeAEMO** as a supplier of UAFG under **rule clause** 229 for gas day D , **REMCeAEMO** must calculate the “user’s unaccounted for gas reconciliation amount” for gas day D (“UUAFGRA”) as follows:

$$UUAFGRA = \sum_{i=D-425}^{D-1} UDURA_i^D$$

where:

$UUAFGRA$ = the user’s unaccounted for gas reconciliation amount for the sub-network for gas day D ; -and

$UDURA$ = the user’s daily unaccounted for gas reconciliation amount for the sub-network for historical gas day i for gas day D calculated under **rule clause** 240.

242. Total reconciliation amount for a user

For each user for each sub-network, **REMCeAEMO** must calculate the user’s “total reconciliation amount” for gas day D as follows:

$$TRA = TBRA + TIRA + TBWRA + UUAFGRA + \sum MRA$$

where:

TRA = the user’s total reconciliation amount for the sub-network for gas day D ;

$TBRA$ = the user’s total basic-meter reconciliation amount for the sub-network for gas day D calculated under **rule clause** 235;

$TIRA$ = the user’s total interval-meter reconciliation amount for the sub-network for gas day D calculated under **rule clause** 236;

$TBWRA$ = the user’s total basic-meter withdrawal reconciliation amount for the sub-network for gas day D calculated under **rule clause** 237;

$UUAFGRA$ = the user's unaccounted for gas reconciliation amount for the sub-network for gas day D calculated under [rule clause 241](#); and

MRA = each of the user's miscellaneous reconciliation amounts for the sub-network for gas day D calculated under [rule clause 239](#).

243. [REMCoAEMO](#) calculates adjustment amounts

- (1) For each user for each sub-network [REMCoAEMO](#) must calculate the "user's reconciliation adjustment amount" for gas day D as follows:

$$URAA_D = \sum_{i=D-(X-1)}^D \frac{TRA_i}{X}$$

where:

$URAA_D$ = the user's reconciliation adjustment amount for the sub-network for gas day D ;

TRA_i = the user's total reconciliation amount for the sub-network for gas day i calculated under [rule clause 242](#);

i = the number of a gas day from gas day $D-(X-1)$ to gas day D ; and

X = a variable.

- (2) For each gate point, [REMCoAEMO](#) must calculate the "gate point adjustment amount" for gas day D as follows:

$$GAA^D = \sum_{i=D-(X-1)}^D \frac{T\Delta\Delta_i^P}{X}$$

where:

GAA^D = the gate point adjustment amount for the gate point for gas day D ;

$T\Delta\Delta_i^P$ = the total delta pipeline injection for the gate point for gas day i calculated under [rule clause 238\(4\)](#);

i = the number of a gas day from gas day $D-(X-1)$ to gas day D ; and

X = a variable.

- (3) For each user for each sub-network [REMCoAEMO](#) must calculate the "user's unaccounted for gas reconciliation adjustment amount" for gas day D as follows:

$$UUAFGRAA_D = \sum_{i=D-(X-1)}^D \frac{UUAFGRA_i}{X}$$

Where:

$UUAFGRAA_D$ = the user's unaccounted for gas reconciliation adjustment amount for the sub-network for gas day D ;

$UUAFGRA_i$ = the user's unaccounted for gas reconciliation amount for the sub-network for gas day i calculated under [rule clause 241](#);

i = the number of a gas day from gas day $D - (X - 1)$ to gas day D ; and

X = a variable.

(4) The value to be used for the variables in [rule clause 243\(1\)](#), [243\(2\)](#), and [243\(3\)](#) is:

X = 28.

244. [REMCo AEMO](#) notifies reconciliation and adjustment amounts

(1) For each sub-network, before the end of gas day $D+1$, [REMCo AEMO](#) must notify each user and the network operator of:

- (a) the user's total reconciliation amount for the sub-network for gas day D calculated under [rule clause 242](#) and the amount of each component contained in the user's total reconciliation amount;
- (b) if the user's total reconciliation amount for gas day D contains a miscellaneous reconciliation amount, for each miscellaneous reconciliation amount contained in the total reconciliation amount:
 - (i) information regarding the event that gave rise to [REMCo AEMO](#)'s determination of the miscellaneous reconciliation amount;
 - (ii) the sum, across all users in the sub-network, of the miscellaneous reconciliation amounts that arose from the event referred to in [rule clause 244\(1\)\(b\)\(i\)](#);
 - (iii) the gas day or gas days in respect of which the miscellaneous reconciliation amount arose; and
 - (iv) details regarding the approach used by [REMCo AEMO](#) to determine the miscellaneous reconciliation amount;
- (c) the user's reconciliation adjustment amount and the user's unaccounted for gas reconciliation adjustment amount for the sub-network for gas day D calculated under [rule clause 243](#);

- (d) for each *historical gas day i*, the user's *delta summed basic-meter reconciliation amount* for the *sub-network* for gas day *D* (" $\Delta SBRA_i$ ") calculated under [rule clause 234](#);
 - (e) for each *historical gas day i*, the user's *delta basic-meter withdrawal reconciliation amount* for the *sub-network* for gas day *D* (" $\Delta BWRA_i$ ") calculated under [rule clause 237\(1\)](#);
 - (f) for gas day *D* and for each *historical gas day i*, the *normalisation factor* for gas day *D* calculated under [rule clause 225](#);
 - (g) for gas day *D* and for each *historical gas day i*, the *net system load* for gas day *D* calculated under [rule clause 223](#); and
 - (h) for gas day *D* the user's *basic-metered withdrawals* calculated under [rule clause 230\(1\)](#).
- (2) For each *sub-network*, before the end of gas day *D+1*, **REMCeAEMO** must notify each user, the *network operator* and each *pipeline operator* of:
- (a) the *total delta pipeline injection* for each *gate point* for gas day *D* calculated under [rule clause 238\(4\)](#); and
 - (b) the *gate point adjustment amount* for each *gate point* for gas day *D* calculated under [rule clause 243\(2\)](#).
- (3) For each *gate point*, before the end of gas day *D + 1*, **REMCeAEMO** must notify each user, the *network operator* and the *pipeline operator* of:
- (a) The *pipeline injections* for gas day *D* used in the calculations under [rule clause 220\(2\)](#); and
 - (b) The *pipeline corrected injections* for gas day *D* calculated under [rule clause 220\(2\)](#).

245. Timing of adjustment amounts and injection of reconciliation amounts

- (1) A user must ensure that the *user's reconciliation adjustment amount* calculated on gas day *D* is included in the amount it procures under [rule clause 178](#) for *injection* on gas day *D+2*.
- {Example: The URAA which relates to gas flows on the Monday gas day, will be calculated before the end of the Tuesday gas day (gas day *D*) and must be *injected* on the Thursday gas day (gas day *D+2*). This contrasts with the SRQ which under [rule clause 298](#) must be *repaid* 24 hours earlier. The URAA is offset by 24 hours to allow **REMCeAEMO** time to complete the required calculations.}
- (2) **REMCeAEMO** must apply a *gate point adjustment amount* calculated on gas day *D* under [rule clause 243\(2\)](#) to correct the *pipeline injections* for the *gate point* for gas day *D+2* under [rule clause 220](#).

Part 5.8 – Deemed injections

246. Calculate shipper's deemed injections

- (1) For each *shipper* or *swing service provider* (as applicable) for each *gate point* for each *gas day*, within 5 hours, as applicable, after the end of the *gas day*, ~~REMC~~*AEMO* must calculate, and advise the *shipper* or *swing service provider* (as applicable) and the *pipeline operator* of the *shipper's deemed injections* by:
 - (a) first, for each *user* in the *sub-network*, taking the *user's estimated total withdrawals* in the *sub-network* for the *gas day* calculated under ~~rule~~*clause* 228 and allocating it across *shippers* or *swing service providers* (as applicable):
 - (i) for each part of the *user's estimated total withdrawals* that is one of the *user's swing service repayment quantities* for the *sub-network* for the *gas day*, to the *swing service provider* who must *repay* the *user's swing service repayment quantity* under ~~rule~~*clause* 299; and
 - (ii) for the remainder of the *user's estimated total withdrawals* – in accordance with the *user's allocation instruction* for the *gas day* under ~~rule~~*clause* 188;
 - and
 - (b) then summing all amounts allocated by *user* to the *shipper* or *swing service provider* (as applicable) under ~~rule~~*clause* 246(1)(a).
- (2) To avoid doubt, if ~~rule~~*clause* 178 requires a *user* to procure the *injection* into the *sub-network* of a negative amount of gas on a *gas day*, that negative amount may result in a negative *shipper's deemed injection* for the *gas day*.

{Note: Any negative *shipper's deemed injection* may be resolved between the *user* and its *related shipper*, between the *shipper* and the *pipeline operator* or by an arrangement with another *user*.}

247. There is no ~~rule~~*clause* 247

248. Calculate user's deemed withdrawals for a pipeline

- (1) For each *user* for each *gate point* for each *gas day*, within 5 hours after the end of the *gas day*, ~~REMC~~*AEMO* must calculate, and *notify* the *user* and the *network operator* of the *user's deemed withdrawals* ("UDW") by:
 - (a) first, taking the *user's estimated total withdrawals* for the *sub-network* for the *gas day* calculated under ~~rule~~*clause* 228 and allocating it across the *user's related shippers* or *swing service providers* (as applicable):
 - (i) for each part of the *user's estimated total withdrawals* that is one of the *user's swing service repayment quantities* for the *sub-network* for the *gas day*, to the *swing service provider* who must *repay* the *user's swing service repayment quantity* under ~~rule~~*clause* 299; and
 - (ii) for the remainder of the *user's estimated total withdrawals* – in accordance with the *user's allocation instruction* for the *gas day* under ~~rule~~*clause* 188;

and

- (b) then, summing the amounts calculated under [ruleclause](#) 248(1)(a) in respect of all of the *user's related shippers* or *swing service providers* (as applicable) for the *gate point*.

- (2) To avoid doubt, if [ruleclause](#) 178 requires a *user* to procure the *injection* into the *sub-network* of a negative amount of gas on a *gas day*, that negative amount may result in negative *user's deemed withdrawals* for the *gas day*.

{Note: Any negative *user's deemed withdrawals* may be resolved between the *user* and its *related shipper*, between the *shipper* and the *pipeline operator* or by an arrangement with another *user*.}

Part 5.9– Delivery point apportionment and hourly gate point apportionment

Division 5.9.1 – Delivery point apportionment

249. Actual allocation proportion

- (1) For each *user* for each *sub-network* for each *gas day*, ~~REMC~~[AEMO](#) must calculate the *user's "actual allocation proportion"* for each *shipper* named in the *user's allocation instruction*, which is expressed as a percentage and is calculated as follows:
 - (a) if the *user's allocation instruction* is expressed solely in terms of percentages – is the same as the percentage allocated to the *shipper* in the *allocation instruction*; and
 - (b) otherwise — is calculated as follows:

$$AAP = \frac{SA}{(UETW - \Sigma SRQ)}$$

where:

AAP = the *user's actual allocation proportion* for the *shipper* for the *sub-network* for the *gas day*;

SA = the "**shipper's amount**" which is calculated by:

- A. applying the *user's allocation instruction* for the *sub-network* for the *gas day*;
- B. to the *user's estimated total withdrawals* for the *sub-network* for the *gas day* calculated under [ruleclause](#) 228, minus the *user's swing service repayment quantities* for the *sub-network* for the *gas day* calculated under [ruleclause](#) 299;

UETW = the *user's estimated total withdrawals* for the *sub-network* for the *gas day* calculated under [ruleclause](#) 228; and

SRQ = each of the *user's swing service repayment quantities* for repayment on the gas day calculated under [rule clause 299](#).

250. Allocation proportions apply at delivery points

Wherever it is necessary for these [rules procedures](#) or a *haulage contract* to apportion a *user's* gas withdrawals at a *delivery point* for a gas day between *shippers* or *swing service provider* (as applicable), the withdrawals are to be apportioned using the *user's actual allocation proportion* and the *user's swing service repayment quantity* (as applicable) for the gas day for the *sub-network*.

Division 5.9.2 – Hourly gate point apportionment

251. User's hourly interval-metered withdrawals

For each *user* for each *sub-network* for each hour for each gas day, [REMCo AEMO](#) must calculate the *user's "hourly interval-metered withdrawals"* ("HIW") as follows:

$$HIW = \sum HW$$

where:

HIW = the *user's hourly interval-metered withdrawals* for the *sub-network* for the hour for the gas day; and

HW = the *interval-metered withdrawals* for each of the *user's interval-metered delivery points* in the *sub-network* for the hour for the gas day provided to [REMCo AEMO](#) under [rule clause 151\(1\)](#).

252. Hourly gate point apportionments

(1) For each *user* for each *sub-network* for each gas day, within 5.5 hours after the end of the gas day, [REMCo AEMO](#) must calculate, and advise the *user* of the *user's hourly sub-network apportionment* as follows:

(a) first, for each hour in the gas day, calculate the *hourly net system load* for the *sub-network* as follows:

$$HNSL = \sum HG - \sum HIW - \left(\frac{\sum UAFG}{24} \right) - \left(\frac{\sum SRQ}{24} \right) - \left(\frac{\sum URAA}{24} \right) + \left(\frac{\sum GAA}{24} \right)$$

where:

$HNSL$ = the *hourly net system load* for the *sub-network* for the hour;

HG = the energy inflow data for each *gate point* for the *sub-network* for the hour provided to [REMCo AEMO](#) under [rule clause 152](#);

<i>HIW</i>	=	the <i>hourly interval-metered withdrawals</i> for the <i>sub-network</i> for each <i>user</i> in the <i>sub-network</i> for the hour calculated under rule clause 251 ;
<i>EUAFG</i>	=	the estimate of <i>UAFG</i> provided by the <i>network operator</i> for the <i>sub-network</i> for the <i>gas day</i> under rule clause 229(1) ;
<i>SRQ</i>	=	each <i>swing service repayment quantity</i> for each <i>user</i> for the <i>sub-network</i> for <i>repayment</i> on the <i>gas day</i> calculated under rule clause 299 .
<i>URAA</i>	=	the <i>user's reconciliation adjustment amount</i> for each <i>user</i> for the <i>sub-network</i> for <i>repayment</i> on the <i>gas day</i> calculated under rule clause 243 ; and
<i>GAA</i>	=	each <i>gate point adjustment amount</i> calculated under rule clause 243(2) to correct the <i>pipeline injections</i> for a <i>gate point</i> for the <i>gas day</i> under rule clause 220 .

- (b) then, for each hour in the *gas day* calculate the *user's hourly basic-meter withdrawals* for the *sub-network* as follows:

$$HBW = HNSL \times \left(\frac{UEBW}{NSL} \right)$$

where:

<i>HBW</i>	=	the <i>hourly basic-meter withdrawals</i> for the <i>sub-network</i> ;
<i>HNSL</i>	=	the <i>hourly net system load</i> for the <i>sub-network</i> for the hour calculated under rule clause 252(1)(a) ;
<i>UEBW</i>	=	the <i>user's estimated basic-metered withdrawals</i> for the <i>sub-network</i> for the <i>gas day</i> 227; and
<i>NSL</i>	=	the <i>net system load</i> for the <i>sub-network</i> for the <i>gas day</i> calculated under rule clause 223 .

- (c) then, for each hour in the *gas day* calculate the *user's hourly (non-swing) sub-network apportionment* for the *sub-network* as follows:

$$UHSA = HIW + HBW + \left(\frac{UUAFG}{24} \right) + \left(\frac{URAA}{24} \right)$$

where:

<i>UHSA</i>	=	the <i>user's hourly sub-network apportionment</i> for the <i>sub-network</i> for the hour for the <i>gas day</i> ;
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HIW = the user's hourly interval-metered withdrawals for the sub-network for the hour calculated under ~~rule~~[clause](#) 251;

HBW = the user's hourly basic-meter withdrawals for the sub-network calculated under ~~rule~~[clause](#) 252(1)(b);

UUAFG = the user's UAFG for the sub-network for the gas day notified to ~~REMC~~[CoAEMO](#) under ~~rule~~[clause](#) 229(1); ~~and~~;

URAA = the user's reconciliation adjustment amount for the sub-network for repayment on the gas day calculated under ~~rule~~[clause](#) 243.

- (2) For each shipper or swing service provider (as applicable) for each gate point for each gas day, within 5.5 hours after the end of the gas day, ~~REMC~~[CoAEMO](#) must calculate, and advise the shipper or swing service provider (as applicable) and the pipeline operator of, the shipper's hourly gate point apportionment as follows:

$$HGA = \sum (AAP \times UHSA) + \frac{\sum SRQ}{24}$$

where:

HGA = the shipper's hourly gate point apportionment for the gate point for the gas day;

AAP = for each user related to the shipper in the sub-network, the user's actual allocation proportion for the shipper for the gate point for the gas day calculated under ~~rule~~[clause](#) 249;

UHSA = for each user related to the shipper in the sub-network, the user's hourly (non-swing) sub-network apportionment for the sub-network for the hour for the gas day calculated under ~~rule~~[clause](#) 252(1)(c), which will be zero for a swing service provider, ~~and~~;

SRQ = each swing service repayment quantity for repayment by the shipper or swing service provider (as applicable) under ~~rule~~[clause](#) 299.

- (3) If ~~REMC~~[CoAEMO](#) does not receive the as-retrieved energy inflow data for a gate point in a sub-network for one or more hours in a gas day under ~~rule~~[clause](#) 210, ~~REMC~~[CoAEMO](#) is not required to perform the calculations set out in this ~~rule~~[clause](#) 252 in respect of the gas day.

Part 5.10 – Calculating swing service

{Note: The calculations in [rules clauses](#) 259-263, 266, 272 and 274 are performed by [REMCeAEMO](#) for each *gate point* in a *sub-network* in respect of each *user*, whether or not the *user's related shippers* ship gas on the *pipeline* for the *gate point*.}

253. First and second gas delivered

On each *gas day* for each *user* for each *sub-network*, for the purposes of this Chapter 5, the gas *injected* or *repaid* (as applicable) into the *sub-network* by or on behalf of the *user* is allocated as follows:

- (a) first, the gas is deemed to be the *user's swing service repayment quantities* for *repayment* on the *gas day* calculated under [rule clause](#) 299 until all of the *user's swing service repayment quantities* have been *repaid*;
- (b) thereafter, the gas is deemed to be the *user's reconciliation adjustment amount* for *injection* on the *gas day* calculated under [rule clause](#) 243 until the full *reconciliation adjustment amount* has been *injected*; and
- (c) thereafter, the remainder of the gas is available to satisfy the *user's* withdrawals from the *sub-network* on the *gas day*.

254. There is no [rule clause](#) 254.

255. Pipeline operator to inform of special circumstances

- (1) If the *pipeline operator* of a *pipeline* is aware of anything which prevented gas deliveries through the *gate point* on the *pipeline* being made in accordance with a *shipper's* request for *injections* or *swing service provider's* request for *repayment* (as applicable) under its *transmission contract* on a *gas day*, in a manner that may have contributed materially to *swing service*, then it must, as soon as practicable, give [REMCeAEMO](#) a description of the cause and circumstances of that prevention, and the manner in which *injections* or *repayments* (as applicable) were affected.
- (2) [REMCeAEMO](#) must, within 1 hour after receiving information under [rule clause](#) 255(1), *promptly* provide the information to each *user* which gave an *allocation instruction* allocating gas to a *shipper* in the *pipeline* for the *gas day*, and each *shipper* named in each such *allocation instruction*.

256. Calculate swing service on pipeline

- (1) For each *gas day* for each *gate point*, [REMCeAEMO](#) must calculate the *swing service* for the *gate point* as follows:

$$SS = \left| \sum UDW(OP) - PCI(OP) \right|$$

where:

SS = the *swing service* for the *gate point* for the *gas day*;

$UDW(OP) =$ each user's deemed withdrawals for the other gate point for the sub-network for the gas day calculated under [rule clause 248](#); and

$PCI(OP) =$ the pipeline corrected injections for the other gate point for the sub-network for the gas day calculated under [rule clause 220\(2\)](#).

- (2) If the swing service calculated under [rule clause 256\(1\)](#) for a gate point for a gas day, prior to having the absolute value sign applied to it:
- (a) is a positive number, the swing service is loan swing service; and
 - (b) is a negative number, the swing service is park swing service,
- for the purposes of this Chapter 5.

257. There is no [rule clause 257](#)

258. There is no [rule clause 258](#)

259. Calculate swing base amount

- (1) For each gas day for each user for each gate point, [REMCo AEMO](#) must calculate the user's "swing base amount" as follows:

$$SBA = |UPNA|$$

where:

$SBA =$ the user's swing base amount for the gate point for the gas day, and

$UPNA =$ the user's pipeline nomination amount for the gate point for the gas day calculated under [rule clause 197](#).

260. Determine swing errors

- (1) For each user for each gate point for each gas day, [REMCo AEMO](#) must determine the user's "swing error" ("SE") as follows:

$$SE = |UPNA - UDW|$$

where:

$SE =$ the user's swing error for the gate point for the gas day;

$UPNA =$ the user's pipeline nomination amount for the gate point for the gas day notified under [rule clause 197](#); and

$UDW =$ the user's deemed withdrawals for the gate point for the gas day calculated under [rule clause 248](#).

261. Calculate each user's user-specific swing error

- (1) For each *user* for each *gate point* for each *gas day*, ~~REMC~~*CoAEMO* must calculate the *user's "user-specific swing error"* as follows:

$$USSE = \max[0, SE - (A \times SBA)]$$

where:

USSE = the *user's user-specific swing error* for the *gate point* for the *gas day*;

SE = the *user's swing error* for the *gate point* for the *gas day* calculated under ~~rule~~*clause* 260;

A = a variable; and

SBA = the *user's swing base amount* for the *gate point* for the *gas day* calculated under ~~rule~~*clause* 259.

- (2) The value to be used for the variable "**A**" in ~~rule~~*clause* 261(1) is 20%.

262. Calculate each user's total (pre-procurement) swing service

For each *gas day* for each *user* for each *gate point*, ~~REMC~~*CoAEMO* must calculate the "*user's total (pre-procurement) swing service*" as follows:

$$USS = \frac{|UETW|}{\sum |UETW|} \times SS$$

where:

USS = the *user's total (pre-procurement) swing service* for the *gate point* for the *gas day*, which is either *loan swing service* or *park swing service*;

|UETW| = the absolute value of the *user's estimated total withdrawals* for the *sub-network* for the *gas day* calculated under ~~rule~~*clause* 228;

$\sum |UETW|$ = the sum of the absolute value of each *user's user's estimated total withdrawals* for all *users* in the *sub-network* for the *gas day* calculated under ~~rule~~*clause* 228; and

SS = the *swing service* for the *gate point* for the *gas day* calculated under ~~rule~~*clause* 256, which under ~~rule~~*clause* 256(2) is either *loan swing service* or *park swing service*.

263. Calculate each user's user-specific amount of swing service (if any)

For each *user* for each *gate point* for each *gas day*, ~~REMC~~*CoAEMO* must calculate the *user's user-specific amount of swing service* as follows:

$$USA = \frac{\sum_{GP} |USSE|}{\sum_{GP} |SE|} \times USS$$

where:

USA = the user's user-specific amount of swing service for the gate point for the gas day;

USSE = each of the user's user-specific swing errors for each gate point for the sub-network for the gas day calculated under [rule clause 261](#);

SE = each of the user's swing errors for each gate point for the sub-network for the gas day calculated under [rule clause 260](#); and

USS = the user's total (pre-procurement) swing service for the gate point for the gas day calculated under [rule clause 262](#).

264. Calculate the total of all users' user-specific amounts of swing service

For each gate point for each gas day, [REMC](#) [AEMO](#) must calculate the total of all users' user-specific amounts of swing service as follows:

$$TUSA = \sum USA$$

where:

TUSA = the total of all users' user-specific amounts of swing service for the gate point for the gas day; and

USA = the user-specific amount of swing service for each user for the gate point for the gas day calculated under [rule clause 263](#).

265. Calculate total non-user-specific pre-procurement amount of swing service

For each gate point for each gas day, [REMC](#) [AEMO](#) must calculate the total of all users' non-user-specific amounts of swing service as follows:

$$TUNUSA = SS - TUSA$$

where:

TUNUSA = the total of all users' non-user-specific amounts of swing service for the gate point for the gas day;

SS = the swing service for the gate point for the gas day calculated under [rule clause 256](#); and

$TUSA =$ the total of all *users' user-specific amounts of swing service* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 264.

266. Calculate each user's non-user-specific pre-procurement amount of swing service

- (1) For each *user* for each *gate point* for each *gas day*, ~~REMC~~[AEMO](#) must determine the *user's non-user-specific amount of swing service* as follows:

$$NUSA = USS - USA$$

where:

$NUSA =$ the *user's non-user-specific amount of swing service* for the *gate point* for the *gas day*;

$USS =$ the *user's total (pre-procurement) swing service* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 262; and

$USA =$ the *user's user-specific amount of swing service* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 263.

Part 5.11– Off-market swing service procurement

267. Off-market swing service procurement instruction

- (1) Subject to this Part 5.11, for each *gate point* for each *gas day*, a *user* may provide a “**procurement instruction**” to ~~REMC~~[AEMO](#), for the *user* to procure off-market part or all of its *swing service* for the *gas day* from one or more *swing service providers*.
- (2) A *procurement instruction* must specify the *gas day* to which it applies, and may be provided to ~~REMC~~[AEMO](#) no earlier than one year before, and no later than 30 minutes before, the start of the *gas day*.

{Note: A *user* who wishes to lodge a “standing procurement instruction” for, say, a year in advance can achieve this result by lodging 365 separate daily *procurement instructions* in advance.}

- (3) To be valid, a *procurement instruction* must contain one or more requests to ~~REMC~~[AEMO](#) to allocate *swing service* in accordance with arrangements made by the *user* to procure off-market (each a “**procurement request**”) for the *gas day*, each of which sets out:
- (a) the *gate point* for the *procurement instruction*;
 - (b) the name of the *swing service provider* from which the *user* wishes to procure off-market, provided that the *swing service provider* is listed in the *shipper register* as a *swing service provider* for the *user* lodging the *procurement instruction* in respect of the *pipeline* and *sub-network* to which the *procurement instruction* relates;

- (c) the maximum quantity of *swing service* the *user* wishes to procure off-market under the *procurement request*, expressed in whole megajoules;
- (d) whether the *user* wishes to procure a *park swing service* or a *loan swing service*;
- (e) the priority the *user* wishes ~~REMC~~*AEMO* to afford the *procurement request* as against the other *procurement requests* set out in the *user's procurement instruction*;
- (f) whether, if ~~REMC~~*AEMO* applies the *procurement request* under ~~rule~~*clause* 270 to make the *procurement request* an “**applied request**”, the *swing service* procured in the *applied request* will be *repaid* on the *user's* behalf by:
 - (i) the *swing service provider* from whom the *user* procured the *swing service*; or
 - (ii) one or more *swing service providers* other than the *swing service provider* named in the *procurement request* under ~~rule~~*clause* 267(3)(b), in which case the *user* must specify, subject to ~~rule~~*clause* 267(3A), the name of each *swing service provider*, and the proportion of *swing service* the *swing service provider* will repay.

(3A) A *user* may only specify the name of a *swing service provider* under ~~rule~~*clause* 267(3)(f)(ii) if that *swing service provider*:

- (a) is a *swing service provider* on the same *pipeline* as the *swing service provider* from whom the *user* procured the *swing service*; and
- (b) is listed in the *shipper register* as a *swing service provider* for the *user* lodging the *procurement instruction* in respect of the *pipeline* and *sub-network* to which the *procurement instruction relates*; and
- (c) its listing on the *shipper register* for the procuring *user* and the *sub-network* is effective for the *gas day* to which the *procurement request* relates.

(4) By providing a *procurement instruction* under this Part 5.11, a *user* warrants and represents to ~~REMC~~*AEMO* that:

- (a) each of the *swing service providers* set out in the *procurement instruction* under ~~rule~~*clause* 267(3)(b) agrees to, and has sufficient contractual entitlements to, provide *swing service* to the *user* in accordance with the *procurement request* listed in the *procurement instruction* on the *gas day* to which the *procurement instruction* applies; and
- (b) each of the *swing service providers* set out in the *procurement instruction* under ~~rule~~*clause* 267(3)(f) agrees to, and has sufficient contractual entitlements to, repay the appropriate *swing service repayment quantity* on the *user's* behalf two days after the *gas day* to which the *procurement instruction* applies.

{Note: Under ~~rule~~*clause* 376A(2), a breach of this warranty will expose the *user* to liability for more than just direct damage.}

- (5) A user may withdraw or vary a *procurement instruction* it has lodged under [rule clause 267\(1\)](#) for a *gate point* which applies to a *gas day* if the request to withdraw or vary is received by [REMCeAEMO](#) at least 30 minutes before the start of the *gas day*.

268. Swing service provider gives [REMCeAEMO](#) off-market swing service procurement confirmation

- (1) For each *user* for each *gate point* for each *gas day*, where a *user* provides a *procurement instruction* to [REMCeAEMO](#), the *user* must endeavour to procure each *swing service provider* listed in a *procurement request* to provide, by no later than 30 minutes before the start of the *gas day*, a “**procurement confirmation**” to [REMCeAEMO](#), which is a statement by the *swing service provider* that it agrees to provide *swing service* to the *user* for the *gas day* in accordance with the corresponding *user’s procurement request* and sets out the following information in respect of the *procurement confirmation*:

- (a) the *gate point* to which it applies;
- (b) the name of the *user* to which it applies;
- (c) the maximum quantity of *swing service* the *swing service provider* is willing to provide to the *user*, expressed in megajoules, which must be equal to or more than the quantity set out in the corresponding *user’s procurement request*;
- (d) whether the *swing service provider* will provide a *park swing service* or a *loan swing service*.

- (2) A *procurement confirmation* must specify the *gas day* to which it applies.

- (3) By providing a *procurement confirmation* under this Part 5.11, a *swing service provider* warrants and represents to [REMCeAEMO](#) that the *swing service provider* has sufficient contractual entitlements to provide *swing service* to the *user* in accordance with the corresponding *user’s procurement request* on the *gas day* to which the *procurement confirmation* applies.

{Note: Under [rule clause 376A\(2\)](#), a breach of this warranty will expose the *swing service provider* to liability for more than just direct damage.}

269. [REMCeAEMO](#) validates users’ procurement requests and provides status report

- (1) For each *gate point* for each *gas day*:
- (a) first, by no later than 16 hours before the start of the *gas day* (“**first check**”); and
 - (b) then again, after 30 minutes before the start of the *gas day* (“**final check**”),

[REMCeAEMO](#) must assess each *procurement request* in each *user’s procurement instruction* and each *procurement confirmation* to determine whether [REMCeAEMO](#) has received, as appropriate, a corresponding *procurement confirmation* from a *swing service provider* or corresponding *procurement request* from a *user*.

- (2) By no later than 16 hours before the start of the *gas day*, and again during the 30 minute period immediately preceding the start of the *gas day*, [REMCeAEMO](#) must provide a “**status report**”:
- (a) to each *user*, setting out each *procurement request* in the *user’s procurement instruction* for the *gas day* for which [REMCeAEMO](#) has received a corresponding *procurement confirmation* from a *swing service provider* at the time of the *first check*; and
 - (b) to each *swing service provider*, setting out each of the *swing service provider’s procurement confirmations* for the *gas day* for which [REMCeAEMO](#) has received a corresponding *procurement request* from a *user* at the time of the *first check*.
- (3) Each *procurement request* in a *user’s procurement instruction* for which [REMCeAEMO](#) identifies a corresponding *procurement confirmation* from a *swing service provider* at the time of the *final check* is a “**validated procurement request**”, and may be applied by [REMCeAEMO](#) if appropriate under [rule clause 270](#).

270. [REMCeAEMO](#) to calculate off-market swing service procurement – applied requests

For each *user* for each *gate point* for each *gas day*, [REMCeAEMO](#) must apply (“**applied request**”) the *user’s validated procurement requests* in the priority order specified by the *user*, until all of the *user’s total (pre-procurement) swing service* is exhausted:

- (a) first, against the *user’s non-user-specific amount* of *swing service* calculated under [rule clause 266](#);
- and, if the *user’s validated procurement requests* exhaust the *user’s non-user-specific amount* of *swing service*:
- (b) then, against the *user’s user-specific amount* of *swing service* calculated under [rule clause 263](#).

271. [REMCeAEMO](#) to calculate surplus swing service

For each *procurement confirmation*, [REMCeAEMO](#) must determine the amount of *swing service* set out in the *procurement confirmation* which was not applied against a *user’s swing service* under [rule clause 270](#) (“**surplus**”).

272. Adjust non-user-specific amounts for outcomes of off-market swing service procurement

For each *user* for each *gate point* for each *gas day*, [REMCeAEMO](#) must determine the *user’s “adjusted non-user-specific amount”* of *swing service* as follows:

$$ANUSA = NUSA(PP) - NUSA(POM)$$

where:

$ANUSA$	=	the user's adjusted non-user-specific amount of swing service for the gate point for the gas day;
$NUSA(PP)$	=	the user's non-user-specific (pre-procurement) amount of swing service for the gate point for the gas day calculated under rule clause 266 ; and
$NUSA(POM)$	=	the amount of non-user-specific swing service that the user has procured off-market for the gate point for the gas day determined under rule clause 270 .

273. Calculate users' total adjusted non-user-specific amounts

For each gate point for each gas day, [REMC](#)[AEMO](#) must calculate the total of all users' adjusted non-user-specific amounts of swing service as follows:

$$TANUSA = \sum ANUSA$$

where:

$TANUSA$	=	the total of all users' adjusted non-user-specific amounts of swing service for the gate point for the gas day; and
$ANUSA$	=	each user's adjusted non-user-specific amount of swing service for the gate point for the gas day calculated under rule clause 272 .

274. Adjust user-specific amounts for outcomes of off-market swing service procurement

For each user for each gate point for each gas day, [REMC](#)[AEMO](#) must determine the user's "adjusted user-specific amount" of swing service as follows:

$$AUSA = USA - USA(POM)$$

where:

$AUSA$	=	the user's adjusted user-specific amount of swing service for the gate point for the gas day;
USA	=	the user's user-specific amount of swing service for the gate point for the gas day calculated under rule clause 263 ; and
$USA(POM)$	=	the user-specific amount of swing service that the user has procured off-market for the gate point for the gas day determined under rule clause 270 .

275. Calculate users' total adjusted user-specific amounts

For each gate point for each gas day, [REMC](#)[AEMO](#) must calculate the total of all users' adjusted user-specific amounts of swing service as follows:

$$TAUSA = \sum AUSA$$

where:

TAUSA = the total of all *users' adjusted user-specific amounts of swing service* for the *gate point* for the *gas day*; -and

AUSA = each *user's adjusted user-specific amount of swing service* for the *gate point* for the *gas day* calculated under [rule clause 274](#).

276. Calculate total swing service to be procured through *bid-stack*

For each *gate point* for each *gas day*, [REMCoAEMO](#) must calculate the total amount of *swing service* to be procured through the applicable *bid stack* as follows:

$$TSS(BS) = TANUSA + TAUSA$$

where:

TSS(BS) = the total amount of *swing service* to be procured through the applicable *bid stack* for the *gate point* for the *gas day*;

TANUSA = the total of all *users' adjusted non-user-specific amounts of swing service* for the *gate point* for the *gas day* calculated under [rule clause 273](#); and

TAUSA = the total of all *users' adjusted user-specific amounts of swing service* for the *gate point* for the *gas day* calculated under [rule clause 275](#).

Part 5.12 – Allocating swing service in bid stack

277. Subscription for information

- (1) A person may apply to [REMCoAEMO](#) to become a “**subscriber**” for a *sub-network* for a year upon:
 - (a) the payment of an annual fee nominated by [REMCoAEMO](#) from time to time; and
 - (b) agreeing to be bound by any confidentiality obligations specified by [REMCoAEMO](#) from time to time.
- (2) For each *gas day*, by no later than 7 hours after the end of the *gas day*, [REMCoAEMO](#) must *notify* each *subscriber* of the following data for the *sub-network*:
 - (a) each *bid stack* for the *gas day*, as described in [rule clause 286](#);
 - (b) for each *gate point*, the *marginal clearing price* for the total amount of *swing service* to be procured through the *bid stack* for the *gas day* determined under [rule clause 287](#);

(c) for each *gate point*, the *marginal clearing price* for the total of all *adjusted non-user-specific amounts* of *swing service* to be procured through the *bid stack* for the *gas day* determined under [rule clause 288](#); and

(d) for each *gate point*, the *swing service* calculated under [rule clause 256](#).

278. Users appoint REMCoAEMO as agent for entering into SSPUDs etc.

(1) Each user severally appoints [REMCoAEMO](#) as its *agent* for the following:

(a) to enter into a SSPOLRUD with a SSPOLR; and

(b) to issue an *admission notice* in respect of the *user*.

(2) Each user severally appoints [REMCoAEMO](#) as its *agent* for the following:

(a) to enter into a SSPUD with a *swing service provider*; and

(b) to issue an *admission notice* in respect of the *user*.

(3) The agency set out in [rules clauses 278\(1\) and 278\(2\)](#) is irrevocable for so long as the *user* remains a *user*.

(4) Nothing in this [rule clause 278](#) limits the authority which *users* may otherwise give to [REMCoAEMO](#) by unanimous prior written consent.

279. Swing service providers

For each *gate point*, [REMCoAEMO](#) may enter into one or more *swing service provision umbrella deeds* (“SSPUD”) in the form set out in Appendix 7 with one or more *swing service providers* (“SSP”).

280. Swing service provider of last resort

(1) For each *gate point*, for each of *park swing service* and *loan swing service*, [REMCoAEMO](#) must enter into a *swing service provider of last resort umbrella deed* (“SSPOLRUD”) in the form set out in Appendix 8 with a *swing service provider of last resort* (“SSPOLR”).

(2) [REMCoAEMO](#) may enter into a SSPOLRUD with more than one SSPOLR (for example, for different SSPOLRs to provide *swing service* on different days of the week), but for each *gate point* for each *gas day* for each of *park swing service* and *loan swing service*, there must be one and only one SSPOLR.

(3) A SSPOLR may not be appointed unless chosen as a result of a competitive tender process which is designed and conducted by [REMCoAEMO](#):

(a) to the standard of a *reasonable and prudent person*; and

(b) with a view to minimising (as far as possible in the view of a *reasonable and prudent person*) the SSPOLR price.

281. Swing service bids

- (1) A *swing service provider* who is party to a *SSPUD* may lodge a *bid book* with ~~REMC~~CoAEMO for a *gate point* for a *gas day*.
- (2) A *bid book* must specify the *gas day* to which it applies, and may be lodged with ~~REMC~~CoAEMO no earlier than one year before, and no later than 30 minutes before, the start of the *gas day*.

{Note: A *swing service provider* who wishes to lodge a “standing *bid book*” for, say, a year in advance can achieve this result by lodging 365 separate daily *bid books* in advance.}

- (3) A *bid book* must contain one or more *bids* for the provision of *swing service* for the *gas day* to which the *bid book* applies.
- (4) The maximum amount of *swing service* specified in a *bid*:

(a) may be expressed either:

- (i) as a fixed amount; or
- (ii) as part or all (in accordance with this ~~rule~~clause 281(4)) of the *surplus* of a *procurement confirmation*, if any, determined by ~~REMC~~CoAEMO under ~~rule~~clause 271 after the end of the *gas day*; and

~~{Note: A rule is to be developed after go-live date to accommodate the following additional subrule:~~

~~“or (iii) as part or all (in accordance with this rule 281(4)) of what remains after deducting the user’s estimated total withdrawals for the gas day calculated under rule 228 from a fixed amount specified by the user;”.~~

and

- (b) must be expressed in such a way that ~~REMC~~CoAEMO can determine, after the end of the *gas day*, the maximum amount of *swing service* being offered.
- (5) A *swing service provider* may withdraw or vary a *bid book* it has lodged under ~~rule~~clause 281(1) for a *gate point* which applies to a *gas day* if the request to withdraw or vary is received by ~~REMC~~CoAEMO at least 30 minutes before the start of the *gas day*.
- (6) A *swing service provider* that lodges a *bid book* with ~~REMC~~CoAEMO which applies to a *gas day* under this ~~rule~~clause 281 consents to ~~REMC~~CoAEMO making available the *bids* in the *bid book* after the *gas day* as part of the *bid stack*, as set out in ~~rules~~clauses 277 and 286.

282. Requirements for valid bid

A *bid* in a *bid book* lodged under ~~rule~~clause 281(1) for a *gate point* is valid if:

- (a) the person lodging the *bid book* is a party to a *SSPUD* as a *swing service provider*;
- (b) the *bid book* was lodged at least 30 minutes before the start of the *gas day* to which it applies;

- (c) the *bid* specifies a price for the provision of the *swing service* in cents, up to three decimal places, per megajoule;
- (d) the *bid* specifies whether the *bid* relates to a *park swing service* or a *loan swing service*; and
- (e) subject to [rule clause 281\(4\)](#), the *bid* specifies the maximum amount of *swing service* the *swing service provider* will provide under the *bid*.

283. If bid is not valid

Upon receipt of a *bid book* under [rule clause 281\(1\)](#) which contains a *bid* which is not valid, [REMCoAEMO](#) must *immediately*:

- (a) reject the *bid book*; and
- (b) *notify* the person that lodged the *bid book* that the *bid book* has been rejected and provide the reason why the relevant *bid* or *bids* are not valid.

284. If bid is valid [REMCoAEMO](#) accepts it into bid stack

Upon receipt of a *bid book* for a *gate point* for a *gas day* under [rule clause 281\(1\)](#) in which every *bid* is valid, then [REMCoAEMO](#) must forthwith:

- (a) remove from both *bid stacks* for the *gate point* for the *gas day* each *bid* currently in the *bid stack* from the *swing service provider*; and
- (b) accept each *bid* from the *bid book* into the appropriate *bid stack* for the *gate point* for the *gas day* under [rule clause 285](#).

285. [REMCoAEMO](#) bid stacks

- (1) For each *gate point* for each *gas day*, [REMCoAEMO](#) must create and administer two “**bid stacks**”, one for each of *park swing service* and *loan swing service*, for all *bids* accepted under [rule clause 284](#) as follows (subject to [rule clause 285\(2\)](#)):
 - (a) [REMCoAEMO](#) must arrange the *bids* in each *bid stack* in order from lowest price (at the bottom) to highest price (at the top);
 - (b) [REMCoAEMO](#) must add new *bids* to the *bid stack* in price order in accordance with [rule clause 285\(1\)\(a\)](#), regardless of when they are received;
 - (c) if two *bids* in the same *bid stack* specify the same price, [REMCoAEMO](#) must place the *bid* which specifies the larger volume in the *bid stack* beneath the *bid* which specifies the smaller volume; and
 - (d) if two or more *bids* in the same *bid stack* specify the same price and the same volume, [REMCoAEMO](#) must place the *bids* at the same position in the *bid stack*.
- (2) For each *gate point* for each *gas day* for which there is a *SSPOLR* for *park swing service* or *loan swing service*, as the case may be, the *SSPOLR* is deemed to have lodged a standing *bid* (“**standing SSPOLR bid**”) into the *bid stack*:

- (a) for the supply of *park swing service* or *loan swing service*, as the case may be; and
 - (b) in an amount which (subject to the terms of the *SSPOLRUD*) is unlimited; and
 - (c) at the *SSPOLR price* specified in the *SSPOLRUD*.
- (3) Whenever a *SSPOLR* has a *standing SSPOLR bid* for a *gate point* for a *gas day*, the *standing SSPOLR bid* must be the top (i.e. last to be called upon) *bid* in the *bid stack* regardless of the *SSPOLR price*.

286. **REMCeAEMO** to publish bid stack

For each *gate point*, **REMCeAEMO** must make available the *bid stack* to *users* and *swing service providers* within 5 hours after the end of the *gas day*, setting out for each *bid* the volume and price of the *bid* but not the identity of the *swing service provider* who lodged the *bid*.

287. Determine marginal clearing price for total amount of swing service to be procured through applicable bid-stack

- (1) For each *gate point* for each *gas day*, within 5 hours after the end of the *gas day*, **REMCeAEMO** must determine in accordance with [rule clause 287\(2\)](#), and publish to *users* and *swing service providers*, the *marginal clearing price* for the total amount of *swing service* to be procured through the applicable *bid stack* (“**MCP(TSS(BS))**”), which is expressed in cents, up to three decimal places, per megajoule.
- (2) The **MCP(TSS(BS))** is the price on the *bid stack* which intersects with the total amount of *swing service* to be procured through the *bid stack* for the *gate point* for the *gas day* (“**TSS(BS)**”) calculated under [rule clause 276](#), however **REMCeAEMO** may only use the *standing SSPOLR bid* to determine the **MCP(TSS(BS))** where all the other *bids* in the *bid stack* are exhausted because insufficient *swing service* was *bid* into the *bid stack* to meet the **TSS(BS)**, and then, it may only be used to the extent that such a shortfall exists.
- (3) If, in determining the **MCP(TSS(BS))** under this [rule clause 287](#) **REMCeAEMO** is required to use the *standing SSPOLR bid*, then:
 - (a) if the price specified for the *bid* immediately prior to the *standing SSPOLR bid* is higher than the *SSPOLR price* – the price specified for that *bid* applies to the *standing SSPOLR bid* instead of the *SSPOLR price*; and
 - (b) if the price specified for the *bid* immediately prior to the *standing SSPOLR bid* is lower than the *SSPOLR price* – the *SSPOLR price* applies to the *standing SSPOLR bid*.
- (4) For the purposes of [rule clause 295](#):
 - (a) subject to [rule clause 287\(4\)\(b\)](#), each *bid* in the *bid stack* that is used in setting the **MCP(TSS(BS))** is an “**AUSA bid**”; and

(b) if the quantity of $TSS(BS)$ is less than the aggregate amount of *swing service* in all the *bids* in the *bid stack* up to and including the *bid* or *bids* at which the $MCP(TSS(BS))$ is struck under [rule clause 287\(2\)](#), then:

- (i) if there is only one such *bid*, the *bid* is to be divided into two parts, with:
 - A. the first part being for the marginal quantity of $TSS(BS)$ and being at the $MCP(TSS(BS))$ (an “**AUSA bid**”); and
 - B. the second part being for the remaining quantity and being disregarded,and
- (ii) if there is more than one such *bid* because of the operation of [rule clause 285\(1\)\(d\)](#), each such *bid* is to be divided into two parts, with:
 - A. each first part being for an equal proportion of the entire marginal quantity of $TSS(BS)$ and being at the $MCP(TSS(BS))$ (each an “**AUSA bid**”); and
 - B. each second part being for an equal proportion of the entire remaining quantity and being disregarded.

288. Determine marginal clearing price for adjusted non-user-specific amounts of swing service

- (1) For each *gate point* for each *gas day*, within 5 hours after the end of the *gas day*, [REMCo AEMO](#) must determine in accordance with [rule clause 288\(2\)](#), and publish to *users* and *swing service providers*, the *marginal clearing price* for the total of all *adjusted non-user-specific amounts* of *swing service* (“**MCP(ANUSA)**”), which is expressed in cents, up to three decimal places, per megajoule.
- (2) The $MCP(ANUSA)$ is the price on either the *loan swing service bid stack* or *park swing service bid stack*, as applicable, which intersects with the total of all *users’ adjusted non-user-specific amounts* for the *gate point* for the *gas day* (“**TANUSA**”) calculated under [rule clause 273](#), however [REMCo AEMO](#) may only use the *standing SSPOLR bid* to determine the $MCP(ANUSA)$ where all the other *bids* in the *bid stack* are exhausted because insufficient *swing service* was *bid* into the *bid stack* to meet the **TANUSA**, and then, it may only be used to the extent that such a shortfall exists.
- (3) If, in determining the $MCP(ANUSA)$ under this [rule clause 288](#) [REMCo AEMO](#) is required to use the *standing SSPOLR bid*, then:
 - (a) if the price specified for the *bid* immediately prior to the *standing SSPOLR bid* is higher than the *SSPOLR price* – the price specified for that *bid* applies to the *standing SSPOLR bid* instead of the *SSPOLR price*; and
 - (b) if the price specified for the *bid* immediately prior to the *standing SSPOLR bid* is lower than the *SSPOLR price* – the *SSPOLR price* applies to the *standing SSPOLR bid*.

(4) For the purposes of [rule clause 295](#):

- (a) subject to [rule clause 288\(4\)\(b\)](#), each *bid* in the *bid stack* that is used in setting the *MCP(ANUSA)* is an “**ANUSA bid**”; and
- (b) if the quantity of *TANUSA* is less than the aggregate amount of *swing service* in all the *bids* in the *bid stack* up to and including the *bid* or *bids* at which the *MCP(ANUSA)* is struck under [rule clause 288\(2\)](#), then:
 - (i) if there is only one such *bid*, the *bid* is to be divided into two parts, with:
 - A. the first part being for the marginal quantity of *TANUSA* and being at the *MCP(ANUSA)* (an “**ANUSA bid**”); and
 - B. the second part being for the remaining quantity and being at the *MCP(TSS(BS))* (an “**AUSA bid**”),and
 - (ii) if there is more than one such *bid* because of the operation of [rule clause 285\(1\)\(d\)](#), each such *bid* is to be divided into two parts, with:
 - A. each first part being for an equal proportion of the entire marginal quantity of *TANUSA* and being at the *MCP(ANUSA)* (each an “**ANUSA bid**”); and
 - B. each second part being for an equal proportion of the entire remaining quantity and being at the *MCP(TSS(BS))* (each an “**AUSA bid**”).

288A. TSS(BS) bids

A *bid* that is an *AUSA bid* or an *ANUSA bid* under [rule clause 287](#) or [rule clause 288](#) is also a “**TSS(BS) bid**” for the purposes of these [rules procedures](#).

289. Calculate total swing service cost (all users)

For each *gate point* for each *gas day*, ~~REMC~~[AEMO](#) must determine the “**total swing service cost**” across all *users* as follows:

$$\text{TSSC} = \text{MCP(TSS(BS))} \times \text{TSS(BS)}$$

where:

- TSSC* = the *total swing service cost* across all *users* for the *gate point* for the *gas day*;
- MCP(TSS(BS))* = the *marginal clearing price* for the total amount of *swing service* to be procured through the applicable *bid stack* for the *gas day* determined under [rule clause 287](#); and
- TSS(BS)* = the total amount of *swing service* to be procured through the applicable *bid stack* for the *gate point* for the *gas day* calculated under [rule clause 276](#).

290. Calculate total non-user-specific swing service cost (all users)

For each *gate point* for each *gas day*, REMCoAEMO must determine the “**total non-user-specific swing service cost**” across all *users* as follows:

$$TNUSAC = MCP(ANUSA) \times TANUSA$$

where:

TNUSAC = the *total non-user-specific swing service cost* across all *users* for the *gate point* for the *gas day*;

MCP(ANUSA) = the *marginal clearing price* for the total amount of all *adjusted non-user-specific amounts of swing service* to be procured through the applicable *bid stack* for the *gas day* determined under [rule clause 288](#); and

TANUSA = the total of all *users’ adjusted non-user-specific amounts of swing service* for the *gate point* for the *gas day* calculated under [rule clause 273](#).

291. Calculate total user-specific swing service cost (all users)

For each *gate point* for each *gas day*, REMCoAEMO must determine the “**total user-specific swing service cost**” across all *users* as follows:

$$TUSAC = TSSC - TNUSAC$$

where:

TUSAC = the *total user-specific swing service cost* across all *users* for the *gate point* for the *gas day*;

TSSC = the *total swing service cost* across all *users* for the *gate point* for the *gas day* calculated under [rule clause 289](#); and

TNUSAC = the *total non-user-specific swing service cost* across all *users* for the *gate point* for the *gas day* calculated under [rule clause 290](#).

292. For each user, calculate its user-specific swing service cost

For each *user* for each *gate point* for each *gas day*, REMCoAEMO must determine the *user’s user-specific swing service cost* as follows:

$$USAC = TUSAC \times \frac{AUSA}{TAUSA}$$

where:

USAC = the *user’s user-specific swing service cost* for the *gate point* for the *gas day*;

$TUSAC$ = the *total user-specific swing service cost* across all users for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 291;

$AUSA$ = the *user's adjusted user-specific amount* of *swing service* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 274; and

$TAUSA$ = the total of all *users' adjusted user-specific amounts* of *swing service* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 275.

293. For each user, calculate its non-user-specific swing service cost

For each *user* for each *gate point* for each *gas day*, ~~REMC~~[AEMO](#) must determine the *user's non-user-specific swing service cost* as follows:

$$NUSAC = TNUSAC \times \frac{ANUSA}{TANUSA}$$

where:

$NUSAC$ = the *user's non-user-specific swing service cost* for the *gate point* for the *gas day*;

$TNUSAC$ = the *total non-user-specific swing service cost* across all *users* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 290;

$ANUSA$ = the *user's adjusted non-user-specific amount* of *swing service* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 272; and

$TANUSA$ = the total of all *users' adjusted non-user-specific amounts* of *swing service* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 273.

294. For each user, calculate its total swing service cost

For each *user* for each *gate point* for each *gas day*, ~~REMC~~[AEMO](#) must determine the *user's total swing service cost* as follows:

$$UC = USAC + NUSAC$$

where:

UC = the *user's total swing service cost* for the *gate point* for the *gas day*;

$USAC$ = the *user's user-specific swing service cost* for the *gate point* for the *gas day* calculated under ~~rule~~[clause](#) 292; and

$NUSAC$ = the user's non-user-specific swing service cost for the gate point for the gas day calculated under [rule clause 293](#).

295. Allocation of swing service to swing service providers

- (1) For each user for each swing service provider for each gate point for each gas day, [REMC](#) [AEMO](#) must calculate the "swing service fee" ("FSS") as follows:

$$FSS = \frac{\sum_{SSP} A(TSS(BS) \text{ bids})}{TSS(BS)} \times UC$$

where:

FSS = the swing service fee to be paid by the user to the swing service provider for the gate point for the gas day;

$A(TSS(BS) \text{ bids})$ = the amount of swing service in each of the swing service provider's $TSS(BS)$ bids under [rule clause 288A](#);

$TSS(BS)$ = the total amount of swing service that is procured through the bid stack for the gate point for the gas day under [rule clause 276](#); and

UC = the user's total swing service cost for the gate point for the gas day calculated under [rule clause 294](#).

- (2) For each user for each swing service provider for each gate point for each gas day, [REMC](#) [AEMO](#) must calculate the "swing service amount" ("SSA") as follows:

$$SSA = \left(\frac{\sum_{SSP} A(ANUSA \text{ bids})}{TANUSA} \times ANUSA \right) + \left(\frac{\sum_{SSP} A(AUSA \text{ bids})}{TAUSA} \times AUSA \right)$$

where:

SSA = the swing service amount that the swing service provider provided to the user for the gate point for the gas day, in megajoules;

$A(ANUSA \text{ bids})$ = the amount of swing service in each of the swing service provider's $ANUSA$ bids under [rule clause 288](#);

$TANUSA$ = the total of all users' adjusted non-user-specific amounts of swing service for the gate point for the gas day calculated under [rule clause 273](#);

$ANUSA$ = the user's adjusted non-user-specific amount of swing service for the gate point for the gas day calculated under [rule clause 272](#);

<i>A(AUSA bids)</i>	=	the amount of <i>swing service</i> in each of the <i>swing service provider's AUSA bids</i> under rules clauses 287 and 288;
<i>TAUSA</i>	=	the total of all <i>users' adjusted user-specific amounts of swing service</i> for the <i>gate point</i> for the <i>gas day</i> calculated under rule clause 275; and ;
<i>AUSA</i>	=	the <i>user's adjusted user-specific amount of swing service</i> for the <i>gate point</i> for the <i>gas day</i> calculated under rule clause 274.

296. Swing service contract note

- (1) For each allocation made under ~~rule~~ [clause](#) 295, ~~REMC~~ [AEMO](#) must, within 5 hours after the end of the *gas day*, give a *contract note* to the *user* and the *swing service provider*, specifying:
 - (a) the name of the *swing service provider*;
 - (b) the name of the *user*;
 - (c) the *gate point* to which the allocation relates;
 - (d) the *FSS* to be paid to the *swing service provider* by the *user* determined under ~~rule~~ [clause](#) 295(1);
 - (e) whether the allocated *swing service* is *park swing service* or *loan swing service*;
 - (f) the *SSA* provided to the *user* by the *swing service provider* determined under ~~rule~~ [clause](#) 295(2), in megajoules;
 - (g) the *gas day* in respect of which the allocation under ~~rule~~ [clause](#) 295 was made.

296A. User must pay swing service provider

- (1) The *user* named in a *contract note* must in accordance with the applicable *SSPUD* or *SSPOLRUD* pay to the *swing service provider* named in the *contract note* the *FSS* specified under ~~rule~~ [clause](#) 296(d) in the *contract note*.

297. There is no ~~rule~~ [clause](#) 297

298. Timing of repayment of swing service repayment amounts

- (1) A *user* must ensure that it procures for *repayment* on *gas day D+2* each of the *user's swing service repayment quantities* calculated on *gas day D+1*;

299. Calculation of swing service repayment quantities

- (1) ~~REMC~~ [AEMO](#) must, by 5 hours after the end of *gas day D* determine under ~~rule~~ [clause](#) 299(2), and *notify* the *user* and the *swing service provider* and the *swing service provider of last resort* of, the *swing service repayment quantity* ("**SRQ**") for each *swing service provider* and *swing service provider of last resort* that must *repay swing service* on *gas day D+2* on the *user's* behalf.

(2) For each *user* for each *gate point* for each *gas day*, the *user's SRQ* for a *swing service provider* is determined as follows:

(a) where a *swing service provider* must *repay swing service* on behalf of a *user* as a result of an *applied request* under [rule clause 270](#) –

- (i) the *SRQ* is the amount of *swing service* applied in the *applied request*, or the proportion of the amount applied as specified in the *procurement request* under [rule clause 267\(3\)\(f\)](#); and
- (ii) the *SRQ* must be *repaid* by the *swing service provider* specified in the *procurement request* under [rule clause 267\(3\)\(f\)\(i\)](#) or [267\(3\)\(f\)\(ii\)](#), as applicable;

and

(b) where a *swing service provider* must *repay swing service* on behalf of a *user* as a result of an allocation from a *bid stack* under [rule clause 295](#) –

(i) the *SRQ* is calculated as follows:

$$\text{SRQ} = \text{SSA}$$

where:

SRQ = the *swing service repayment quantity* for the *user* for the *swing service provider*; and

SSA = the *SSA* set out in a *contract note* issued to the *user* and the *swing service provider* under [rule clause 296](#) for the *gate point* for the *sub-network* for the *gas day*;

and

(ii) the *SRQ* must be *repaid* by the *swing service provider* specified in the *contract note* issued under [rule clause 296](#).

300. Notification of swing service data

(1) For each *gas day* for each *gate point*, [REMCo AEMO](#) must within 5 hours after the end of the *gas day* *notify* the *pipeline operator*, *users* and their *related shippers* and the *network operator* of the *swing service* for the *gate point* calculated under [rule clause 256](#).

(2) For each *user* for each *gas day* for each *gate point*, [REMCo AEMO](#) must within 5 hours after the end of the *gas day* *notify* the *user* of:

- (a) the *user's total (pre-procurement) swing service (USS)* for the *gate point* for the *gas day* calculated under [rule clause 262](#);
- (b) the *user's user-specific amount of swing service (USA)* for the *gate point* for the *gas day* calculated under [rule clause 263](#);

- (c) the user's non-user-specific amount of swing service (NUSA) for the gate point for the gas day calculated under [rule clause 266](#);
 - (d) the user's adjusted non-user-specific amount of swing service (ANUSA) for the gate point for the gas day calculated under [rule clause 272](#);
 - (e) the user's adjusted user-specific amount of swing service (AUSA) for the gate point for the gas day calculated under [rule clause 274](#); and
 - (f) the sum across all users of the absolute value of each user's user's estimated total withdrawal for the sub-network for the gas day;
 - (g) the sum of all users' user's deemed withdrawals for each gate point for the gas day;
 - (h) the total of all users' user-specific amounts of swing service for the gate point for the gas day calculated under [rule clause 264](#);
 - (i) the total of all users' adjusted non-user-specific amounts of swing service for the gate point for the gas day calculated under [rule clause 273](#); and
 - (j) the total of all users' adjusted user-specific amounts of swing service for the gate point for the gas day calculated under [rule clause 275](#).
- (3) For each gate point for each gas day, within 5 hours after the end of the gas day, [REMCoAEMO](#) must notify each user and each swing service provider who is a party to an applied request under [rule clause 270](#) for the gas day of the details of the applied request including the quantity allocated in the applied request.
 - (4) For each user for each gate point for each gas day, within 5 hours after the end of the gas day D, [REMCoAEMO](#) must notify the user of the user's swing service repayment quantity for each swing service provider that must repay swing service on gas day D+2 on the user's behalf under [rule clause 298](#).

Part 5.12A – Swing service causation compensation

300A. Swing service causation compensation

- (1) This [rule clause 300A](#) applies to a person, including a participant, pipeline operator or a prescribed person ("**compensating person**"), in respect of a historical gas day *i* in a sub-network if [REMCoAEMO](#) determines that the compensating person must make a "**swing service causation compensation payment**" calculated under this [rule clause 300A](#) to each of the users (excluding the compensating person if the compensating person is a user) ("**recipient users**") in the sub-network on historical gas day *i*.
- (2) [REMCoAEMO](#) may not make a determination under [rule clause 300A\(1\)](#) in respect of a person unless in [REMCoAEMO](#)'s opinion, formed as a reasonable and prudent person, the person acted in a manner which contributed materially to the causation of swing service for the gate points for the sub-network on historical gas day *i*.

- (3) Without limiting [REMCeAEMO](#)'s discretion, in forming its opinion for the purposes of [ruleclause](#) 300A(2), if the person is a *user* for the *sub-network*, [REMCeAEMO](#) may take into account:
- (a) whether the *compensating person*, on the *historical gas day i*, procured the *injection* and *repayment* into the *sub-network* of an amount of gas equal to the *compensating person's* good faith estimate of its likely *user's estimated total withdrawals* for the *historical gas day i*, as required by [ruleclause](#) 178;
 - (b) whether there was a material difference between the *compensating person's user's pipeline nomination amount* and *user's deemed withdrawals* for a *gate point* for the *historical gas day i*;
 - (c) whether the *compensating person*, on the *historical gas day i*, complied with [rulesclauses](#) 181 or 182;
 - (d) whether on the *historical gas day i*, [REMCeAEMO](#) calculated a *corrected recalculated ratio* under [ruleclause](#) 176(4)(c) after the *compensating person* provided a revised *user's pipeline nomination amount* to [REMCeAEMO](#), and the *pipeline operator* notified [REMCeAEMO](#) that it could not accommodate the *corrected recalculated ratio*, contributing the *swing service* on the *historical gas day i*; and
 - (e) any notification to [REMCeAEMO](#):
 - (i) from a *user*, *shipper*, *swing service provider* or *network operator* for the *sub-network* that the *compensating person* may have acted in a manner which contributed materially to the causation of *swing service* on the *historical gas day i*; and
 - (ii) by a *pipeline operator* under [ruleclause](#) 255 regarding the behaviour of the *compensating person* on the *historical gas day i*.
- (4) Without limiting [REMCeAEMO](#)'s discretion, in forming its opinion for the purposes of [ruleclause](#) 300A(2), if the person is not a *user* for the *sub-network*, [REMCeAEMO](#) may take into account any notification to [REMCeAEMO](#) from a *user*, *shipper*, *swing service provider* or *network operator* for the *sub-network* that the *compensating person* may have acted in a manner which contributed materially to the causation of *swing service* on the *historical gas day i*.
- (5) Before making a determination under [ruleclause](#) 300A(1), [REMCeAEMO](#) must request from the *compensating person*, and may request from any other person, information about the circumstances that [REMCeAEMO](#) is considering in deciding whether to make a determination under [ruleclause](#) 300A(1).
- (6) [REMCeAEMO](#) may specify a time for responding to a request under [ruleclause](#) 300A(5), which must be at least 5 full business days from the time of the request.
- (7) A person who receives a request from [REMCeAEMO](#) under [ruleclause](#) 300A(5) must, as soon as practicable and in any event within any time specified under [ruleclause](#) 300A(6), provide [REMCeAEMO](#) with information in reasonable detail about the relevant circumstances.

- (8) ~~REMC~~~~o~~AEMO must not make a determination until the time period in ~~rule~~~~clause~~ 300A(6) has elapsed, but after that may make a determination whether or not a person provides information in accordance with ~~rule~~~~clause~~ 300A(7).
- (9) If ~~REMC~~~~o~~AEMO makes a determination under ~~rule~~~~clause~~ 300A(1) in respect of a *compensating person*, the amount of the *swing service causation compensation payment* for each *recipient user* in the *sub-network* is to be calculated by:
- (a) determining how much of the *swing service* calculated under ~~rule~~~~clause~~ 256 for *historical gas day i* for each *gate point* was caused by the *compensating person* (“**compensable swing quantity**”);
 - (b) determining the total amount of compensation by applying the *marginal clearing price* for the total amount of *swing service* procured through each applicable *bid stack* (“**MCP(TSS(BS))**”) which was calculated for *historical gas day i* under ~~rule~~~~clause~~ 287 to the *compensable swing quantity*;
 - (c) apportioning the total amount of compensation between the *recipient users* on a proportional basis, according to the ratio between:
 - (i) each *recipient user’s total (pre-procurement) swing service amount* under ~~rule~~~~clause~~ 262 for each *gate point* for the *historical gas day i*; and
 - (ii) the sum, across all *recipient users*, of the amount calculated for each *recipient user* under ~~rule~~~~clause~~ 300A(8)(c)(i).
- (10) If ~~REMC~~~~o~~AEMO makes a determination in respect of a person under ~~rule~~~~clause~~ 300A(1), ~~REMC~~~~o~~AEMO must *notify*:
- (a) the *compensating person* of the fact of the determination and of the amount of the *swing service causation compensation payment* for each *recipient user*; and
 - (b) each *recipient user* of its amount of *swing service causation compensation payment* and the identity of the *compensating person*.
- (11) In the absence of manifest error, a *notice* under ~~rule~~~~clause~~ 300A(9) is conclusive proof of its contents where:
- (a) the total amount of compensation determined under ~~rule~~~~clause~~ 300A(8)(b) for the *historical gas day i* is equal to or less than \$25,000; or
 - (b) the sum across two or more consecutive *historical gas days i* of the total amount of compensation determined under ~~rule~~~~clause~~ 300A(8)(b) for each consecutive *historical gas day i* is equal to or less than \$25,000.
- (12) To the extent permitted by *law*, the *swing service compensation payment* specified in a *notice* under ~~rule~~~~clause~~ 300A(9)(b) is recoverable as a debt owed by the *compensating person* to the *recipient user* in accordance with Appendix 10.
- (13) Within 10 *business days* of receiving an invoice in respect of the amount notified under ~~rule~~~~clause~~ 300A(10)(a), the *compensating person* must pay to each *recipient user* the *recipient user’s swing service causation compensation payment*.

Part 5.12B – There is no Part 5.12B

300B. There is no [ruleclause](#) 300B

300C. There is no [ruleclause](#) 300C

300D. There is no [ruleclause](#) 300D

300E There is no [ruleclause](#) 300E

300F There is no [ruleclause](#) 300F

300G There is no [ruleclause](#) 300G

Part 5.13 – Data failure

301. Data failure

- (1) If [REMCeAEMO](#) does not receive the relevant data for an *interval metered delivery point* as required under [ruleclause](#) 158 to calculate the *net system load* for a *sub-network* under [ruleclause](#) 223, [REMCeAEMO](#) must estimate the *user's* withdrawals at the *interval metered delivery point* using the *like day substitution methodology*.
- (2) If [REMCeAEMO](#) does not receive *gate point metering data* from a *network operator* for a *gate point* for a *gas day* by the time specified in [ruleclause](#) 152(1)(b), then [REMCeAEMO](#) must estimate the *gate point metering data* using the *nomination estimation methodology*.
- (3) Whenever [REMCeAEMO](#) is required under this [ruleclause](#) 301 to estimate a value, then [REMCeAEMO](#) may use the estimated value (in place of the value which was not received) wherever necessary under these [rulesprocedures](#).

301A. Manifest data errors and recalculation of gas day results

{Note: If [REMCeAEMO](#) or any other market participant becomes aware of a manifest error the party may advise the *network operator* of the error.}

- (1) If on *gas day D* the *network operator* becomes aware of a manifest error in the data it has provided to [REMCeAEMO](#) on *gas day D* under either [ruleclause](#) 152 or 158 in respect of *gas day D – 1* it may notify [REMCeAEMO](#) that it reasonably believes there is a manifest error in the data it has provided. Such notification must include at least the following:
 - (a) the [ruleclause](#) under which the data containing the manifest error was provided to [REMCeAEMO](#); and
 - (b) if the manifest data error relates to data provided to [REMCeAEMO](#) under [ruleclause](#) 152, the *gate point* for which the *gate point metering data* is erroneous; or
 - (c) if the manifest data error relates to data provided to [REMCeAEMO](#) under [ruleclause](#) 158, the *MIRN* for which the *interval meter data* is erroneous; and

(d) the relevant *gas day*.

(2) By submitting a notification to [REMCeAEMO](#) under [rule clause](#) 301A(1) the *network operator* warrants that the notification is not fraudulent, frivolous or vexatious.

(3) On receipt of a *notice* under [rule clause](#) 301A(2), [REMCeAEMO](#) must:

- (a) forthwith *notify all participants, shippers, swing service providers and pipeline operators* ~~in the relevant jurisdiction~~ that the allocation, reconciliation and swing results produced by [REMCeAEMO](#) under Parts 5.4 to 5.12 (inclusive) of the ~~rules~~ [procedures](#) for the relevant *sub-network* and *gas day* is suspected of containing manifest errors; and
- (b) forthwith stop the operation of the [REMCeAEMO](#) Information System components that produce the allocation, reconciliation and swing results ~~for the relevant jurisdiction~~; and

[REMCeAEMO](#) will not be required to comply with the timing requirements for the provision of *notices* and publication of information under Parts 5.6, 5.7, 5.8, 5.9 and 5.12 in respect of the *affected gas day* and each following *gas day* up to but not including the *gas day* on which [REMCeAEMO](#) has complied with its obligation under [rule clause](#) 301A(5), 301A(6) or 301A(7) (whichever is applicable).

(4) Following receipt of a *notice* from [REMCeAEMO](#) under [rule clause](#) 301A(3):

(a) if the manifest data error relates to *gate point metering data* provided under [rule clause](#) 152, the *pipeline operator* for the *gate point* to which the *notice* relates must use its reasonable endeavours to determine if the *gate point metering data* was erroneous and:

- (i) if the *gate point metering data* was not erroneous notify [REMCeAEMO](#) as soon as reasonably practicable that the *gate point metering data* was correct; or
- (ii) obtain amended *physical gate point metering data* and provide the amended *physical gate point metering data* to the *network operator* within 51.5 hours of the start of the *affected gas day*. For the avoidance of doubt, any amended *physical gate point metering data* may be revised estimated values;

or

(b) if the manifest data error relates to *interval meter data* provided under [rule clause](#) 158, the *network operator* for the *interval meter* to which the *notice* relates must use its reasonable endeavours to determine if the *interval metering data* was erroneous and:

- (iii) if the *interval metering data* was not erroneous, notify [REMCeAEMO](#) as soon as reasonably practicable that the *interval metering data* was correct; or

- (iv) obtain amended *interval metering data* and provide the amended *interval metering data* to ~~REMC~~~~o~~~~AEMO~~ within 51.5 hours of the start of the *affected gas day*. For the avoidance of doubt, any amended *interval metering data* may be revised estimated values.

- (5) If the *pipeline operator* notifies ~~REMC~~~~o~~~~AEMO~~ under ~~rule~~~~clause~~ 301A(4)(a)(i) or the *network operator* notifies ~~REMC~~~~o~~~~AEMO~~ under ~~rule~~~~clause~~ 301A(4)(b)(i) that the data for *gas day D – 1* was not erroneous, then ~~REMC~~~~o~~~~AEMO~~ must notify all *participants*, *shippers*, *swing service providers* and *pipeline operators* ~~in the relevant jurisdiction~~ that the relevant party has confirmed that the relevant data was correct and, therefore, that the initial results produced by ~~REMC~~~~o~~~~AEMO~~ in respect of *gas day D – 1* and each subsequent *gas day* for which results have been published by ~~REMC~~~~o~~~~AEMO~~ remain valid.
- (6) If the *network operator* does not provide amended *interval meter data* or amended *gate point metering data* within 51.5 hours of the start of the *affected gas day*, ~~REMC~~~~o~~~~AEMO~~ must notify all *participants*, *shippers*, *swing service providers* and *pipeline operators* ~~in the relevant jurisdiction~~ that it did not receive any updated *interval metering data* and, therefore, that the initial results published by ~~REMC~~~~o~~~~AEMO~~ in respect of *gas day D – 1* and each subsequent *gas day* for which results have been published by ~~REMC~~~~o~~~~AEMO~~ remain valid.
- (7) If the *network operator* provides ~~REMC~~~~o~~~~AEMO~~ with amended *gate point metering data* or *interval metering data* for *gas day D – 1* within 51.5 hours of the start of the *affected gas day* ~~REMC~~~~o~~~~AEMO~~ must:
 - (a) As soon as practicable recalculate the allocation, reconciliation and swing results for *gas day D – 1* and any other *gas day* subsequent to *gas day D – 1* and prior to the *gas day* on which the relevant amended data for *gas day D – 1* was provided by the *network operator*; and
 - (a) publish the recalculated results to the relevant *participants*, *shippers*, *swing service providers* and *pipeline operators* according to Parts 5.4 to 5.12 (inclusive) of the ~~rules~~~~procedures~~.

Nothing in this ~~rule~~~~clause~~ 301A relieves a *participant*, *shipper*, *swing service provider* or *pipeline operator* from its obligations under Chapter 5.

301B. There is no ~~rule~~~~clause~~ 301B

301C. There is no ~~rule~~~~clause~~ 301C

Part 5.14 – Miscellaneous provisions

302. Multi shipper allocation agreement

- (1) This ~~rule~~~~clause~~ applies to a *gate point* if a *transmission contract* or *Access Arrangement* requires an agreement between all *shippers* who receive gas, and all *swing service providers* who receive gas park or loan services, from the *pipeline operator* at the *gate point* (sometimes known as a “**multi-shipper allocation agreement**”), regarding how actual deliveries of gas at the *gate point* are apportioned between *shippers* and *swing service providers*.

- (2) The allocations which will apply as the *multi-shipper allocation agreement* for the *gate point* for each *gas day* are as follows:
- (a) each *shipper* is deemed to have taken delivery of its *shipper's hourly gate point apportionment* for each hour in the *gas day* for the *pipeline* which interconnects to the *gate point*, calculated under [ruleclause 252\(2\)](#);
 - (b) each *shipper* is deemed to have taken delivery of its *shippers deemed injection* for the *gas day* for the *pipeline* which interconnects to the *gate point*, calculated under [ruleclause 246](#);
 - (c) each *swing service provider* is deemed to have received an amount of park or loan service from the *pipeline operator* at the *gate point*, as specified in:
 - (i) an *applied request* under [ruleclause 270](#); or
 - (ii) a *contract note* under [ruleclause 296](#).
- (3) For each *pipeline* for each *sub-network* for each *gas day*, within 5 hours after the end of the *gas day*, [REMCeAEMO](#) must:
- (a) provide to the *pipeline operator* a “**multi-shipper allocation report**” setting out the information referred to in [ruleclause 302\(2\)](#) for each *shipper* and *swing service provider* on the *pipeline*; and
 - (b) provide to each *shipper* and *swing service provider* on the *pipeline*, a *shipper's “multi-shipper allocation report”* setting out the information referred to in [ruleclause 302\(2\)](#) for the *shipper* or *swing service provider*.
- (4) To avoid doubt, if [ruleclause 178](#) requires a *user* to procure the *injection* or *repayment* into the *sub-network* of a negative amount of gas on a *gas day*, that negative amount is to be included in the calculations for the *multi-shipper allocation agreement* and may result in a *shipper* having a negative *deemed injection* for the *gas day*.

303. There is no [ruleclause 303](#)

304. Recovery from [REMCeAEMO](#) Failure

- (1) If for any period of time on any day that is not a *business day*, [REMCeAEMO](#) cannot perform its obligations under this Chapter 5 because of failure of the [REMCeAEMO information system](#) (each a “**system down time**”), then:
- (a) As soon as practicable after the *system down time* occurs [REMCeAEMO](#) must rectify the system failure.
 - (b) On the day the system failure is rectified [REMCeAEMO](#) must, as soon as practicable, provide the information it is required to provide under this Chapter 5 for each *gas day* during the *system down time* up to and including the *gas day* on which the information is provided. The information must be provided in chronological order.

- (2) If the system failure only affects the input of information into *REMCeAEMO*, then *REMCeAEMO* will perform for each gas day during the system down time the calculations described in this Chapter 5 using estimates for each piece of data that it does not receive under these *rules/procedures*. Any discrepancy between the estimates used by *REMCeAEMO* and the actual data will be treated as a reconciliation under Part 5.7.

305. There is no *rule* clause 305

306. Maintenance and accessibility of *REMCeAEMO* data

REMCeAEMO must maintain all data collected, received, generated or sent to any person by *REMCeAEMO* under this Chapter 5 and any data that is the result of *REMCeAEMO*'s latest final calculations for a gas day:

- (a) in a format that identifies:
 - (i) the time and date the data was collected, received, generated or sent by *REMCeAEMO*; and
 - (ii) the person from whom *REMCeAEMO* collected or received the data, or to whom *REMCeAEMO* sent the data, or if *REMCeAEMO* generated the data, *REMCeAEMO* is identified as having generated the data, and
- (b) for at least 2 years, in a format that is accessible within 2 business days to enable the repeated performance of calculations *REMCeAEMO* is responsible for performing under this Chapter 5 for any of and up to the previous 425 gas days; and
 - (i) at least another 5 years after that, in a format which is accessible within 5 business days.

307. There is no *rule* clause 307

308. *There is no clause 308* Review of Chapter 5

~~(1) Unless otherwise unanimously agreed by all participants and REMCo, REMCo must review the operation of this Chapter 5 of the rules, to ensure that:~~

- ~~(a) the REMCo information system is operating in accordance with this Chapter 5; and~~
- ~~(b) Chapter 5 is not having an unduly prejudicial impact on REMCo or any participant, pipeline operator, prescribed person or interested person.~~

~~(2) A review under rule 308(1) must be commenced as soon as practicable after the expiry of 6 months, 18 months and 3 years after the go-live date, and must be completed as quickly as practicable and in any event within 3 months.~~

~~Prior to commencing a review under rule 308(1), REMCo must as a reasonable and prudent person, and in consultation with the persons required to comply with this Chapter 5, determine the terms of reference, scope of work and work programme for the review.~~

Chapter 6 – Compliance and Interpretation

Part 6.1 – The independent compliance panel

309. REMCoAEMO to create compliance panel

- (1) REMCoAEMO must establish a *compliance panel* under these ~~rules~~procedures. ~~by the go-live date.~~
- (2) Within 3 months after a *compliance panel* member retires, is removed or otherwise vacates the office, REMCoAEMO must appoint a replacement member.

310. Composition of compliance panel

The *compliance panel* must comprise at least 3 members meeting, in REMCoAEMO's opinion, the following criteria:

- (a) a chairperson with a legal background; and
- (b) one member with financial experience; and
- (c) one member with technical and gas industry experience, preferably in WA.

311. Compliance panel member's conflict of interest

- (1) In this ~~rule~~clause 311 the term “**conflict of interest**” includes, but is not limited to:
 - (a) the holding of any office; or
 - (b) the entering into, or giving effect to, any contract, arrangement, understanding or relationship,

by a *compliance panel* member whereby, directly or indirectly, duties or interests are or might be created for the *compliance panel* member which conflict, or might reasonably be expected to conflict, with any one or more of the following:
 - (c) the *compliance panel* member's duties in making a determination under this Chapter 6;
 - (d) the interests of REMCoAEMO; or
 - (e) the interests of one or more *participants, pipeline operator or prescribed person*.
- (2) REMCoAEMO must not appoint a person as a *compliance panel* member, if REMCoAEMO becomes aware of an actual *conflict of interest* in the *compliance panel member* that might reasonably be expected to materially adversely affect the *compliance panel* member's independence and impartiality or the performance of his or her duties.
- (3) REMCoAEMO must ensure that each *compliance panel* member:

- (a) at all times — provides full disclosure of all actual or potential *conflicts of interest* to ~~REMC~~CoAEMO; and
 - (b) at all times — has in operation effective ~~procedures~~procedures to detect any actual or potential *conflict of interest* which arises during the member's tenure; and
 - (c) as soon as practicable notifies ~~REMC~~CoAEMO of any actual or potential *conflict of interest* which arises during the member's tenure, and of any non-compliance with this ~~rule~~clause 311.
- (4) Within 20 *business days* after notification of a *conflict of interest* under ~~rule~~clause 311(3)(a) or ~~rule~~clause 311(3)(c), ~~REMC~~CoAEMO must consider the nature and extent of the *conflict of interest* and may, having regard to whether the *conflict of interest* might reasonably be expected to materially adversely affect the *compliance panel* member's independence and impartiality or the performance of his or her duties:
- (a) permit the member to continue as a member of the *compliance panel*; or
 - (b) terminate the member's tenure by *notice* to the member, with effect from the date on which the *conflict of interest* arose; or
 - (c) disqualify the member from participating in a *compliance panel proceeding* in respect of which the *conflict of interest* arises.

312. Tenure of compliance panel members

- (1) ~~REMC~~CoAEMO may appoint each *compliance panel* member for a period of up to 3 years.
- (2) ~~REMC~~CoAEMO may re-appoint a *compliance panel* member whose tenure has expired or been terminated.

313. Vacation of compliance panel membership

A person immediately ceases to be a member of the *compliance panel* if the person:

- (a) becomes of unsound mind or a person liable, or a person whose assets are liable, to any control or administration under any *law* relating to physical or mental health; or
- (b) resigns by *notice* to ~~REMC~~CoAEMO; or
- (c) dies.

314. Removal of a compliance panel member

- (1) ~~REMC~~CoAEMO may remove a *compliance panel* member in the following circumstances:
 - (a) under ~~rule~~clause 311(4)(b);

- (b) if the member becomes bankrupt, is convicted of fraud or on indictment of an offence other than fraud or is otherwise ineligible to be appointed as a director of a corporation under the Corporations Act [2001](#); or
 - (c) if [REMCeAEMO](#) considers that the member has failed to adequately discharge the duties of a *compliance panel* member; or
 - (d) if [REMCeAEMO](#) considers that the *compliance panel* member is otherwise unfit to hold the position of *compliance panel* member.
- (2) [REMCeAEMO](#) may seek a recommendation from the *compliance panel* chairperson for the purposes of [rules](#)[clauses](#) 314(1)(c) and 314(1)(d)
 - (3) [REMCeAEMO](#) must forthwith *notify* a person in writing of his or her removal under [rule](#)[clause](#) 314(1).

315. Chair vacancies

If the position of *compliance panel* chairperson is vacant, all *compliance panel proceedings* are suspended until:

- (a) [REMCeAEMO](#) appoints a *compliance panel* chairperson under [rule](#)[clause](#) 309; or
- (b) such time as [REMCeAEMO](#) determines.

{Note: *Compliance panel proceedings* are suspended if there is no chairperson with a legal background because of the nature of *compliance panel proceedings*.}

316. Interim members of compliance panel

If at any time the *compliance panel* does not comprise sufficient members necessary to meet the quorum requirements set out in [rule](#)[clause](#) 317, [REMCeAEMO](#) may appoint an interim *compliance member* including an interim chairperson, qualified in accordance with [rule](#)[clause](#) 310, to hold office until such time as necessary to ensure that the *compliance panel* is properly constituted under Part 6.1 of the [rules](#)[procedures](#).

317. Quorum

A quorum of 3 members, including the *compliance panel* chairperson, is required at any time that the *compliance panel* is convened to perform its functions under these [rules](#)[procedures](#).

318. Administrative assistance

[REMCeAEMO](#) must provide all reasonable administrative assistance to the *compliance panel*, as requested by the *compliance panel* chairperson.

319. Minutes

- (1) The *compliance panel* chairperson must ensure that each *compliance panel proceeding* is minuted.

- (2) Within 5 *business days* after a *compliance panel proceeding*, the *compliance panel* chairperson must circulate the draft minutes of the *proceeding* to the other members of the *compliance panel* for consideration and approval.
- (3) ~~REMC~~CoAEMO must ensure that the minutes of a *compliance panel proceeding* are made available to, and accessible by each *compliance panel* member for 7 years after the date of the *proceeding*.

320. Remuneration of compliance panel members

- (1) ~~REMC~~CoAEMO must determine from time to time the hourly or daily rate or rates of remuneration payable by ~~REMC~~CoAEMO to a *compliance panel* member.
- (2) ~~REMC~~CoAEMO must pay each *compliance panel* member:
 - (a) the amount of the remuneration determined under ~~rule~~clause 320(1); and
 - (b) his or her associated travelling and other expenses reasonably incurred in connection with attendance at *compliance panel proceedings* and otherwise in the execution of his or her duties as a *compliance panel* member, provided that ~~REMC~~CoAEMO has given the *compliance panel* member prior written approval to incur the expense.

321. Limitation of liability for compliance panel members

- (1) To the extent permitted by *law*, a *compliance panel* member is not liable for any loss or damage suffered or incurred by any person as a consequence of any act or omission of the *compliance panel* unless the *compliance panel*, or its members, as the case may be:
 - (a) do not act in good faith under this Chapter 6; or
 - (b) act fraudulently.
- (2) Notwithstanding ~~rule~~clause 321(1), if a *compliance panel* member is liable to pay any amount for loss or damage suffered or incurred by a person as a consequence of any act or omission of the *compliance panel*, ~~REMC~~CoAEMO must indemnify the *compliance panel* member:
 - (a) for the full amount of loss or damage; and
 - (b) for any costs incurred by the *compliance panel* member in defending related proceedings,unless the liability arose out of the member's:
 - (c) conduct involving a lack of good faith; or
 - (d) fraud.

Part 6.2 – Functions and powers of compliance panel

322. Independence of compliance panel

- (1) Except as provided in [rule clause 322\(2\)](#), the *compliance panel* is independent of direction or control by [REMCeAEMO](#) or any *participant*, *pipeline operator* or *prescribed person* in the performance of its functions.
- (2) [REMCeAEMO](#) may give written directions to the *compliance panel* chairperson to the extent allowed by [rule clause 322\(3\)](#), and the *compliance panel* chairperson must give effect to any such direction.
- (3) Directions under [rule clause 322\(2\)](#) —
 - (a) may relate only to general policies to be followed by the *compliance panel* in matters of administration, including financial administration; and
 - (b) cannot constrain the *compliance panel* with respect to the performance of any function referred to in [rule clause 323](#).
- (4) If a direction is given under [rule clause 322\(2\)](#), then [REMCeAEMO](#) must give a copy of the direction to each *participant*, *pipeline operator* or *prescribed person*, and to any other *interested person* who requests a copy.

323. Functions of the compliance panel

The functions of the *compliance panel* are to hear and make determinations on matters referred to it by [REMCeAEMO](#) or a *participant* regarding:

- (a) alleged breaches of the [rules procedures](#); or
- (b) the interpretation of the [rules procedures](#); or
- (c) any other matter that can be referred to the *compliance panel* under these [rules procedures](#).

323A. Annual Meeting

(1) The *compliance panel* must meet:

- (a) at least once in each calendar year; and
- (b) more frequently if *AEMO* or a *Scheme participant* informs the Chair of the *compliance panel* in writing that they wish to bring a matter before the *compliance panel* for discussion.

(2) The meetings of the *compliance panel* are to:

- (a) be informed by *AEMO* of any *high-impact procedure changes*;
- (b) review, amend or confirm any compliance guidelines adopted under clause 338;
and

(c) review, amend or confirm any delegations of authority granted under clause 343(3).

324. Powers of compliance panel

(1) The *compliance panel* has the power to:

- (a) request a *participant, pipeline operator, prescribed person* or ~~REMC~~AEMO to provide information relevant to a matter being considered by the *compliance panel*, and the *participant, pipeline operator, prescribed person* or ~~REMC~~AEMO (as the case may be) must comply with the request to the extent permitted by law; and
- (b) make determinations upon matters referred under ~~rule~~clause 329(1)(a)(iii), ~~rule~~clause 329(1)(b), 329(1)(d) or ~~rule~~clause 331; and
- (c) make orders in accordance with ~~rule~~clause 343; and
- (d) in order to assist it in fulfilling its functions under these ~~rules~~procedures:
 - (i) appoint a person performing the functions of ~~REMC~~AEMO, any officer or employee of that person or such other person as the *compliance panel* thinks fit, to act as agent of the *compliance panel* in carrying out investigations or other functions; or
 - (ii) employ, or otherwise seek advice or assistance from an external investigator, auditor, accountant, lawyer or other expert, or such other person as the *compliance panel* thinks fit,

provided that, in appointing a person under this ~~rule~~clause 324, the *compliance panel* must ensure that the *person* does not have a *conflict of interest* under ~~rule~~clause 311 in performing the relevant role.

(2) ~~REMC~~AEMO must pay any costs that the *compliance panel* incurs under ~~rule~~clause 324(1)(d), provided that ~~REMC~~AEMO has given the *compliance panel* prior written approval to incur the cost.

Part 6.3 – Matters referred to ~~REMC~~AEMO

(Note: The purpose of this Part 6.3 which imposes a requirement that matters be referred to ~~REMC~~AEMO before being referred to the *compliance panel* or the *Economic Regulation Authority*, is:

- (a) to provide a speedy mechanism to resolve minor matters without activating the *compliance panel* or requiring an investigation by the *Economic Regulation Authority*; and
- (b) to impose a filter which discourages the referral of vexatious or frivolous *claims* to the *compliance panel* or the *Economic Regulation Authority*.)

325. Matters referred to ~~REMC~~AEMO

(1) If a *participant, pipeline operator*, ~~or~~ *prescribed person*, or AEMO:

- (a) reasonably believes that another *participant, pipeline operator, prescribed person*, or ~~REMC~~AEMO has breached the ~~rules~~procedures; or

(b) requires an interpretation of the proper meaning of a ~~rule~~procedure,

then the *participant, pipeline operator, ~~or~~ prescribed person, or AEMO* may at any time give ~~REMC~~AEMO a notice specifying:

(c) the GBO identification of the person referring the matter to ~~REMC~~AEMO; and

(d) the identity of any person of which it is aware, that is involved with or affected by the referred matter; and

(e) if the matter relates to an alleged breach of the ~~rules~~procedures by a *participant pipeline operator or prescribed person*:

(i) the GBO identification of the *participant pipeline operator or prescribed person* that is alleged to have breached the ~~rules~~procedures; and

(ii) the identity of any other person that is involved with or affected by the alleged breach of the ~~rules~~procedures; and

(iii) the details of the alleged breach of the ~~rules~~procedures; or

(f) if the matter relates to an alleged breach of the ~~rules~~procedures by ~~REMC~~AEMO:

(i) the details of the alleged breach of the ~~rules~~procedures by ~~REMC~~AEMO; and

(ii) the identity of any other person that is involved with or affected by the alleged breach of the ~~rules~~procedures; or

(g) if the matter relates to an interpretation of the ~~rules~~procedures:

(i) the ~~rule~~procedure that requires interpretation and the reason why; and

(ii) the circumstances in which the interpretation is required.

(2) Every notice of an alleged breach of the ~~rules~~procedures must be given within 30 *business days* of the date that the *participant, pipeline operator or prescribed person* alleging the ~~rule~~procedure breach became aware, or ought to have become aware, that the breach occurred.

(3) A notice requesting an interpretation of a ~~rule~~procedure may be given at any time.

325A. Suspending the process

(1) If a person gives a notice under ~~rule~~clause 325(3) (“**interpretation notice**”) which involves interpretation of a ~~rule~~procedure that is, or becomes, the subject of a notice of alleged breach under ~~rule~~clause 325(2) (“**breach notice**”), then time does not run in respect of any deadline under this Chapter that relates to the breach notice for a period (“**suspension period**”) determined in accordance with ~~rule~~clause 325A(2).

- (2) The suspension period starts on the giving of the interpretation notice and ends at the time at which the compliance panel's decision takes effect under clause 341(5)(b). ~~either:~~

- ~~(a) — REMCo rejects the matter under rule 329(1)(b)(i); or~~
~~(b) — REMCo makes a determination under rule 329(1)(b)(ii); or~~
~~(c) — the compliance panel's decision takes effect under rule 341(5)(b).~~

{Note: For example, if a breach notice has not been given, the 30 day period under clause 325(2) is suspended while the interpretation notice is being dealt with – i.e. for the duration of the suspension period. The following are examples of how this rule 325A can operate:

- If a breach notice has not been given, the 30 day period under rule 325(2) is suspended while the interpretation notice is being dealt with (ie. for the duration of the suspension period).
- If a breach notice has been given, and a determination has been made under rules 329(2), the 40 day period in rule 331(1) is suspended while the interpretation notice is being dealt with.

- (3) RuleClause 325A(1) does not apply in respect of a deadline that had already expired when the interpretation notice was given.

326. Withdrawal of referral

- (1) A *participant, pipeline operator, or prescribed person* that refers a matter to REMCoAEMO may at any time prior to REMCoAEMO making a decision under ruleclause 329 withdraw the referral by *notice* to REMCoAEMO.
- (2) REMCoAEMO may require the *participant, pipeline operator, or prescribed person* to reimburse REMCoAEMO for the reasonable costs incurred by REMCoAEMO in connection with a referral to REMCoAEMO, up to the time it is withdrawn.

327. REMCoAEMO to give notice to participants

If REMCoAEMO:

- (a) receives a notice under ruleclause 325(1); or
- (b) requires an interpretation of the proper meaning of a ruleprocedure

REMCoAEMO must before making a decision under ruleclause 329(1) give a *notice* to each *participant, pipeline operator, or prescribed person* or REMCoAEMO affected specifying:

- (c) if the matter relates to an alleged breach of the rulesprocedures by a *participant, pipeline operator, prescribed person* or REMCoAEMO:
- (i) the GBO identification of the *participant, pipeline operator, prescribed person* or REMCoAEMO that is alleged to have breached the rulesprocedures; and
- (ii) the identity of each person that is involved with or affected by the alleged breach of the rulesprocedures; and

- (iii) the details of the alleged breach of the ~~rules~~ procedures; or
- (d) if the matter relates to an interpretation of the ~~rules~~ procedures:
 - (i) the ~~rule~~ procedure that requires interpretation and the reason why; and
 - (ii) the circumstances in which, the interpretation is required.

328. ~~REMC~~Co to determine ~~procedures~~ There is no clause 328

- ~~(1) Subject to these rules, REMCo may determine its own procedures procedures for hearing and determining an alleged breach of the rules or an interpretation of the rules.~~
- ~~(2) A participant, pipeline operator or prescribed person must make reasonable endeavours to comply with the requirements of any ~~procedures~~ procedures established by REMCo under rule 328(1).~~

328A. ~~REMC~~Co AEMO may investigate alleged breaches

- (1) Before making a determination under ~~rule~~ clause 329 in relation to an alleged breach referred to ~~REMC~~Co AEMO under ~~rule~~ clause 325, ~~REMC~~Co AEMO may request from any participant, pipeline operator or prescribed person information about the circumstances of the alleged breach.
- (2) ~~REMC~~Co AEMO may specify a time for responding to a request under ~~rule~~ clause 328A(1), which must be at least 5 full business days from the time of the request.
- (3) A participant, pipeline operator or prescribed person who receives a request from ~~REMC~~Co AEMO under ~~rule~~ clause 328A(1) must, as soon as practicable and in any event within any time specified under ~~rule~~ clause 328A(2), provide ~~REMC~~Co AEMO with information in reasonable detail about the relevant circumstances.
- (4) ~~REMC~~Co AEMO must not make a determination until the time period in ~~rule~~ clause 328A(2) has elapsed, but after that may make a determination whether or not a participant, pipeline operator, or prescribed person provides information in accordance with ~~rule~~ clause 328A(1).
- (5) ~~REMC~~Co AEMO may at any time extend the specified time for responding to a request under ~~rule~~ clause 328A(2)

329. Determinations which may be made

- (1) After considering an alleged ~~rule~~ breach of the procedures or ~~rule~~ procedure interpretation ~~AEMO~~ REMCCo may:
 - (a) must, if the matter relates to an alleged ~~rule~~ breach of the procedures by a participant or ~~REMC~~Co AEMO, and AEMO has not been delegated authority to make a determination on materiality under clause 343(3), refer the matter to the compliance panel and provide the compliance panel with AEMO's view on whether the breach was material.;

- (i) ~~if REMCo determines that the matter was not material, resolve not to take any further action in relation to the matter; or~~
- (ii) ~~if REMCo determines that the matter was material, refer the matter to the compliance panel; or~~
- (b) may if the matter relates to an alleged breach of the procedures by a participant or AEMO, and AEMO has been delegated authority to make a determination on materiality under clause 343 ~~rule interpretation~~:
 - (i) ~~reject the matter~~ if AEMO determines that the matter was not material, either resolve not to take any further action in relation to the matter, or refer the matter to the compliance panel; or
 - (ii) if AEMO determines that the matter was material, refer the matter to the compliance panel ~~make a determination on the matter; or~~
 - (iii) ~~refer the matter to the compliance panel.~~
- (c) may, if the matter relates to an alleged ~~rule~~ breach of the procedures by a pipeline operator, or prescribed person, then
 - (i) if ~~REMCo~~AEMO determines that the matter was not material, resolve not to take any further action in relation to the matter, or refer the matter to the approving body; or
 - (ii) if ~~REMCo~~AEMO determines that the matter was material, refer the matter to the approving body ~~Economic Regulation Authority~~.

{Note: In determining whether an alleged ~~rule~~ breach of the procedures by a participant, pipeline operator, ~~or prescribed person~~, or AEMO is material ~~REMCo~~AEMO will have regard to the following:

 - (i) Whether the alleged breach had a material impact on the operation of the Market.
 - (ii) Whether the alleged breach has resulted in any costs being borne by ~~REMCo~~AEMO (and therefore the Market as a whole).
 - (iii) Whether or not the alleged ~~rule~~ breach of the procedures appears to have arisen as a result of problems with the design/operation of the ~~rules~~procedures, and that the participant, pipeline operator, or prescribed person was still acting in a manner consistent with the guiding principles of ~~REMCo~~AEMO.
 - (iv) Whether the alleged ~~rule~~procedure breach was an isolated event, or indicates a systemic problem with compliance.
 - (v) Whether the alleged ~~rule~~procedure breach appears to have been made intentionally or maliciously.
 - (vi) Whether remedial action was taken by the participant, pipeline operator, or prescribed person following discovery of the breach.
 - (vii) Whether the alleged ~~rule~~procedure breach has a potential anti-competitive effect.
 - (viii) Any other matters considered relevant by ~~REMCo~~AEMO.}
- (d) must, if the matter relates to an alleged interpretation of the procedures, refer the matter to the compliance panel with AEMO's preliminary view on the interpretation.

- (2) ~~REMC~~oAEMO must make its determination under this ~~rule~~clause 329 expeditiously in a fair and reasonable manner.
- (3) ~~REMC~~oAEMO must:
- (a) for the first 12 months after the date that a change to the ~~rules~~procedures comes into force, have regard to the fact that the ~~rules~~procedures affected by the change are a new governing regime for *participants, pipeline operator, or prescribed person*;
 - (b) for the first 6 months after a *person* becomes a *participant, pipeline operator or prescribed person*, have regard to the fact that the ~~rules~~procedures are a new governing regime for the new *participant, pipeline operator, or prescribed person*; and
 - (c) if there is an *in-progress* ~~rule~~procedure change that affects the ~~rule~~procedure that is alleged to have been breached, consider whether the conduct that is the subject of the alleged ~~rule~~procedure breach would not have been a breach if the *in-progress* ~~rule~~procedure change had been in effect at the time the breach was alleged to have occurred, and have regard to this in making its decision under ~~rule~~clause 329(1).

330. Notification of determinations

- (1) Within 5 *business days* after a determination under ~~rule~~clause 329(1)(a)(i) or ~~rule~~clause 329(1)(b)(i), ~~REMC~~oAEMO must give *notice* of the determination and reasons for the determination to the *participant, pipeline operator, or prescribed person* that referred the matter under ~~rule~~clause 325.
- (2) Within 5 *business days* after a determination under ~~rule~~clause 329(1)(a)(ii) or ~~rule~~clause 329(1)(b)(ii) or ~~rule~~clause 329(1)(b)(iii), ~~REMC~~oAEMO must, subject to ~~rule~~clause 330(3), give *notice* of the determination and reasons for the determination to all *participants, pipeline operators, and prescribed persons*.
- (3) ~~REMC~~oAEMO must not include any *confidential information* in the *notice* of the determination and reasons for the determination under ~~rule~~clause 330(2) and may censor documents it publishes to *participants, pipeline operators, and prescribed persons*.

331. Appeal to the compliance panel

- (1) Within 40 *business days* after notification of a determination by ~~REMC~~oAEMO under ~~rule~~clause 139(3)(b), ~~rule~~clause 329(1)(a)(i) or ~~rule~~clause 329(1)(b)(i), a *participant, pipeline operator, or prescribed person* may appeal ~~REMC~~oAEMO's determination to the *compliance panel* by giving *notice* to ~~REMC~~oAEMO.

{Note: The *compliance panel* may make an order that the *participant* must pay the *compliance panel's* costs under ~~rule~~clause 343(1)(d) or other parties' costs under ~~rule~~clause 343(1)(e) as part of any determination made by the *compliance panel*.}

{While *pipeline operators* and *prescribed persons* are not subject to decisions by ~~REMC~~oAEMO, they may still appeal an ~~REMC~~oAEMO decision to the *compliance panel* on matter of non-compliance by a *participant*.}

- (2) Within 5 *business days* after notification under [rule clause 331\(1\)](#), ~~REMC~~[AEMO](#) must refer the matter to the *compliance panel*.

Part 6.4 – Referral of matters to compliance panel

332. Referral of matters to compliance panel

A matter may only be referred to the *compliance panel* by:

- (a) ~~REMC~~[AEMO](#) under [rule clause 329\(1\)\(a\)\(ii\)](#), or [rule clause 329\(1\)\(b\)\(iii\) 1\(1\)\(a\)\(i\) 4\(1\)\(a\)](#), [clause 329\(1\)\(b\)\(ii\)](#) or [clause 329\(1\)\(d\)](#); or
- (b) by way of appeal by a *participant, pipeline operator, or prescribed person* under [rule clause 139\(5\)](#) or [rule clause 331\(1\)](#).

333. Requirements for referral

A *referral* must be in writing and must specify at least the following information:

- (a) the identity of the person lodging the *referral* with the *compliance panel*; and
- (b) ~~if the referral is made under rule 329(1)(a)(ii), or rule 329(1)(b)(iii) — such~~ such information as ~~REMC~~[AEMO](#) has regarding the matter, [including any preliminary view formed by AEMO](#); and
- (c) if the *referral* is an appeal under [rule clause 139\(5\)](#) or [rule clause 331](#) — the grounds of appeal; and
- (d) [if the referral is under clause 332\(b\)](#), the decision sought; and
- (e) [If the referral is under clause 332\(b\)](#), the orders sought.

334. Compliance panel may reject appeal

If in the *compliance panel*'s reasonable opinion:

- (a) a referral lodged under [rule clause 139\(5\)](#) or [rule clause 331](#) does not satisfy the requirements set out in [rule clause 333](#) (as applicable); or
- (b) the grounds of appeal are not sufficient having regard to the nature of the decision the appeal is in relation to and the reasons given for that decision,

then the *compliance panel* may decline to accept the *referral* within 20 *business days* of receipt of the *referral*.

{Note: If *participant* wishes to re-lodge the appeal, it may do so by lodging a further *referral* within the time frame indicated in [rule clause 331\(1\)](#).}

335. Withdrawal of referral to compliance panel

- (1) ~~REMC~~[AEMO](#) or a *participant, pipeline operator or prescribed person* that has lodged a *referral* may withdraw the *referral* at any time by *notice* to the *compliance panel*.

- (2) Upon receipt of withdrawal of the *referral*, the *compliance panel* must cease all actions, inquiries and *proceedings* in relation to the withdrawn *referral*.
- (3) The *compliance panel* may require ~~REMC~~AEMO or the *participant*, *pipeline operator* or *prescribed person* to reimburse the *compliance panel* for the reasonable costs incurred by the *compliance panel* and ~~REMC~~AEMO in connection with a *referral* to the *compliance panel*, up to the time it is withdrawn.
- (4) Where a *participant* withdraws a *referral*, the *compliance panel* may, if requested to by any other *participant*, *pipeline operator* or *prescribed person* that has been a party to the *compliance panel* proceedings, require the *participant*, *pipeline operator* or *prescribed person* to reimburse any other *participant*, *pipeline operator* or *prescribed person* that has been a party to the *compliance panel* proceedings for the reasonable costs incurred by the other *participant*, *pipeline operator* or *prescribed person* in connection with the *referral* to the *compliance panel*, up to the time it is withdrawn.

336. Proceedings

Within 20 *business days* after receiving *notice* of a *referral* under ~~rule 329(1)(a)(iii) or rule 329(1)(b)(iii)~~clause 329(1)(a), 329(1)(b)(i), 329(1)(d) or rule 331(1); the *compliance panel* must meet and commence the *proceeding* by giving *notice* to all *participants*, *pipeline operator* or *prescribed person* and ~~REMC~~AEMO specifying:

- (a) the subject matter of the *referral*; and
- (b) the timetable for the *proceeding*, including the date for lodgement of submissions and the date of the *hearing* (if applicable), in accordance with the ~~procedures~~procedures determined under ~~rule~~clause 338.

337. Parties

- (1) A person is a *party* to a *proceeding* if the person:
 - (a) made the *referral*; or
 - (b) notifies the *compliance panel* that it wishes to make a submission during the *proceeding*; or
 - (c) the person accepts an invitation from the *compliance panel* to make a submission during the *proceeding* within 5 *business days* after receiving the invitation under ~~rule~~clause 337(3).
- (2) Within 5 *business days* after notification under ~~rule~~clause 336(b) or such period as the *compliance panel* permits, a *participant*-, *pipeline operator* or *prescribed person* or ~~REMC~~AEMO may *notify* the *compliance panel* that it wishes to make submissions in relation to the *referral*.
- (3) The *compliance panel* may invite any *participant*, *pipeline operator* or *prescribed person* or ~~REMC~~AEMO to become a *party* to the *proceeding* if it appears to the *compliance panel* that:

- (a) the *participant's*, *pipeline operator's* or *prescribed person's* or ~~REMC~~*oAEMO's* interests are liable to be affected by a determination or order sought in the *proceeding*, or by the *proceeding* itself;
- (b) the *participant* is able to represent the interests of a class of *participant* who are liable to be so affected, whether or not the *participant* is a member of that class; or
- (c) the *participant* or ~~REMC~~*oAEMO* is likely to be able to assist the *compliance panel*, even if neither ~~rule~~*clause* 337(3)(a) or 337(3)(b) applies.

338. Compliance panel to determine its own ~~procedures~~*guidelines*

- (1) The *compliance panel* must, subject to the requirements of natural justice, adopt such ~~procedures~~*guidelines* as it sees fit for conducting the *proceedings* and a *hearing* under these ~~rules~~*procedures*, provided that:
 - (a) each *party* may lodge a written submission with the *compliance panel* in relation to the *referral*; and
 - (b) subject to ~~rule~~*clause* 342, the *compliance panel* must provide each *party* with a copy of each written submission it receives under ~~rule~~*clause* 338(1)(a); and
 - (c) if the *compliance panel* determines it is necessary to conduct a *hearing*, each *party* must be given *notice* of the *hearing* and may attend and make oral submissions to the *compliance panel*.
- (2) Each *participant*, *pipeline operator* or *prescribed person* and ~~REMC~~*oAEMO* must comply with the ~~procedures~~*procedures* adopted by the *compliance panel* under this ~~rule~~*clause* 338.
- (3) The *compliance panel* must resolve a matter referred to it under ~~rule~~*clause* 332 expeditiously and fairly.

339. Where hearings may be held

- (1) The *compliance panel* chairperson may determine the venue for a *compliance panel* *hearing*.
- (2) *Compliance panel* *hearings* ~~must be held in Western Australia~~*may be held in either jurisdiction or both as determined under rule 339(1).*

340. Rules of evidence do not apply

While conducting a *hearing*, the *compliance panel* is not bound by the rules of evidence and any *law* relating to the admissibility of evidence before a court of *law*, subject to the rules relating to self-incrimination and legal professional privilege, and may inform itself in relation to any matter in such manner as it thinks fit.

341. Determinations

- (1) The *compliance panel* must make its determination according to *law* and must:

- (a) take into consideration each submission received under [rules clauses](#) 338(1)(a) and 338(1)(c); and.
 - (b) for the first 12 months after the date that a change to the [rules procedures](#) comes into force, have regard to the fact that the [rules procedures](#) affected by the change are a new governing regime for *participants* and [REMCe AEMO](#); and
 - (c) for the first 6 months after a *person* becomes a *participant*, have regard to the fact that the [rules procedures](#) are a new governing regime for the new *participant*.
- (2) Within 30 *business days* after the close of submissions or the conclusion of a *hearing* (if applicable), the *compliance panel* must:
- (a) subject to [rule clause](#) 342, provide a copy of its determination and reasons to:
 - (i) all *participants*, *pipeline operator* and *prescribed persons*; and
 - (ii) [REMCe AEMO](#); and
 - (b) if the determination is in relation to a matter of [rule interpretation of the procedures](#) — provide its recommendation regarding the date on which the determination should take effect to:
 - (i) all *participants*, *pipeline operator* and *prescribed persons*; and
 - (ii) [REMCe AEMO](#).
- (3) Within 10 *business days* after receipt of the recommendation under [rule clause](#) 341(2)(b)(i), a *participant*, *pipeline operator* or *prescribed persons* may request [REMCe AEMO](#) to amend the date on which the determination takes effect and lodge a submission with [REMCe AEMO](#) in support of the request.
- (4) Within 20 *business days* after receipt of a request under [rule clause](#) 341(3), [REMCe AEMO](#):
- (a) must consider, and may, if reasonable, amend, the date on which the determination takes effect; and

{Note: [REMCe AEMO](#) may amend the date on which a [rule procedure](#) interpretation determination comes into effect to allow *participants* sufficient time to abide by the determination.}
 - (b) must *notify* each *participant*, *pipeline operator* or *prescribed persons* of the date on which the determination takes effect,
- provided that [REMCe AEMO](#) cannot consider determinations that have been against it.
- (5) A decision of the *compliance panel* under [rule clause](#) 341(1):
- (a) is final and binding on each *participant* and [REMCe AEMO](#); and
 - (b) takes effect as and from the date of the determination or, in respect of the date set by [REMCe AEMO](#) in relation to a [rule procedure](#) interpretation determination,

the date notified to *participants* under [rule clause 341\(4\)\(b\)](#), whichever is the later;
and

- (6) A *participant* and [REMCeAEMO](#) must comply with a decision of the *compliance panel*.

342. Compliance panel must preserve confidentiality

- (1) A *party* ("**first party**") may apply to the *compliance panel* to have *confidential information* contained in either:

- (a) a submission of the *first party*; or
- (b) information provided by the *first party* to the *compliance panel* under [rule clause 324\(1\)\(a\)](#),

withheld from another *party* ("**second party**") to a *proceeding* or in connection with the publication of the *compliance panel's* final determination.

- (2) If the *compliance panel* is satisfied that a *party* would be adversely affected by the disclosure of *confidential information* to another *party*, the *compliance panel* may withhold the *confidential information* from a *party* when providing the *party* with:

- (a) a copy of a submission under [rule clause 338\(1\)\(a\)](#); or
- (b) a copy of the *compliance panel's* determination and reasons under [rule clause 341\(2\)\(a\)](#),

and may, under this [rule clause 342](#), censor documents that it publishes to *participants* and [REMCeAEMO](#).

- (3) In making an application under [rule clause 342\(1\)](#), the *first party* must provide all of the information necessary for the *compliance panel* to consider whether:

- (a) the withholding of information would adversely affect the ability of the *compliance panel* to afford the *second party* procedural fairness;
- (b) the *second party* is likely to contravene the confidentiality obligations of this [rule clause 342](#); and
- (c) the prospect of adverse effects on the *second party* resulting from the *compliance panel* withholding the information is clearly outweighed by the prospect of adverse effects on other persons flowing from unauthorized use or disclosure of the information, if it is provided to the *second party* or its legal representatives.

- (4) A *participant*, *pipeline operator* or *prescribed person* and [REMCeAEMO](#) must not use or disclose information which is:

- (a) confidential in fact; and

- (b) disclosed to the *participant, pipeline operator or prescribed person* or ~~REMC~~AEMO (as the case may be) by the *compliance panel* or another party in, or in connection with, a *proceeding*,

except:

- (c) for the purposes of the *proceeding*; or
- (d) as authorized by a person with the right in equity to give that authorization, and in accordance with any conditions affecting that authorization.

- (5) If any such information is to be disclosed to a *participant, pipeline operator or prescribed person* or ~~REMC~~AEMO in accordance with this ~~rule~~clause 342, the person making the disclosure must inform the *participant, pipeline operator or prescribed person* or ~~REMC~~AEMO (as the case may be) that the information is confidential and must make the disclosure conditional on the information not being used or further disclosed otherwise than in accordance with this ~~rule~~procedure.

343. Determinations which may be made

- (1) In a determination under ~~rule~~clause 341, the *compliance panel* must take into consideration any penalties or sanctions that have already been imposed upon the *participant* in respect of the matter before the *compliance panel* for determination, and may:

- (a) impose a financial penalty on a *participant* or ~~REMC~~AEMO of up to \$50,000 in respect of each breach of the ~~rules~~procedures; or
- (b) order a *participant* or ~~REMC~~AEMO to take action, or cease action, to ensure compliance with the ~~rules~~procedures; or
- (c) impose a financial penalty of up to \$50,000 for any failure to comply with an earlier order of the *compliance panel*; or
- (d) make orders as to the payment by a *party* of the *compliance panel's costs*, including the cost of any experts appointed under ~~rule~~clause 324(1)(d) in relation to the proceedings; or
- (e) make orders as to the payment of *costs* of a *party* that attends the *compliance panel* hearing; or
- (f) adjourn the consideration of any matter before the *compliance panel* to allow a *participant* or ~~REMC~~AEMO to make further submissions or to allow further consideration by the *compliance panel*; or

(g) recommend changes to the ~~rules~~procedures; or

~~(g)~~(h) Determine that the breach is not material and take no further action.

- (2) The *compliance panel* may make interim determinations.

(3) The compliance panel may delegate to AEMO its power to assess and determine whether a breach is material or not material under clause 329.

~~(2)~~(4) If the compliance panel delegates its power under clause 343(3) above, the compliance panel may only make a determination under clause 343(1)(a) in respect of a breach if AEMO has determined that the breach is material.

344. Power to correct a determination

Within 5 *business days* after making a determination made under ~~rule~~clause 341(2), the *compliance panel* may correct the determination if the determination contains:

- (a) a clerical mistake; or
- (b) an accidental slip or omission; or
- (c) a material miscalculation of figures or a material mistake in the description of any person, thing or matter referred to in the determination; or
- (d) a defect of form.

345. No limitation on remedies

Nothing in this Chapter 6 limits a *participant's*, *pipeline operator* or *prescribed person* or ~~REMC~~AEMO's right to litigate, arbitrate or otherwise seek to resolve, any *dispute*.

346. Legal representation

- (1) Subject to ~~rule~~clause 346(2), a *party* may be legally represented.
- (2) A *party* must bear its own *costs* unless the *compliance panel* orders otherwise under ~~rule~~clause 343(1)(e).

347. Register of determinations

- (1) ~~REMC~~AEMO must ensure that a register of *compliance panel* determinations is *maintained* for the duration of the ~~rules~~*procedures*.
- (2) ~~REMC~~AEMO must publish *compliance panel* determinations, but in *maintaining* the register of *compliance panel* determinations ~~REMC~~AEMO may decide to withhold confidential or commercially sensitive information of a *participant*, *pipeline operator* or *prescribed person* or ~~REMC~~AEMO from the determination if it reasonably believes it is appropriate to do so, following a submission by the *participant*, *pipeline operator* or *prescribed person* or ~~REMC~~AEMO (as the case may be).
- (3) Upon receipt of a *compliance panel* determination, ~~REMC~~AEMO must update the register of *compliance panel* determinations.
- (4) ~~REMC~~AEMO must permit a *participant*, *pipeline operator* or *prescribed person* and an *interested person*, and may permit another person, to access the register of *compliance panel* determinations and may recover reasonable *costs* incurred in doing so.

348. Validity of determination

- (1) Any act done by the *compliance panel* is valid as if each *compliance panel* member were duly appointed and eligible to be a *compliance panel* member.
- (2) Without limiting the generality of ~~rule~~[clause](#) 348(1), any act done by the *compliance panel* is valid notwithstanding that it is afterwards discovered that a person acted as a *compliance panel* member although that person ceased, or should have ceased, to hold office, or did not validly hold office, under these ~~rules~~[procedures](#).
- (3) This ~~rule~~[clause](#) 348 applies, despite the subsequent receipt of actual *notice* by the *compliance panel* chairperson or ~~REMC~~[AEMO](#) of any defect in the appointment or ineligibility of any person as a *compliance panel* member.

Chapter 7 – Reporting and Audits

Part 7.1 – Explicit informed consent

349. Requirements for explicit informed consent

The provisions in Appendix 6 apply in relation to a *customer's explicit informed consent*.

Part 7.2– Audit

350. Audit of explicit informed consent

- (1) There is no [RuleClause](#) 350(1).
- (2) For each calendar year, a *user* must appoint an *auditor*, having regard to [ruleclause](#) 353, to undertake a *negative assurance audit* of the *user's* compliance during the year with [rulesclauses](#) 55A, 72(1), 72(4), 79(1), 79(4), 166A and 349.
- (3) The *user* must:
 - (a) ensure that the *negative assurance audit* is conducted under this Part 7.2; and
 - (b) provide the *auditor's* final report of its findings to [REMCeAEMO](#) within 3 months after the end of the year to which the *negative assurance audit* relates.

351. Audit of [REMCeAEMO](#)

- (1) [REMCeAEMO](#) must appoint an *auditor*, by having regard to [ruleclause](#) 353, to undertake a *negative assurance audit* of [REMCeAEMO's](#) compliance with the following parts of these [rulesprocedures](#): Part 2.1, Part 2.2, Part 2.3, Part 3.1, Part 3.3, Part 3.5, Part 3.6, Part 5.5, Part 5.6, Part 5.7, Part 5.8, Part 5.9, Part 5.10, Part 5.11, Part 5.12 in accordance with [ruleclause](#) 351(1A) to (3).
- (1A) A *negative assurance audit* under [ruleclause 351\(1\)](#) may cover some or all of the Parts of the [rulesprocedures](#) listed in [ruleclause 351\(1\)](#), provided that at least once every 3 years, each Part of the [rulesprocedures](#) listed in [ruleclause 351\(1\)](#) is subject to a *negative assurance audit* covering 12 consecutive months within that 3 year period.

{Note: the first 3 year period starts from the commencement of these [rulesprocedures](#) and ends 3 years thereafter. The next 3 year period starts immediately on completion of this first 3 year period and so on.}
- (2) [REMCeAEMO](#) may determine, in consultation with *participants*, the extent and scope of a *negative assurance audit* to be undertaken under [ruleclause 351\(1\)](#).
- (3) [REMCeAEMO](#) must:
 - (a) ensure that the *auditor* conducts any *negative assurance audit* in accordance with this Part 7.2; and
 - (b) obtain the *auditor's* final report of its findings within 3 months after the end of the period to which the *negative assurance audit* relates.

352. Audit of network operator's metering responsibilities

- (1) For each calendar year, each *network operator* must appoint an *auditor*, having regard to [rule clause 353](#), to undertake a *negative assurance* audit of the *network operator's* compliance during the year with [rules clauses 62, 153, 156, 160\(1\)\(j\) and 169](#).
- (2) A *network operator* must:
 - (a) ensure that the *negative assurance audit* is conducted in accordance with this Part 7.2; and
 - (b) provide the *auditor's* final report of its findings to [REMCo AEMO](#) within 3 months after the end of the year to which the *negative assurance audit* relates.

353. Auditor's qualifications etc.

An *auditor* appointed under this Part 7.2 must have sufficient qualifications, resources, professional skill and experience to enable it to undertake the audit for which it is appointed.

354. Auditor's conflict of interest

- (1) In this [rule clause 354](#), but subject to [rule clause 354\(4\)](#), the term “**conflict of interest**” includes, but is not limited to:
 - (a) the holding of any office; or
 - (b) the entering into, or giving effect to, any contract, arrangement, understanding or relationship,

by an *auditor* or any of its directors, officers, servants or agents whereby, directly or indirectly, duties or interests are or might be created for the *auditor* or any of the *auditor's* directors, officers, servants or agents which conflict, or might reasonably be expected to conflict, with any one or more of:
 - (c) the *auditor's* duties in conducting an audit under this Part 7.2; or
 - (d) the interests of [REMCo AEMO](#); or
 - (e) the interests of a *participant*.
- (2) A person required by this Part 7.2 to appoint an *auditor* must ensure that the *auditor*:
 - (a) before commencing any audit, and in any audit report, provides full disclosure of all actual or potential *conflicts of interest*;
 - (b) at all times has in operation effective [procedures](#) to detect any actual or potential *conflict of interest* which arises during the course of the audit; and
 - (c) forthwith notifies the person who appointed the *auditor* of any actual or potential *conflict of interest* which arises during the course of the audit, and of any non-compliance with this [rule clause 354](#).

- (3) A person required by this Part 7.2 to appoint an *auditor* must not appoint an *auditor*, or having appointed an *auditor* must terminate the appointment, if the person becomes aware of an actual or potential *conflict of interest* in the *auditor* which might reasonably be expected to materially adversely affect the *auditor's* independence and impartiality or the performance of its duties.

{Note: Examples of when an actual or potential *conflict of interest* in an *auditor* might reasonably be expected to materially adversely affect the *auditor's* independence and impartiality or the performance of its duties, would be if the *auditor* is the person who designed the relevant systems.}

- (4) An *auditor* appointed to conduct an audit under this Part 7.2 is not to be taken to have a *conflict of interest* merely because it has previously been appointed to conduct an audit under this Part 7.2, or because it carries out other audit duties for a *participant*.

355. Terms of auditor's retainer

Except as stated in [rule clause 356](#), the terms of retainer of an *auditor* appointed under this Part 7.2 (including regarding remuneration, expenses, insurances and liability) are to be agreed between the *auditor* and the person required by this Part 7.2 to appoint the *auditor*.

356. Confidentiality

- (1) A person required by this Part 7.2 to appoint an *auditor* must ensure that the *auditor* enters into a deed of undertaking substantially in the form set out in Appendix 4, but that deed remains subject to [rule clause 356\(2\)](#).
- (2) To the extent that disclosure by an *auditor* of any information or matter regarding a material non-compliance by a *participant* or [REMCeAEMO](#) is reasonably necessary for the *auditor* to report on the material non-compliance, the *participant* or [REMCeAEMO](#) (as the case may be) by this [rule procedure](#):
- (a) waives all of its rights to require that the *auditor* keep the information or matter confidential; and
 - (b) authorises disclosure by the *auditor* of the information or matter in accordance with this Part 7.2.

357. Participants, [REMCeAEMO](#), pipeline operators and prescribed persons must cooperate with auditor

- (1) A person being audited under [rules clauses 350, 351 or 352](#) must cooperate with and provide all reasonable assistance to an *auditor* appointed under this Part 7.2.
- (2) Without limiting [rule clause 357\(1\)](#), a person being audited under [rules clauses 350, 351 or 352](#) must comply without delay with any request by the *auditor* for the purpose of conducting an audit under this Part 7.2 for the person:
- (a) to deliver to the *auditor* specified documents or records; and
 - (b) to permit the *auditor*:
 - (i) to access the its premises during a business day; and

(ii) to take copies of its records.

- (3) Each of a *participant*, ~~REMC~~*CoAEMO*, *pipeline operator* and *prescribed person* who is not being audited under ~~rules~~*clauses* 350, 351 or 352 must cooperate with and provide reasonable assistance to an *auditor* appointed under this Part 7.2.
- (4) As a pre-condition to cooperating and providing assistance under ~~rule~~*clause* 357(3), a person may request to be identified as a covenantee under a deed executed under ~~rule~~*clause* 356(1).

358. Audit report

A person required by this Part 7.2 to appoint an *auditor* must ensure that the *auditor's* report of a *negative assurance audit* under this Part 7.2 at least:

- (a) provides reasonable detail regarding the *auditor's* investigations and methodology; and
- (b) details any material restrictions or deficiencies in the *auditor's* access to or use of relevant documents or records; and
- (c) without limiting ~~rule~~*clause* 358(b), details the circumstances of any non-compliance by a *participant* or ~~REMC~~*CoAEMO* with ~~rule~~*clause* 357, in respect of the *negative assurance audit*; and
- (d) complies with the deed of undertaking under ~~rule~~*clause* 356(1); and
- (e) makes all disclosures required under ~~rule~~*clause* 354(2)(a); and
- (f) either:
 - (i) states that the *negative assurance audit* did not disclose non-compliance; or
 - (ii) provides details of each breach, non-compliance or other circumstance which prevents a statement under ~~rule~~*clause* 358(f)(i) being made.

359. Level of Audit

- (1) In this ~~rule~~*clause* 359, “**level**” means the degree of rigour with which a *negative assurance audit* is undertaken, including the size and nature of any sample used and the extent, if any, to which the sample is representative.
- (2) The person who appoints an *auditor* under this Part 7.2 (“**appointor**”) and the appointed *auditor* are to agree the *level* of the *negative assurance audit*.
- (3) Each *appointor* must ensure that the intensity of the *negative assurance audit* is adequate and reasonable having regard to:
- (a) the requirements set out in this Part 7.2; and

- (b) the need for the *level* to be sufficient for the *auditor* as a *reasonable and prudent person* to state that the *negative assurance audit* did not disclose non-compliance; and
 - (c) the objective that where possible, *participants* are to seek to minimise the *costs* of participating in the gas retail market and to achieve the best possible *cost-benefit mix*; and
 - (d) the objective that a *negative assurance audit* is normally designed to verify that systems and processes are functioning correctly.
- (4) A *participant* or **REMCeAEMO** may challenge the adequacy or *level* of a *negative assurance audit* conducted under this Part 7.2 by referring a matter to **REMCeAEMO** under **ruleclause** 325.

360. **REMCeAEMO's audit summary report**

- (1) For each calendar year, **REMCeAEMO** must produce a report, after consulting with the *participant* regarding the content of the report, within 4 months after the end of the calendar year which:
 - (a) details all significant instances of non-compliance identified in each of the *auditor's* reports produced under this Part 7.2; and
 - (b) details any action that has been taken or is proposed in respect of each instance of non-compliance identified under **ruleclause** 360(1)(a).
- (2) **REMCeAEMO's** report under **ruleclause** 360(1) must as far as practicable be consistent with making adequate disclosure, not disclose details of matters expressly identified to it by a *participant* during the consultation under **ruleclause** 360(1) as comprising the *participant's* intellectual property, marketing systems, information technology or otherwise being confidential or commercially sensitive information.

Part 7.3 – Other provisions regarding records

361. Records needed by **REMCeAEMO** to meet reporting obligations

To the extent reasonably necessary to enable **REMCeAEMO** to meet its reporting and information provisions under *law*, a *participant* must upon reasonable request by **REMCeAEMO** assist **REMCeAEMO** by making available reasonable access to records and relevant information.

Part 7.4– There is no part 7.4

361A. There is no **ruleclause** 361A

Chapter 8 – Administration

Part 8.1 – Fees, charges and cost recovery

362. Fees and charges under these ~~rules~~procedures

Nothing in these ~~rules~~procedures:

- (a) prevents a *participant, pipeline operator or prescribed person* from charging for doing a thing, if the person is entitled at *law* or under an *Access Arrangement* or a contract other than these ~~rules~~procedures to charge for doing that thing; and
- (b) allows a *participant, pipeline operator or prescribed person* to charge for doing a thing (including providing information or taking any action) under these ~~rules~~procedures, unless otherwise stated in these ~~rules~~procedures.

362A. Recovery of ~~REMC~~AEMO's costs

- (1) ~~REMC~~AEMO may, in order to recover the costs of establishing itself and operating as the market administrator of these ~~rules~~procedures, determine the amount of the *registration fee, service fee and market share charge* in accordance with the following cost recovery principles:

- (a) in recovery of its costs, the charges imposed by ~~REMC~~AEMO on *users*, who are ~~*Scheme participants*~~*REMC*~~*members*~~, shall not be such as to create a material barrier to entry for new entrants, ~~*small users, or self-contracting users*~~;
- (b) fees and terms and conditions should be simple to understand and implement;
- (c) to the extent that is administratively feasible, the fee set should provide efficient market signals;
- (d) the costs are to be clearly identifiable;
- (e) costs may be recovered in such a way as to ensure account is taken of the time value of money;
- (f) ~~there is no rule 362A(1)(h)~~AEMO is to have discretion to charge a lower registration fee and service fee for small users and self-contracting users;
- (g) ~~There is no rule 362A(1)(i)~~AEMO's discretion under this clause 362A is to include determining the definition of a "small" user, and what the fees for small users and self-contracting users should be; and

- ~~(h)~~ reasonable costs may include any revenue offsets from the commercialisation of the ~~REMC~~AEMO *information system* and software which accommodate the full contestability of retail gas markets, including any discretionary services in excess of standard services.

Note: In exercising this discretion under clause 362A(1), AEMO is to consider the principles listed in clause 7A. AEMO can define small user by reference to the number of customers, quantity of gas transported, or any other characteristic.

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- (2) Each Scheme participant ~~REMCo member~~ must pay to ~~REMCo~~ AEMO (as applicable):
- (a) the *registration fee* — upon becoming a Scheme participant ~~REMCo member~~;
 - (b) the *service fee* — once every 12 month period when invoiced by ~~REMCo~~ AEMO under ~~rule~~ clause 370(1)(a);
 - (c) the *market share charge* — once every month when invoiced by ~~REMCo~~ AEMO under ~~rule~~ clause 370(1)(b) and
 - (d) any *additional service charge* determined by ~~REMCo~~ AEMO pursuant to ~~rule~~ clause 362A(7), when invoiced by ~~REMCo~~ AEMO under ~~rule~~ clause 370(1)(C).
- (3) There is no ~~rule~~ clause 362A(3).
- (4) The *registration fee* and the *service fee* may be adjusted annually on 1 July of each year, effective from 1 July 2005 (“**annual adjustment date**”).
- (5) The maximum amount of any adjustment to the *registration fee* or the *service fee* is to be calculated as at the *annual adjustment date* by multiplying the *registration fee* or the *service fee* (as applicable) by:
- (a) the *specified price index* for the period ending 31 March, of each year immediately preceding the *annual adjustment date*,
- divided by:
- (b) the *specified price index* for the same period ending 31 March referred to in ~~rule~~ clause 362A(5)(a) in the year immediately preceding the year in which the *annual adjustment date* falls.
- (6) If the *specified price index* ceases to be published on a quarterly basis by the Australian Bureau of Statistics or is published on a basis materially different (including due to a change in its nature, composition or reference base) to its basis ~~in 2004-at the go-live date~~, then the basis for adjusting the *registration fee* and the *service fee* will be based upon the measurement of consumer price changes in the eight capital cities of Australia as decided by a chartered accountant, acting as an expert, and as appointed by ~~REMCo~~ AEMO.
- (7) ~~REMCo~~ AEMO may recover the costs of providing an *additional service* to a Scheme participant ~~member~~ by charging the Scheme participant ~~member~~ an *additional service charge* where the payment of the *additional service charge* has been agreed by the Scheme participant ~~member~~.

Part 8.2– Confidentiality

363. Confidentiality obligations

- (1) Subject to ~~rule~~ clause 364, a *recipient* must:

- (a) keep confidential any *confidential information* provided to it under these ~~rules~~procedures; and
 - (b) not disclose *confidential information* to any person except as permitted by these ~~rules~~procedures; and
 - (c) only use or reproduce *confidential information* for the purpose for which it was disclosed or another purpose contemplated by these ~~rules~~procedures; and
 - (d) not permit unauthorised persons to have access to *confidential information*.
- (2) Subject to ~~rule~~clause 364, a *recipient* must use all reasonable endeavours:
- (a) to prevent unauthorised access to *confidential information* which is in the possession or control of that *recipient*; and
 - (b) to ensure that its *secondary recipients* observe the provisions of this ~~rule~~clause 363 in relation to the *confidential information*.
- (3) Despite any other provision of these ~~rules~~procedures, a person must continue to comply with this ~~rule~~clause 363 after it has otherwise ceased to be subject to these ~~rules~~procedures.

364. Exceptions to confidentiality requirements

~~Rule~~Clause 363 does not prevent:

- (a) the disclosure, use or reproduction of information if the information is at the time generally publicly available other than as a result of breach of confidence by a *recipient* or by a *secondary recipient*; or
- (b) the disclosure of information by a *recipient* or by a *secondary recipient* to:
 - (i) an employee or officer of the *recipient*; or
 - (ii) a *related body corporate* of the *recipient*; or
 - (iii) a legal or other professional advisor, auditor or other consultant of the *recipient*,
that requires the information for the purposes of these ~~rules~~procedures, or for the purpose of advising the *recipient* in relation to these ~~rules~~procedures; or
- (c) the disclosure, use or reproduction of information with the consent of the person who provided the information under these ~~rules~~procedures; or
- (d) the disclosure, use or reproduction of information to the extent required by *law* or by a statutory requirement, *notice*, order or direction of:
 - (i) a government authority having jurisdiction over a *recipient* or its *related bodies corporate*; or

- (ii) a recognised stock exchange having jurisdiction over a *recipient* or its *related bodies corporate*; or
- (e) the disclosure, use or reproduction of information requested by the *compliance panel* under [rule clause 324\(1\)\(a\)](#); or
- (f) the disclosure, use or reproduction of information required:
 - (i) in connection with; or
 - (ii) for the purpose of advising a person in relation to,

legal proceedings, arbitration, expert determination or other dispute resolution mechanism relating to these [rules procedures](#);
- (g) the disclosure, use or reproduction of information which is required to protect the safety of personnel or equipment; or
- (h) without limiting [rule clause 364\(d\)](#) the compulsory disclosure of information to the *Economic Regulation Authority* or any other regulatory authority having jurisdiction (as the case may be), under these [rules procedures](#) or otherwise.

365. Conditions on disclosure of confidential information

Prior to disclosing information under [rule clause 364\(b\)](#), [364\(e\)](#) or [364\(h\)](#) to a *secondary recipient*, a *recipient* must:

- (a) inform the *secondary recipient* that the information is *confidential information*; and
- (b) take appropriate precautions to ensure that:
 - (i) the *confidential information* remains confidential despite the disclosure under [rule clause 364](#); and
 - (ii) the *secondary recipient* does not use the information for any purpose other than that permitted under [rule clause 364](#).

366. Confidentiality indemnity

- (1) Subject to [rule clause 366\(2\)](#), each *participant*, *pipeline operator* and *prescribed person* (“*indemnifier*”) indemnifies [REMCo AEMO](#) against any *claim*, action, damage, loss, liability, expense or outgoing which [REMCo AEMO](#) pays, suffers, incurs or is liable for in respect of any breach by the *indemnifier* or any officer, agent or employee of the *indemnifier* (as the case may be) of [rule clause 363](#).
- (2) An *indemnifier* is not responsible for, and is not required to indemnify [REMCo AEMO](#) against, any breach by any officer, agent or employee of the *indemnifier* (as the case may be) of [rule clause 363](#), if the officer, agent or employee was acting for and on behalf of [REMCo AEMO](#) as [REMCo AEMO](#)’s agent, at the time of breaching [rule clause 363](#).

Part 8.3 – Payments to REMCoAEMO

367. Payment

A payment to REMCoAEMO under these ~~rules~~ procedures must be paid by direct electronic funds transfer to a bank account (nominated by REMCoAEMO).

368. Financial penalties

A participant must pay to REMCoAEMO a financial penalty imposed by the compliance panel within 20 business days after receipt of a notice from the compliance panel to pay the penalty.

369. There is no ~~rule~~ clause 369.

370. Invoices etc.

- (1) Within 5 business days of the commencement of each calendar month, REMCoAEMO must provide each Scheme participant ~~REMCo member~~ (as necessary) with an invoice in the form of a tax invoice showing (as applicable):
 - (a) the amount of the service fee that the Scheme participant ~~REMCo member~~ is being charged in advance for the applicable invoice period; and
 - (b) the amount of the market share charge that the user who is a Scheme participant ~~REMCo member~~ is being charged in advance for the applicable invoice period; and
 - (c) the amount of any additional service charge that the Scheme participants ~~member~~ is being charged; and
 - (d) any refunds payable to the Scheme participant ~~REMCo member~~ for the invoice period (as applicable) and if the refund is payable as a result of a disputed invoice under ~~rule~~ clause 372, the refund together with interest on that amount calculated on a daily basis at the interest rate minus 4% per annum from the date that REMCoAEMO received the overpayment from the participant; and
 - (e) any outstanding amounts (whether those amounts were originally payable or refundable) from previous invoice periods (as applicable) and the interest payable thereon at the interest rate plus 2% per annum; and
 - (f) any undercharged amounts that were not charged or were not charged in full from previous invoice periods (as applicable) and the interest payable thereon at the interest rate; and
 - (g) any other information specified by REMCoAEMO from time to time.
- (2) A Scheme participant ~~REMCo member~~ must pay an invoice received from REMCoAEMO within 10 business days after receipt of the invoice, regardless of whether the invoice is disputed under ~~rule~~ clause 372.

371. GST

- (1) In this [ruleclause](#) 371:
 - (a) words and expressions which are not defined in these [rulesprocedures](#) but which have a defined meaning in the *GST Law* have the same meaning as in the *GST Law*; and
 - (b) “**GST Law**” has the meaning given to that expression in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).
- (2) Unless otherwise expressly stated, all prices or other sums payable or consideration to be provided under these [rulesprocedures](#) are exclusive of GST.
- (3) If GST is payable by:
 - (a) a supplier; or
 - (b) by the representative [Scheme participant member](#) for a GST group of which the supplier is a [Scheme participantmember](#),on any supply made under these [rulesprocedures](#), the recipient of the supply must pay to the supplier an amount equal to the GST payable on the supply.
- (4) The recipient must pay the amount referred to in [ruleclause](#) 371(3):
 - (a) in addition to the consideration for the supply; and
 - (b) at the same time that the consideration for the supply must be provided under these [rulesprocedures](#).
- (5) The supplier must provide a tax invoice or an adjustment note to the recipient before the supplier is entitled to payment of the amount under [ruleclause](#) 371(3).
- (6) The recipient may withhold payment of the amount under [ruleclause](#) 371(3) until the supplier provides a tax invoice or an adjustment note, as appropriate.
- (7) If an adjustment event arises in respect of a taxable supply made by a supplier under these [rulesprocedures](#), the amount payable by the recipient under [ruleclause](#) 371(3) must be recalculated to reflect the adjustment event and the recipient must make a payment to the supplier or the supplier must make a payment to the recipient, as the case requires.
- (8) Where these [rulesprocedures](#) require a person to pay or reimburse an expense or outgoing of another person, the amount to be paid or reimbursed by the first person will be the sum of:
 - (a) the amount of the expense or outgoing less any input tax credits in respect of the expense or outgoing to which the other person, or to which the representative [Scheme participant member](#) for a GST group of which the other person is a [Scheme participantmember](#), is entitled; and

- (b) if the payment or reimbursement is subject to GST, an amount equal to that GST.

372. Disputed invoices

- (1) If a *Scheme participant* ~~REMC member~~ disputes an invoice from ~~REMC~~AEMO, it must *notify* ~~REMC~~AEMO of the disputed invoice within 60 *business days* after receipt of the invoice by writing to ~~REMC~~AEMO's chief executive officer and providing details of the *dispute*.
- (2) If, as a result of the resolution of a disputed invoice under *rule clause* 372(1), ~~REMC~~AEMO is obliged to re-pay part or the whole of an amount received under *rule clause* 370(2) to a *Scheme participant* ~~REMC member~~, then ~~REMC~~AEMO must pay the amount under *rule clause* 370(1)(d).

Part 8.4 – Small use customer and small use customer indicator determination

373. ~~REMC~~AEMO to determine whether a consumer is a small use customer

- (1) There is no *rule clause* 373(1).
- (2) ~~REMC~~AEMO must determine whether a *customer* is a *small use customer*, in accordance with this *rule clause* 373.
- (3) The determination is to be made in accordance with section 3 of the *Energy Coordination Act 1994* (WA).
{Note: At the time these *rules/procedures* commenced, that definition was "...means a customer whose consumption of gas is less than 1 terajoule per year".}
- (4) For the purposes of these *rules/procedures*, a *customer* at an *interval-metered delivery point*, is not a *small use customer*.
- (5) Upon receipt of a valid *new connection notice* for a *basic-metered delivery point*, ~~REMC~~AEMO must determine whether a *customer* is a *small use customer* by having regard to the information provided by the *network operator* in the *new connection notice* under *rule clause* 66(e).
- (6) Within 5 *business days* of the end of each six month period *from May each year*, ~~AEMO~~, ~~with the first six month period commencing on the go-live date~~, ~~REMC~~ must determine whether a *customer* is a *small use customer* by having regard to:
 - (a) where available, the gas consumed by the *customer* at the *delivery point* for the previous 12 month period; or
 - (b) otherwise, in accordance with the determination made by ~~REMC~~AEMO under *rule clause* 373(5) or ~~REMC~~AEMO's previous six month determination made under this *rule clause* 373(6).

{Note: Upon making a determination under this *rule clause* 373, ~~REMC~~AEMO must update the ~~REMC~~AEMO registry under *rule clause* 52(b) and provide the *user* and *network operator* with the ~~REMC~~AEMO standing data for the *delivery point* under *rule clause* 53(1).}

373A. There is no *rule clause* 373A.

373B There is no [rule clause](#) 373B

Part 8.5– Limitation of liability

374. No liability for as-retrieved data

To the extent permitted by *law*, a person (“**first person**”) is not liable for any loss or damage suffered or incurred by any other person (“**second person**”) as a consequence of any act or omission of the provision of *as-retrieved* data, unless the first person:

- (a) does not act in good faith; or
- (b) acts fraudulently.

375. No liability for acting in reliance on data provided by others

- (1) If a person (“**first person**”) receives data or information of any nature (“**data**”) from another person under these [rules procedures](#) (“**second person**”), and the *first person* sends that *data* onto a third person under these [rules procedures](#) (“**third person**”), the *first person* is not responsible for and has no liability to the *third person* in respect of any error or omission in the *data*, provided that the *first person* has not altered the *data* in any way.
- (2) Subject to [rule clause](#) 375(3), except any warranty that cannot be excluded by operation of *law*, the *first person* gives no representations or warranties (expressed or implied) to the *third person* in respect of the reliability, suitability, adequacy or *accuracy* of the *data* provided under [rule clause](#) 375(1).
- (3) If the *first person* has in any way altered the *data* provided to the *third person* under [rule clause](#) 375(1), then the *first person* represents and warrants to the *third person* that the *data* so provided is *accurate*, except if the *data* being provided is:
 - (a) an estimate; or
 - (b) a calculation derived at as a *reasonable and prudent person* but being based upon the *data* provided by the *second person* under [rule clause](#) 375(1).

{Note: Under [rule clause](#) 376A(2), a breach of this warranty will expose the *first person* to liability for more than just direct damage.}

376. Liability for direct damage only

A person under these [rules procedures](#) (including its directors, servants, consultants, independent contractors and agents (“**associated persons**”)) who is negligent or defaults in respect of its obligations to another person under these [rules procedures](#) is liable to the other person for any loss or damage which is not *indirect damage* caused by or arising out of the negligence or default.

376A. Liability for indirect damage in certain circumstances only

- (1) Subject to [rule clause](#) 376A(2), no person (including its *associated persons*) under these [rules procedures](#) is under any circumstances to be liable to another person under

these [rules/procedures](#) for any *indirect damage*, however arising including by negligence.

- (2) The exclusion of *indirect damage* in [rule/clause](#) 376A(1) does not apply to a warranty given under [rule/clause](#) 56(2), 72(2), 79(2), 80(3), 81(2), 87(4), 167(2), 173(9), 193(1), 267(4), 268(3) or 375(3) and therefore the person's (and its *associated persons*) liability in relation to the matter is to be determined by *law*, and to avoid doubt the definition of "*indirect damage*" in these [rules/procedures](#) is to be disregarded for the purposes of that determination.

376B. Fraud

- (1) A person under these [rules/procedures](#) (including its *associated persons*) who is fraudulent in respect of its obligations to another person under these [rules/procedures](#) is to be liable to the other party for, and is to indemnify that other party against, all losses, liabilities and expenses caused by, consequential upon or arising out of the fraud.
- (2) The exclusion of *indirect damage* in [rule/clause](#) 376A(1) does not apply to liability under [rule/clause](#) 376B(1) and therefore a person's (including its *associated persons*) liability in relation to the fraud is to be determined by *law*, and to avoid doubt the definition of "*indirect damage*" in these [rules/procedures](#) is to be disregarded for the purposes of that determination.

376C. Extended scope of this part

Each person acts as agent and trustee for its *associated persons* (other than any other person's) for the purpose only of providing to those persons the benefit of any term in these [rules/procedures](#) which is expressed to apply to those persons and each such person is taken to have given consideration for those benefits.

376D. No third party benefit

Subject to [rule/clause](#) 376C, no person other than a person required to comply with these [rules/procedures](#) or its related entities is to obtain any benefit or entitlement under these [rules/procedures](#), despite that person being referred to in these [rules/procedures](#) or belonging to a class of persons which is referred to in these [rules/procedures](#).

377. [REMCo/AEMO](#)'s limitation of liability

- (1) To the extent permitted by *law*, [REMCo/AEMO](#) its officers, employees and agents will not be liable for any direct, indirect, incidental, special or consequential damages or loss of profits or revenue claims of any kind which result from any breach, unlawful act or negligent act or omission of [REMCo/AEMO](#), its officers, employees or *agents* in performing its obligations under these [rules/procedures](#).
- (2) Where liability under these [rules/procedures](#) cannot by *law* be excluded, [REMCo/AEMO](#)'s liability (including any liability of its officers, employees and *agents*) to *participants*, *pipeline operators* or *prescribed persons* in respect of any breach of [REMCo/AEMO](#)'s obligations under these [rules/procedures](#) is (at [REMCo/AEMO](#)'s option) limited to:

- (a) supplying the services again; or
 - (b) paying the cost of having the services supplied again.
- (3) In this [rule](#)[clause](#) 377, “**agent**” includes contractors and third parties engaged to provide goods or perform services relating to [REMCeAEMO](#)’s obligations under these [rules](#)[procedures](#) for or on behalf of [REMCeAEMO](#).

377A. Indemnifying [REMCeAEMO](#)

- (1) Each *participant*, *pipeline operator* and *prescribed person* (“**indemnifying party**”) must indemnify and keep indemnified [REMCeAEMO](#) from all losses, costs (including legal costs on a solicitor client or full indemnity basis, whichever is the greater), expenses, claims (including third party claims, claims in respect of loss of revenue or profit or claims for punitive or consequential damage), demands, proceedings or liability suffered or incurred by [REMCeAEMO](#) arising directly or indirectly from or as a consequence of any or all of any breach, unlawful act, or negligent act or omission of the *indemnifying party*, or its officers, employees or agents, in carrying out its obligations under these [rules](#)[procedures](#).
- (2) The maximum aggregate amount payable by a party under [rule](#)[clause](#) 377A(1) is limited to \$10,000,000.
- (3) Each *participant*, *pipeline operator* and *prescribed person* must be insured in respect of potential liability, loss or damage, arising under [rule](#)[clause](#) 377A(1), for a minimum aggregate liability of \$10,000,000, and must maintain such insurances during the period that it is operating under these [rules](#)[procedures](#) and for a period of 7 years thereafter.

Part 8.6 – Exiting the market

377B. Exiting the market

- (1) In this [rule](#)[clause](#) 377B:
 - (a) “**active in the market**”:
 - (i) for a *user* for a *sub-network* — means that a *user* is the *current user* for one or more *delivery points* in the *sub-network*; and
 - (ii) for a *shipper* – means that the *shipper* is listed in the *shipper register*;
 - (iii) for a *swing service provider* — means that the *swing service provider* is a party to a *SSPUD*.
 - (b) “**exit the market**” means cease compliance with these [rules](#)[procedures](#).
- (2) A *user* may not exit the market in respect of a *sub-network*:
 - (a) while it is active in the market in the sub-network; and
 - (b) until the earlier of:

- (i) the day that is 425 + X days after the *user* ceases to be *active in the market* in the *sub-network*, where “X” has the value given to it in ~~rule~~[clause](#) 243(4); and
 - (ii) the day that the *user* demonstrates to ~~REMC~~[AEMO](#)’s satisfaction that the *user* has an agreement with another person to fulfil the *user*’s obligations under Chapter 5 in respect of any future URAA or SRQ calculated for the *user* for the *sub-network*.
- (3) A *swing service provider* may not exit the market:
 - (a) while it is active in the market; and
 - (b) until the earlier of:
 - (i) the day that is 2 days after the last day that the *swing service provider* was specified in a *contract note*; and
 - (ii) the day that the *swing service provider* demonstrates to ~~REMC~~[AEMO](#)’s satisfaction that the *swing service provider* has an agreement with another person to fulfil the *swing service provider*’s obligations under Chapter 5, a *SSPUD* and any *contract note*.
- (4) A *shipper* may not exit the market:
 - (a) while it is active in the market; and
 - (b) until the day that the *shipper* demonstrates to ~~REMC~~[AEMO](#)’s satisfaction that the *shipper* has an agreement with another person to fulfil the *shipper*’s obligations under Chapter 5.
- (5) A person other than a *user*, a *swing service provider* or a *shipper* may not *exit the market* until it ceases to have any actual or contingent liability or obligation under these ~~rules~~[procedures](#).

Chapter 9 – RuleProcedure change process

Part 9.1 – Introduction

{(Note 1: This Chapter sets out the ruleprocedure change process, however ancillary documents to the rulesprocedures, some of which are set out in the Appendices, can be amended outside of this ruleprocedure change process, as set out in clause 16out-in-0.)}

{(Note 2: If a change to any of the clauses contained in this Chapter occurs, a review of the WA Gas Retail Market Procedure Change Guideline will be required to evaluate whether the guideline also needs to be amended)}

378. RuleProcedure change request

- (1) A participant, pipeline operator, prescribed person or ~~an~~ interested person may lodge in writing a ruleprocedure change request with ~~REMC~~AEMO on any business day.
- (2) A ruleprocedure change request must specify at least the following information:
 - (a) the GBO identification or the identity (as applicable) of the person lodging the ruleprocedure change request; and
 - (b) the reason for the ~~proposed rule~~procedure change request; and
 - (c) the ~~proposed rule~~procedure change request, either as marked-up changes to the text of the rulesprocedures or as a detailed summary of the proposed change to the rulesprocedures; and
 - (d) the anticipated impact of the proposed rule change to the procedures on affected persons; and
 - (e) the proposed time frame for implementation of the proposed rulechange to the procedures.

378A. Proponent may withdraw a ruleprocedure change request

- (1) A proponent may, at any time prior to the time that ~~REMC~~AEMO endorses a proposed rulechange to the procedures under ruleclause 399(1)(a), withdraw a ruleprocedure change request lodged by the proponent by lodging with ~~REMC~~AEMO a ruleprocedure change withdrawal request.
- (2) A ruleprocedure change withdrawal request must specify at least the following information:
 - (a) the GBO Identification or the identity (as applicable) of the person lodging the ruleprocedure change withdrawal request;
 - (b) the date on which the ruleprocedure change request that the person is seeking to withdraw was lodged with ~~REMC~~AEMO;
 - (c) the ruleprocedure change request reference that ~~REMC~~AEMO assigned to the ruleprocedure change request that the person is seeking to withdraw or a description of the ruleprocedure change request; and

(d) the reason for lodging the ~~rule~~procedure change withdrawal request.

- (3) Within two *business days* after receiving a ~~rule~~procedure change withdrawal request ~~REMC~~oAEMO must either accept or reject the request and notify the person lodging the request of its decision.

378B. ~~Rule~~Procedure change outline

A ~~rule~~procedure change outline must include:

- (a) the proposed ~~rule~~procedure change and any applicable *alternative amendments* as marked-up changes to the text of the ~~rules~~procedures;
- (b) any other information that ~~REMC~~oAEMO considers is relevant.

379. Impact and implementation report

An *impact and implementation report* must include:

- (a) a copy, or instructions on how to obtain a copy, of the ~~rule~~procedure change outline; and
- (b) the identity of which *participants, pipeline operators* and ~~shippers~~prescribed persons will be affected by the proposed ~~rule~~procedure change; and
- (c) an analysis of the impact of the proposed ~~rule~~procedure change on the persons identified under ~~rule~~clause 379(b) above; and
- (d) an analysis of the anticipated implementation time, implementation cost and ongoing *cost* associated with the proposed ~~rule~~procedure change; and
- (e) a cost/benefit analysis of the proposed ~~rule~~procedure change.

380. Recommendation report

A *recommendation report* must include:

- (a) a copy, or instructions on how to obtain a copy, of the ~~rule~~procedure change outline; and
- (b) instructions on how to obtain a copy of the *impact and implementation report* prepared by ~~REMC~~oAEMO; and
- (c) a *recommended* ~~rule~~procedure change to implement the ~~rule~~procedure change request (if this is different from the marked-up changes in the ~~rule~~procedure change outline); and
- (d) an implementation plan for the *recommended* ~~rule~~procedure change (if any specific implementation considerations have been identified); and
- (e) advice on the impact of the *recommended* ~~rule~~procedure change on ~~REMC~~oAEMO, *participants, pipeline operators* and *prescribed persons*.

381. Timing of ~~rule~~procedure change

Each of ~~REMC~~oAEMO, the ~~rule~~procedure change committee, participants, pipeline operators and prescribed persons must fulfil their obligations under Part 9.2 expeditiously.

382. There is no ~~rule~~clause 382

Part 9.2– ~~Rule~~Procedure change

383. ~~REMC~~oAEMO must have established ~~rule~~procedure change committee

- (1) ~~REMC~~oAEMO must establish a ~~rule~~procedure change committee under these ~~rules~~procedures.
- (2) As soon as practicable and in any event within 3 months after a ~~rule~~procedure change committee member retires, is removed or otherwise vacates the office, ~~REMC~~oAEMO must appoint a replacement member.

384. Composition of ~~rule~~procedure change committee

- (1) The ~~rule~~procedure change committee must comprise the following members:
 - (a) one member representing ~~REMC~~oAEMO, who is the chairperson of the ~~rule~~procedure change committee; and
 - (b) at least one member representing the interests of the network operators; and
 - (c) one member representing the interests of the user that has a market share of at least 50%; and
 - (d) at least one member representing the interests of all users other than those referred to in ~~rule~~clause 384(1)(c).
- (2) An observer from the approving body may attend each ~~rule~~procedure change committee meeting.
- (3) Nothing said, or done, or omitted to be said or done, by the observer referred to under ~~rule~~clause 384(2), fetters the approving body's discretion in approving or not approving an endorsed ~~rule~~procedure change submitted to the approving body for approval, or otherwise makes the approving body or the State liable in any way to any person including for negligence.

385. Tenure of ~~rule~~procedure change committee members

- (1) ~~REMC~~oAEMO may appoint each ~~rule~~procedure change committee member for a period of up to 2 years.
- (2) ~~REMC~~oAEMO may re-appoint a ~~rule~~procedure change committee member whose tenure has finished.
- (3) A person immediately ceases to be a member of the ~~rule~~procedure change committee if the person:

- (a) becomes of unsound mind or a person liable, or a person whose assets are liable, to any control or administration under any law relating to physical or mental health; or
 - (b) resigns by notice to ~~REMC~~oAEMO; or
 - (c) dies.
- (4) ~~REMC~~oAEMO may remove a ~~rule~~procedure change committee member in the following circumstances:
- (a) if the member becomes bankrupt, is convicted of fraud or on indictment of an offence other than fraud or is otherwise ineligible to be appointed as a director of a corporation under the Corporations Act 2001; or
 - (b) if ~~REMC~~oAEMO considers that the member has failed to adequately discharge the duties of a ~~rule~~procedure change committee member (including failure to consult with, represent the views of, or keep informed other participants of the type the member is appointed to represent); or
 - (c) if ~~REMC~~oAEMO considers that the ~~rule~~procedure change committee member is otherwise unfit to hold the position of ~~rule~~procedure change committee member.
- (5) ~~REMC~~oAEMO must forthwith notify a person in writing of his or her removal under ~~rule~~clause 385(4).

386. Objectives of ~~rule~~procedure change committee

- (1) The ~~rule~~procedure change committee is to operate under these ~~rules~~procedures on the basis of the following objectives:
- (a) to ensure that the retail gas market operates and is governed in a manner that is:
 - (i) open and competitive; and
 - (ii) efficient; and
 - (iii) fair to participants and their customers; and
 - (b) to ensure compliance with all applicable laws; and
 - (c) to ensure consultation with all participants, pipeline operators, prescribed persons and interested persons as is reasonably required to meet the objectives set out in this ~~rule~~procedure.

387. Quorum

Quorum for a meeting of the ~~rule~~procedure change committee is 4 members, including at least one member under ~~rules~~clauses 384(1)(a) to 384(1)(d).

388. Meetings

- (1) The ~~rule~~procedure change committee must meet as and when required by these ~~rules~~procedures.
- (2) The ~~rule~~procedure change committee chairperson must ensure that each ~~rule~~procedure change committee meeting is minuted.
- (3) Within 5 business days after a ~~rule~~procedure change committee meeting, the ~~rule~~procedure change committee chairperson must circulate the draft minutes of the proceeding to the other members of the ~~rule~~procedure change committee for consideration and approval.
- (4) ~~REMC~~oAEMO must ensure that the minutes of each ~~rule~~procedure change committee meeting are made available to, and accessible by, each ~~rule~~procedure change committee member for 7 years after the date of the meeting.
- (5) ~~REMC~~oAEMO must provide all reasonable administrative assistance requested by the ~~rule~~procedure change committee.
- (6) The ~~rule~~procedure change committee may adopt such ~~procedures~~procedures as it sees fit for conducting meetings of the ~~rule~~procedure change committee.

389. Limitation of Liability

To the extent permitted by law, a ~~rule~~procedure change committee member is not liable for any loss or damage suffered or incurred by any person as a consequence of any act or omission of the ~~rule~~procedure change committee unless the ~~rule~~procedure change committee, or its members, as the case may be:

- (a) do not act in good faith under this Part 9.2; or
- (b) act fraudulently.

390. Indemnity

Notwithstanding ~~rule~~clause 389, if a ~~rule~~procedure change committee member is liable to pay any amount for loss or damage suffered or incurred by a person as a consequence of any act or omission of the ~~rule~~procedure change committee, ~~REMC~~oAEMO must indemnify the ~~rule~~procedure change committee member:

- (a) for the full amount of loss or damage; and
- (b) for any costs and expenses incurred by the member in defending related proceedings,

unless the liability arose out of the member's:

- (c) conduct involving a lack of good faith under this Part 9.2; or
- (d) fraud.

391. REMCoAEMO must accept or reject ruleprocedure change request

- (1) As soon as practicable and in any event within 5 *business days* after receipt of a *ruleprocedure change request*, REMCoAEMO must either accept or reject the request.
- (2) REMCoAEMO must:
 - (a) reject a *ruleprocedure change request*:
 - (i) if the person lodging the *ruleprocedure change request* is not a *participant* or an *interested person*; or
 - (ii) if REMCoAEMO determines that the *ruleprocedure change request* is frivolous, vexatious, or not lodged in good faith; and
 - (b) as soon as practicable after rejecting a *ruleprocedure change request*:
 - (i) *notify* the *proponent* that the request has been rejected; and
 - (ii) provide the reason why the request was rejected.
- (3) REMCoAEMO must accept a *ruleprocedure change request* if it is not rejected under *ruleclause* 391(2).

392. Appeal to REMCoAEMO

- (1) Within 5 *business days* after REMCoAEMO's notification under *ruleclause* 391(2)(b)(i), the *proponent* may appeal REMCoAEMO's decision by submitting to REMCoAEMO the reasons why the proponent disagrees with AEMO's decision:
 - ~~(a) — a copy of the proponent's original rule change request; and~~
 - ~~(b) — a copy of REMCo's notification and reasons under rule 391(2); and~~
 - ~~(c) — the reasons why the proponent disagrees with REMCo's decision.~~
- (2) REMCoAEMO may determine such *proceduresguidelines* as are necessary to consider this appeal, but in any event must ensure that the appeal is considered and a decision reached whether or not to accept the *ruleprocedure change request* within 20 *business days* of receipt of the appeal.
- (3) If REMCoAEMO determines under *ruleclause* 392(2) that REMCoAEMO was correct in the first instance to reject the *ruleprocedure change request*, then REMCoAEMO must *notify* the *proponent* of the resolution.

393. If ruleprocedure change request is accepted

If REMCoAEMO accepts a *ruleprocedure change request* under *ruleclause* 391(3) or *ruleclause* 392(2), REMCoAEMO must:

- (a) *notify* the *proponent* that it has accepted the *ruleprocedure change request*; and

- (b) within 20 *business days* after notification under [rule clause 393\(a\)](#), complete a [rule procedure change outline](#) and, if [REMCo AEMO](#) considers that the [rule procedure change](#) is likely to have a low or high impact, a draft *impact and implementation report*; and
- (c) provide the [rule procedure change outline](#) and draft *impact and implementation report* (if there is one) to the ~~rule procedure change~~ committee.

394. Initial assessment by [rule procedure change](#) committee

- (1) Within 20 *business days* after it receives a [rule procedure change outline](#) and draft *impact and implementation report* (if there is one) under [rule clause 393\(c\)](#), the [rule procedure change committee](#) must meet to consider the related [rule procedure change request](#).
- (2) The [rule procedure change committee](#) must:
 - (a) ~~reject a rule change request if the rule change committee considers that the proposed rule change~~[recommend to AEMO that a procedure change request be rejected if the procedure change committee considers that the proposed procedure change:](#)
 - (i) is impractical to implement; or
 - (ii) is not cost effective for one or more of [REMCo AEMO](#), *participants*, *pipeline operators* and *prescribed persons* (as applicable) to implement; or
 - (iii) would have an adverse effect on the retail gas market; or
 - (iv) would not comply with the *law*; or
 - (v) be otherwise inconsistent with the objectives in [rule clause 386](#); and
 - ~~(b) within 5 days after rejecting a rule change request:~~
 - ~~(i) notify the proponent and REMCo that it has rejected the rule change request; and~~
 - ~~(ii) provide the reason why the rule change request was rejected.~~
- (3) If the [rule procedure change committee](#) determines that the [rule procedure change outline](#) and, if available, draft *impact and implementation report* does not contain sufficient information to determine the impact of the proposed [rule procedure change](#), the [rule procedure change committee](#) may notify [REMCo AEMO](#) of the additional information it requires, in which case:
 - (a) within 10 *business days* after the notification, [REMCo AEMO](#) must provide the [rule procedure change committee](#) with the information; and
 - (b) the [rule procedure change committee](#) must meet again under [rule clause 394\(1\)](#).

- (4) The ~~rule~~procedure change committee must recommend to AEMO to accept a ~~rule~~procedure change request if the procedure change committee does not recommend to reject it under clause ~~it is not rejected under rule~~ 394(2).
- (5) Within 20 business days after receiving a recommendation from the procedure change committee under clause 394(2)(a) or clause 394(4), AEMO must decide to either accept or reject the procedure change request.
- (6) Within 5 business days after rejecting a procedure change request, AEMO must:
 - (a) notify the proponent that it has rejected the procedure change request; and
 - (b) provide the reason why the procedure change request was rejected.

395. Appeal to ~~REMC~~AEMO

- (1) Within 20 business days after notification under ~~rule~~clause 394(6)–394(2)(b), the proponent may appeal ~~the rule change committee's~~AEMO's decision by submitting to ~~REMC~~AEMO the reasons why the proponent disagrees with AEMO's decision:
 - ~~(a) — a copy of the proponent's original rule change request; and~~
 - ~~(b) — a copy of the rule change committee's notification and reasons under rule 394(2)(b); and~~
 - ~~(c) — the reasons why the proponent disagrees with the rule change committee's decision.~~
- (2) ~~REMC~~AEMO may determine such ~~procedures~~guidelines as are necessary to consider this appeal, but in any event must ensure that the appeal is considered and a decision reached whether or not to accept the ~~rule~~procedure change request within 20 business days of receipt of the appeal.
- (3) If ~~REMC~~AEMO determines under ~~rule~~clause 395(2) that the ~~rule change committee~~AEMO was correct in the first instance to reject the ~~rule~~procedure change request, then ~~REMC~~AEMO must notify the proponent of the resolution.
- (4) If ~~REMC~~AEMO determines under ~~rule~~clause 395(2) that the ~~rule change committee~~AEMO should accept the ~~rule~~procedure change request, it must notify the proponent of the resolution:
 - ~~(a) — the proponent; and~~
 - ~~(b) — the rule change committee,~~
of the resolution.
- ~~(5) — Upon notification under rule 395(4)(b), the rule change committee must accept the rule change request.~~

396. If ~~the rule change committee~~ AEMO accepts the rule procedure change request

- (1) If ~~AEMO the rule change committee~~ accepts a rule procedure change request under ~~rule clause 394(5)~~ 394(5) or 395(4), ~~it the procedure change committee~~ must determine (for the purpose of making a recommendation to AEMO) whether the proposed rule procedure change is likely to have a non-substantial impact, ~~or a~~ low impact, or high impact on the affected parties under guidelines published by ~~REMC~~ AEMO under rule clause 396(3) (if any).
- (2) Without limiting the rule procedure change committee's discretion under rule clause 396(1) or AEMO's discretion under clause 396(5):
 - (a) a change to the rules procedures that is being considered has a non-substantial impact if it has no effect on operations of ~~REMC~~ AEMO, participants, interested persons or prescribed persons and merely corrects typographical errors, grammatical errors, cross-referencing errors or other similar trivial defects in the rules procedures;
 - (b) a change to the rules procedures that is being considered has a low impact if it:
 - (i) does not have a material impact on the information technology systems of ~~REMC~~ AEMO, participants, pipeline operators or prescribed persons; or
 - (ii) does not materially alter consumer protection mechanisms under the rules procedures; or
 - (iii) does not have a material commercial impact on ~~REMC~~ AEMO, participants, pipeline operators or prescribed persons; and
 - (c) a rule procedure change that is being considered is classified as having a high impact if it is not classified as having a non-substantial impact or a low impact.
- (3) ~~REMC~~ AEMO may publish guidelines from time to time for the rule procedure change committee to use in ~~determining~~ assessing the impact of a proposed rule procedure change.
- (4) The procedure change committee must inform AEMO of its recommendation under clause 396(1) within 20 business days after AEMO has accepted a procedure change request.
- (5) Within 20 business days after receiving a recommendation from the procedure change committee under clause 396(4), AEMO must determine (in its absolute discretion) whether the proposed procedure change is likely to have a non-substantial impact, low impact, or high impact on the affected parties.

396A. Non-Substantial rule procedure change

If AEMO determines under clause 396(5) that the change to the procedures that is being considered has a non-substantial impact, AEMO must decide whether to submit the non-substantial procedure change to the approving body where the approval to a

procedure change is required by law. AEMO will determine the format that must be used for the submission.

~~If the members of the rule change committee unanimously agree under rule 396(1) that the change to the rules that is being considered has a non-substantial impact, the rule change committee must recommend that REMCo submit the non-substantial rule change to the approving body where the approval to a rule change is required by law. REMCo will determine the format that the rule change committee must use for the recommendations.~~

397. Low impact ~~rule~~procedure change

If AEMO determines under clause 396(5) that the change to the procedure that is being considered is likely to have a low impact, AEMO must develop an impact and implementation report within 5 business days after making the determination.~~If the members of the rule change committee unanimously determine under rule 396(1) that the change to the rules that is being considered is likely to have a low impact, the rule change committee must advise REMCo of that determination and submit an impact and implementation report to REMCo within 2 business days after making the determination.~~

398. High impact ~~rule~~procedure change

- (1) If AEMO determines under clause 396(5) that the change to the procedures that is being considered would not have a non-substantial or a low-impact, or if an objection made under clause 399A(4)(a) has specified that a procedure change is high impact, AEMO must develop an impact and implementation report.~~If the rule change committee determines under rule 396(1) that the change to the rules that is being considered would not have a non-substantial impact or a low impact, or if an objection made under rule 399A(4)(a) has specified that a rule change is high impact, it must notify REMCo of the determination and submit an impact and implementation report to REMCo.~~
- (2) After ~~notification-making a determination~~ under ~~rule~~clause 398(1) or ~~rule~~receiving a notification under clause 399A(4)(a), ~~REMCo~~AEMO must:
 - (a) notify each participant, pipeline operator, prescribed person and interested person that:
 - (i) ~~REMCo~~AEMO has received a ~~rule~~procedure change request containing a proposed ~~rule~~procedure change that ~~AEMO the rule change committee~~ has determined would not have a non-substantial or low impact; and
 - (ii) ~~REMCo~~AEMO seeks submissions on the proposed ~~rule~~procedure change; and
 - (b) provide each participant, pipeline operator, prescribed person and interested person with:
 - (i) the ~~proposed rule~~procedure change request or a description of the ~~proposed rule~~procedure change request; and

- (ii) information as to where they can access an electronic copy of the ~~rule~~procedure change request and the *impact and implementation report*; and
 - (iii) instructions on how to make a submission on the ~~proposed rule~~procedure change to ~~REMC~~CoAEMO; and
 - (iv) the closing date for submissions, which must be at least 10 *business days* after ~~notification~~a determination under clause 296(5) under rule 398(1).
- (3) Each *participant, pipeline operator, prescribed person and interested person* may lodge a submission on the ~~proposed rule~~procedure change request using the ~~procedures~~instructions notified under ~~rule~~clause 398(2)(b)(iii).
- ~~(4) Within 10 business days after the closing date notified under rule 398(2)(b)(iv), REMC must provide the submissions received under rule 398(3) to the rule change committee.~~
- ~~(5)~~(4) Within 20 *business days* after receipt of the submissions under ~~rule 398(4), clause 398(3), AEMO~~ the rule change committee must ~~meet to~~ consider the submissions.
- ~~(6)~~(5) Within 10 *business days* after considering the submissions under ~~rule 398(5), clause 398(4), AEMO~~ the rule change committee must make a ~~recommendation to~~ determination as to whether the change to the procedures that is being considered would not have a non-substantial or a low impact ~~REMC~~Co.

399. Consideration of recommended ~~rule~~procedure change by ~~REMC~~CoAEMO

- (1) As soon as practicable and in any event within 20 *business days* after ~~receipt of making~~ a recommended ~~rule~~procedure change under ~~rule~~clause 396A, ~~or rule 397 or 398(5)~~ rule 398(6), ~~REMC~~CoAEMO must consider the recommended ~~rule~~procedure change and determine whether to:
 - (a) endorse the recommended ~~rule~~procedure change; or
 - (b) reject the recommended ~~rule~~procedure change.
- (2) If a recommended ~~rule~~procedure change relates to ~~rule~~clause 362A then ~~REMC~~CoAEMO must not endorse the recommended ~~rule~~procedure change under ~~rule~~clause 399(1)(a) unless at least 80% of the votes cast at a meeting of the ~~REMC~~CoAEMO Board support the endorsement of the recommended ~~rule~~procedure change.
- (3) If ~~REMC~~CoAEMO decides to reject a ~~recommended rule~~procedure change under ~~rule~~clause 399(1)(b), ~~REMC~~CoAEMO must *notify*:
 - (a) the proponent; and
 - (b) each person *who* lodged a submission under ~~rule~~clause 398(3) (if applicable); and

(c) each *interested person*,

that the *recommended rule-procedure change* has been rejected and provide the reason why the *recommended rule-procedure change* was rejected.

399A. REMCoAEMO endorses low impact ruleprocedure change

- (1) If ~~REMCo~~AEMO endorses a low impact *recommended ruleprocedure change* under ~~ruleclause~~ 399(1)(a), then within 5 *business days* after the decision, ~~REMCo~~AEMO must:
 - (a) notify each *participant, pipeline operator, prescribed person and interested person* that:
 - (i) ~~REMCo~~AEMO has received a *ruleprocedure change request* containing a *proposed ruleprocedure change* that ~~AEMO~~the *rule change committee* has determined to have a low impact; and
 - (ii) ~~REMCo~~AEMO seeks submissions on the low impact *ruleprocedure change*; and
 - (b) provide each *participant, pipeline operator, prescribed person and interested person* with:
 - (i) the *proposed ruleprocedure change*; and
 - (ii) information as to where they can access an electronic copy of the *impact and implementation report*; and
 - (iii) instructions on how to make an objection on the low impact *ruleprocedure change* to ~~REMCo~~AEMO; and
 - (c) the date of the end of the objection period, which must be at least 10 *business days* after the notification under ~~ruleclause~~ 399A(1)(a).
- (2) If a *participant, pipeline operator, prescribed person or interested person* wishes to object to a low impact *ruleprocedure change* it must notify ~~REMCo~~AEMO of its objection by the end of the objection period. A submission under this ~~ruleclause~~ 399A(2) must include the reasons for the objection and specify whether the submitter considers the low impact *ruleprocedure change* to be non-substantial, low impact or high impact and include reasons for this classification.
- (3) ~~If by the end of the objection period AEMO has not received any objection under clause 399A(2), then AEMO must treat the procedure change as a low impact procedure change as if it were a determination made under clause 396A. If by the end of the objection period REMCo has not received any objection under rule 399A(2), then the rule change committee must recommend to REMCo that it treat the rule change as a low impact rule change, and REMCo must treat that recommendation as if it were made under rule 396A.~~

- (4) If by the end of the objection period ~~REMC~~AEMO has received any objection under ~~rule~~clause 399A(2), then ~~REMC~~AEMO must notify *participants, pipeline operators, prescribed persons and interested persons* of the objection and that:
- (a) if an objection made under ~~rule~~clause 399A(2) has specified that the recommended ~~rule~~procedure change is considered to be high impact, the ~~rule~~procedure change will be subject to the high impact ~~rule~~procedure change process set out in ~~rules~~clauses 398 and 399; or
 - (b) if an objection made under ~~rule~~clause 399A(2) has specified that the recommended ~~rule~~procedure change is considered non-substantial or low impact (and so long as there are no other objections that require the ~~rule~~procedure change to be made subject to the high impact ~~rule~~procedure change process in ~~rules~~clauses 398 and 399), ~~REMC~~AEMO will provide the objection to the ~~rule~~procedure change committee for it to consider.
- (5) As soon as practicable after receiving the objection information under ~~rule~~clause 399A(4)(b), the ~~rule~~procedure change committee must determine:
- (a) to recommend the ~~rule~~procedure change to ~~REMC~~AEMO for determination under ~~rule~~clause 400A(1) despite the objection; or
 - (b) to recommend to AEMO that the procedure change be abandoned by AEMO under clause 400A(1); ~~to abandon the rule change; or~~
 - (c) to recommend an *alternative amendment* having regard to the objections received under ~~rule~~clause 399A(2).
- (6) After receiving a recommendation from the procedure change committee under clause 399(5), AEMO must make a determination:
- (a) under clause 400A(1) despite the objection; or
 - (b) that the procedure change be abandoned by AEMO under clause 400A(1); or
 - (c) that an alternative amendment be made having regard to the objections received under clause 399A(2).
- ~~(6)(7)~~ (7) If ~~AEMO the rule change committee~~ decides to abandon the ~~rule~~procedure change under ~~rule~~clause 399A(5)(b), it must ~~notify REMC of its reasons. REMC must then~~ notify *participants, pipeline operators, prescribed persons and interested persons* that the ~~rule~~procedure change has been abandoned and the reasons for the abandonment.
- ~~(7)(8)~~ (8) If ~~the rule change committee decides to recommend~~ AEMO makes a determination to make an *alternative amendment* under ~~rule~~clause 399A(5)(c) then:
- (a) if the *alternative amendment* does not differ materially from the recommended ~~rule~~procedure change, ~~the rule change committee~~AEMO will complete a report, in a format determined by ~~REMC~~AEMO from time to time, recommending the ~~rule~~procedure change for approval by the *approving body*

where the *approving body's* approval ~~to for~~ a rule procedure change is required by law; or

- (b) if the *alternative amendment* differs materially from the *recommended rule procedure* change, ~~the rule change committee must advise REMCo and REMCo must treat that advice~~ AEMO must make a determination as if it were ~~given~~ made under rule clause 397.

400. REMCo AEMO endorses high impact rule procedure change

- (1) If REMCo AEMO endorses a high impact *recommended rule procedure* change under rule clause 399(1)(a), then within 5 *business days* after the decision, REMCo AEMO must:
- (a) *notify* each *participant*, *pipeline operator*, prescribed person and *interested person* that REMCo AEMO has endorsed a *recommended rule procedure* change and is seeking submissions on the *endorsed rule procedure* change; and
- (b) provide each *participant*, *pipeline operator*, *prescribed person* and *interested person* with the following information:
- (i) a brief description of the *endorsed rule procedure* change and an explanation of the reasons for any material differences between the *proposed rule procedure* change and the *endorsed rule procedure* change; and
- (ii) information as to where *they* can access an electronic copy of the *rule procedure* change request, the *impact and implementation report*, and the *endorsed rule procedure* change; and
- (iii) instructions on how to make a submission on the *endorsed rule procedure* change to REMCo AEMO; and
- (iv) the closing date for submissions, which must be at least 20 *business days* after notification under rule clause 400(1)(a).
- (2) Each *participant*, *pipeline operator*, *prescribed person* and *interested person* may lodge a submission on the *endorsed rule procedure* change using the ~~procedures~~ procedures notified under rule clause 400(1)(b)(iii).
- (3) Within 10 *business days* after the closing date notified under rule clause 400(1)(b)(iv) or 400(56)(b)(iv), REMCo AEMO must provide the submissions received under rule clause 400(2) or 400(7) ~~400(6)~~—respectively to the *rule procedure* change committee.
- (4) If the submissions provided under rule clause 400(3) contain an objection to the *endorsed rule procedure* change, the *rule procedure* change committee must either:
- (a) complete a *recommendation report*, in a format determined by REMCo AEMO from time to time, recommending the submission of the *endorsed rule procedure* change for approval by the *approving body* where the

approving body's approval to an endorsed ~~rule~~procedure change is required by law, despite the objection, and provide the report to ~~REMC~~AEMO; or

- (b) recommend to AEMO to amend the endorsed ~~rule~~procedure change to address the objection and either:

(i) if the amendment to the endorsed ~~rule~~procedure change is not material, provide ~~REMC~~AEMO with a recommendation report, in a format determined by ~~REMC~~AEMO from time to time, ~~on the an~~ outline of the alternative amendment and how it differs from the endorsed ~~rule~~procedure change, and recommending the submission of the alternative amendment for approval by the approving body where the approving body's approval to a ~~rule~~procedure change is required by law; or

(ii) submit the alternative amendment to ~~REMC~~AEMO; or

- (c) recommend to AEMO that the endorsed procedure change be abandoned by AEMO under clause 400A(1), and the reason why is should be abandoned.~~abandon the endorsed rule change and notify:~~

~~(i) — the proponent; and~~

~~(ii) — each person who lodged a submission under rule 400(2); and~~

~~(iii) — each interested party;~~

~~that the endorsed rule change has been abandoned and the reason why the endorsed rule change has been abandoned.~~

- (5) After receiving a recommendation from the procedure change committee under clause 400(4), AEMO must make a determination:

(a) under clause 400A(1) despite the objection; or

(b) that the procedure change be abandoned by AEMO under clause 400A(1); or

(c) that an alternative amendment be made having regard to the objections received under clause 400(3).

- (6) If ~~REMC~~AEMO decides to make ~~receives~~to make an alternative amendment under ~~rule~~clause 400(5)(c)(4)(b)(ii) or ~~rule~~clause 400A(1)(b), then within 5 business days after ~~the receipt of~~deciding to make the alternative amendment, ~~REMC~~AEMO must:

(a) notify each participant, pipeline operator, prescribed person and interested person that ~~REMC~~AEMO has ~~received~~decided to make an alternative amendment for an endorsed ~~rule~~procedure change and is seeking submissions on the alternative amendment; and

(b) provide each participant, pipeline operator, prescribed person, and interested person with the following information:

- (i) the *alternative amendment* and an explanation of the reasons for any material differences between the *alternative amendment* and the endorsed ~~rule~~ procedure change; and
 - (ii) information as to where they can access an electronic copy of the ~~rule~~ procedure change request, the *impact and implementation report*, and the endorsed ~~rule~~ procedure change; and
 - (iii) instructions on how to make a submission on the *alternative amendment* to ~~REMC~~ AEMO; and
 - (iv) the closing date for submissions, which must be at least 10 *business days* after notification under ~~rule~~ clause 400(~~5~~6)(a).
- (7) Each *participant, pipeline operator, prescribed person* and *interested person* may lodge a submission on the *alternative amendment* using the ~~procedures~~ procedures notified under ~~rule~~ clause 400(5)(b).
- (8) If the submissions provided under ~~rule~~ clause 400(3) does not contain an objection to the endorsed ~~rule~~ procedure change, the ~~rule~~ procedure change committee must:
- (a) complete a report, in a format determined by ~~REMC~~ AEMO from time to time, recommending the submission of the endorsed ~~rule~~ procedure change for approval by the *approving body* where the *approving body's* approval to an endorsed ~~rule~~ procedure change is required by *law*; and
 - (b) provide a copy of the report to ~~REMC~~ AEMO.

400A. Submission for approval

- (1) ~~REMC~~ AEMO may determine such ~~procedures~~ guidelines as are necessary to consider a report received under ~~rule~~ clause 396A, ~~399A(4)~~, ~~399(5)(b)~~, 400(4)(a), 400(4)(b)(i), ~~400(4)(c)~~ or ~~400(8)~~ ~~400(7)~~, but in any event must ensure that within 20 *business days* of receipt of the report that the report is considered and a decision reached whether to:
- (a) submit the endorsed ~~rule~~ procedure change for approval by the *approving body* where the *approving body's* approval to an endorsed ~~rule~~ procedure change is required by *law*; or
 - (b) amend the endorsed ~~rule~~ procedure change and endorse it for consultation under ~~rule~~ clause 400(5); or
 - (c) abandon the endorsed ~~rule~~ procedure change.
- (2) If ~~REMC~~ AEMO decides under ~~rule~~ clause 400A(1)(c) ~~not to approve the rule change committee's recommendation~~ abandon the endorsed procedure change, it must notify:
- (a) the *proponent*; and
 - (b) each person who lodged a submission under ~~rule~~ clause 400(2); and

(c) each *interested party*,

that the *endorsed rule procedure change* has been abandoned and the reason why the *endorsed rule procedure change* has been abandoned.

(3) If *REMCeAEMO* decides under *rule clause* 400A(1)(a) to submit the *endorsed rule clause change* for approval by the *approving body* where the *approving body's* approval to an *endorsed rule clause change* is required by law, *REMCeAEMO* must:

(a) notify each *participant*, *pipeline operator*, *prescribed person* and *interested person* that the *endorsed rule procedure change* is being submitted to the *approving body* which notice must include a copy of the submission and the details of the *endorsed rule procedure change*; and

(b) Subject to any requirements of the *approving body* otherwise, provide each *participant*, *pipeline operator*, *prescribed person*, and *interested person* with the following information:

(i) instructions on how to make a submission on the *endorsed procedure change* to the *approving body*, and

(ii) the closing date for submissions, which must be at least 10 business days after the submission of the *endorsed procedures change* under clause 400A(3)(c).

(c) submit the *endorsed rule clause change* to the *approving body*.

401. ~~Approval~~Approval

(1) Upon notification from the *approving body* that an *endorsed rule clause change* has been approved, *REMCeAEMO* must notify all *participants*, *pipeline operators*, *prescribed persons* and *interested persons*.

(2) A *rule clause change* that has been approved by an *approving body* takes effect at a time specified by *REMCeAEMO* or the *approving body*.

402. Amendment of documents relating to the *rules procedures*

(1) *REMCeAEMO* must ensure that as a result of any *endorsed rule clause change* taking effect under *rule clause* 401(2) that any subsidiary document that relates to, or is affected by, the *rules procedures*, is updated and amended accordingly and *REMCeAEMO* must notify all affected persons of any amendment made.

(2) *REMCeAEMO* may determine such *procedures guidelines* and processes necessary to give effect to its obligation in *rule clause* 402(1).

Chapter 10 – General provisions

403. Other laws and instruments

- (1) Where these [rules/procedures](#) and any law, relevant Access Arrangement or licence condition imposed by the *Energy Coordination Act 1994* impose different standards for performance in relation to the same matter, each of [REMC/AEMO](#), a participant, a pipeline operator and a prescribed person must comply with the most stringent standard for performance in respect of that matter.
- (2) Subject to [rule/clause](#) 403(1), if there is any inconsistency between these [rules/procedures](#) and any law, Access Arrangement or licence condition imposed by the *Energy Coordination Act 1994*, then:
 - (a) the law, Access Arrangement or licence condition will prevail to the extent of the inconsistency; and
 - (b) by virtue of [rule/clause](#) 7(1), each of [REMC/AEMO](#), a participant, a pipeline operator and a prescribed person (as applicable) is excused from performing its obligations under these [rules/procedures](#) to the extent of the inconsistency.

404. Continuing performance

- (1) The provisions of these [rules/procedures](#) do not merge with any action performed or document executed by any party for the purposes of performance of these [rules/procedures](#).
- (2) Any representation in these [rules/procedures](#) survives the execution of any document for the purposes of, and continues subsequent to, performance of these [rules/procedures](#).
- (3) Any indemnity agreed by any party under these [rules/procedures](#):
 - (a) constitutes a liability of that party separate and independent from any other liability of that party under these [rules/procedures](#) or any other agreement; and
 - (b) survives and continues subsequent to performance of these [rules/procedures](#).

405. Waiver

Any failure by a party to these [rules/procedures](#) to exercise any right under these [rules/procedures](#) does not operate as a waiver and the single or partial exercise of any right by that party does not preclude any other or further exercise of that or any other right by that party.

406. Remedies

The rights of a party under these [rules/procedures](#) are cumulative and not exclusive of any rights provided by law.

407. Severability

Any provision of these ~~rules~~procedures which is invalid is invalid to that extent, without invalidating or affecting the remaining ~~rules~~procedures~~-or the validity of that rule in any other jurisdiction.~~

Appendix 1 – Coding of gas zones and gate points

{Note: This Appendix 1 may be updated from time to time under [rule clause 15](#).}

—Western Australia

Coding of gas zones

To minimise the number of data fields required in the ~~REMC~~[AEMO](#) registry and the *network operators' databases* the concepts of licence area, *sub-network* and *heating value* zones are all coded using a single 5 digit gas zone code, as follows:

{Note: The following code is split into two components:

- (a) AB – which is held in the existing two digit transmission zone and identifies the *network operator*, licence and *Access Arrangement* coverage; and
- (b) CCD – which is held in the existing three digit *heating value* zone and identifies the *sub-network* and *gas zone* within the *sub-network*.}

ABCCD, where:

A is used to indicate who is the *network operator*. A is an alphanumeric field that can range from 1 to Z:

1 = ATCO Gas Australia

B is used to segregate by licence area and *Access Arrangement* Coverage. B is a numerical field:

ATCO Gas Australia in WA:

1 = AGN MWSW GDS

2 = AGN Kalgoorlie

3 = AGN Albany

CC is a 2 character alphanumeric code used to identify the *sub-network* within a *GDS* and the code varies dependant on the A code:

ATCO Gas Australia in WA (i.e. where A = 1) CC equals as follows:

01 = Geraldton (Nangetty Road)

02 = Eneabba;

03 = Muchea;

- 04 = Deleted
- 05 = Ellenbrook;
- 06 = Metro North;
- 07 = Metro South;
- 08 = Barter Road, Naval Base;
- 09 = Rockingham;
- 10 = Pinjarra;
- 11 = Oakley Road (Pinjarra);
- 12 = Harvey;
- 13 = Kemerton;
- 14 = Clifton Road, Bunbury;
- 15 = Albany (*uncovered sub-network*);
- 16 = Kalgoorlie (*uncovered sub-network*).

D is used to identify a *heating value* zone within a *sub-network*.

Examples:

The Harvey sub network in ATCO Gas Australia MWSW GDS	11121
The Pinjarra sub network in ATCO Gas Australia MWSW GDS	11101
The Kalgoorlie sub network in ATCO Gas Australia Kalgoorlie GDS	12161

Coding of gate points

A *gate point* for a *sub-network* means a point (which may be the same location as a physical gate point), which is designated as the *gate point* under [rule clause 15](#) for the *sub-network* from a *pipeline* and it is the sum of all “*physical gate points*” from that *pipeline* on a *sub-network*.

Examples:

There are 4 gate stations (each with an associated *physical gate point*) supplying gas to the North Metro *sub-network* in ATCO Gas Australia’ MWSW GDS, three from the DBNGP (Harrow St, Della Rd and Caversham) and one from the Parmelia Pipeline at Harrow St. as a result there are two *gate points* one that is the aggregate of the 3 DBNGP physical gate points and one that equates to the Parmelia *physical gate point*.

The same base coding is used to identify *gate points* at which gas is supplied into each *sub-network* from each *pipeline*. The coding used is as follows:

ABCCE, where:

- A** is used to indicate who is the *network operator*. **A** is an alphanumeric field that can range from 1 to Z, refer above for details.
- B** is used to segregate by licence area and *Access Arrangement Coverage*. **B** is a numerical field, refer above for details.
- CC** is a 2 character alphanumeric code used to identify the *sub-network* within a *GDS* and the code varies dependant on the **A** code, refer above for details.
- E** is used to indicate which *pipeline* the gate is connected to. **E** is an alpha field that can range from **A** to **Z**:

- ATCO Gas Australia in WA:
- D = Dampier to Bunbury Natural Gas Pipeline
- P = Parmelia Pipeline
- G = Goldfields Gas Transmission Pipeline
- L = LPG supply

Examples:

The gate point on the DBNGP that supplies the Harvey sub network in ATCO Gas Australia MWSW GDS	1112D
The gate point on the Parmelia that supplies the North Metro sub network in ATCO Gas Australia MWSW GDS	1106P
The gate point on the GGT that supplies the Kalgoorlie sub network in ATCO Gas Australia Kalgoorlie GDS	1216G
The gate point on the Parmelia pipeline that supplies the Perth Metro South sub network in ATCO Gas Network's MWSM GDS.	1107P

~~— There is no Sub-appendix 1.2~~

Appendix 2 – Estimation and Verification Methodology

—Western Australia

Verification methodology for Basic Meters

There are two steps in the ATCO Gas Australia basic meter validation; Validation of the meter reader's data input and a trend check against historical consumption:

Validation of the meter readers data input

The Meter-readers Handheld Unit (MHU) is loaded with upper and lower limits for the index reading. These limits are calculated from the previous index reading and the estimated consumption for the time period since that last meter reading. The estimated consumption is determined using the same algorithms as those used for estimating consumption in case a meter reading cannot be obtained.

The Hi / Lo limits allow for gas usage since the last reading ranging from 50 % to 175 % of estimated usage. If readings exceed this range the meter reader is required to acknowledge the error alert and re-enter the meter index reading. Only if both readings are the same is the meter reader able to store the reading.

Trend check Against Historical data

The Network Management Information System (NMIS) checks that the data uploaded from the MHU results in gas usage that is within an expected range. This range is currently set as between 0 to 2000 % of the estimated usage. Nil consumption is allowed due to the high incidence of heating only consumers. An operator is alerted if the meter index reading is outside this range and has the option to:

- Use the meter index reading received if it seems reasonable based on previous billing history; or
- Use a system generated estimate; or
- Enter a reading. The latter is typically used when it is clear that the meter reader has entered the wrong number of digits, etc.

Verification methodology for Interval Meters

ATCO Gas Australia uses three types of verification checks:

- **Device checks** – where data from individual logging devices is compared with configurable limits.
- **Primary to Secondary checks** – where data from different devices are compared. (This range of checks is used on sites where dual logging devices are installed)
- **Trend checks** – Hourly, daily and 7 daily historical comparisons.

The following checks describe the checks done for a more complex *interval-metered* site with multiple logging devices recording V_{un} , P , T and calculating V_{cr} and Z . Not all interval meter sites are so elaborated they range from:

- **Fixed factor sites**

These sites have a single datalogger recording the pulses from the flow meter pulse head and computing V_{cr} using fixed values for pressure and temperature

- **Measured P & T with single logger**

These sites have a single data logger that records the pulses from the flow meter pulse head, the output from the pressure and temperature transmitters and calculates V_{cr} from this data.

- **Measured P & T with dual logger**

These sites have a two dataloggers that each record the pulses from the flow meter pulse head, the output from the pressure and temperature transmitters and calculates V_{cr} from this data. This enables the primary to secondary checks

- **Measured P & T with flow computer**

These sites have a single flow computer that records the pulses from the flow meter pulse head, the output from the pressure and temperature transmitters and calculates V_{cr} from this data whilst taking account of compressibility. The latter is calculated using the measured pressure and temperature inputs and stored gas quality parameters.

Thus only those checks that are feasible for the individual site are applied, i.e. there is no trend check for pressure on a fixed factor site, nor is there a Primary to Secondary checks on single device sites.

Device checks

A range of checks are conducted on hourly data comparing V_{un} (volume uncorrected), V_{cr} (volume corrected for pressure and temperature), pressure and temperature values with site specific upper and lower limits.

Also included are checks to ensure the integrity of the incoming data ~~eg~~^{e.g.} $V_{cr} > 0$ when $V_{un} = 0$. V_{cr} is calculated based on the hourly V_{un} , pressure and temperature and compared against the V_{cr} value supplied by the logging device.

A further inclusion is a device health check, we establish that there are no device status alarms and that battery voltage is at a satisfactory level.

Primary to Secondary checks

Compares the incoming values for V_{un} , V_{cr} , pressure and temperature on sites that have dual logging devices between the two devices. This comparison identifies logger failures ranging from input card drift to full logger failure.

Trend checks

A range of trend checks is conducted on hourly and daily data by comparing the current data with historical data. This is possible as almost all meter sites have a fixed delivery pressure and a fairly constant delivery temperature when the meter is flowing. The aim of the check is to identify issues such as transmitter drift and flow meter contamination.

Three categories of checks are used:

- **Intra Day Checks**

Compares hourly temperature and pressure for each hour of the gas day during periods of consumption.

- **3 Week Pressure Transmitter Drift Check**

Average daily pressure of current gas day against average daily pressure for current gas day – 21.

- **Gas Consumption Trend**

V_{cr} for the current gas day is compared against the V_{cr} for current gas day – 7.

Pass / Fail Limits

Pass and fail limits are set individually per site in ATCO Gas Australia's Gas Distribution Billing Data Verification (GDBDV) system, thus enabling effectual checks rather than having to adjust the pass / fail window to the lowest common denominator.

When GDBDV determines that a check fail the operator is alerted. Different alarm types exist and they range from:

- **Alert only** where the data is accepted automatically and the operator investigates the issue at a later stage and decides if corrective action is required.
- **Alert and operator release.** The Operator views the data and decides if it is accepted, amends the data or instructs the system to generate an estimate.
- **System Generate Estimate.** Where the system generates an estimate without seeking the operator's input, this typically occurs when there has been no data received for a site.

Estimation of Data for Basic Meters

Type 1 Estimation Methodology ("Same Time Last Year")

ATCO Gas Australia uses this estimation methodology where the distribution supply point in respect of which the estimated value is to be calculated has at least 12 months consumption history. Where consumption is to be estimated the process is as follows:

Step 1. Calculate the mid-date of the estimation period.

Get the Start Date for the estimation period based on the most recent verified meter read.

$$\text{Mid Date} = \text{Start Date} + \frac{1}{2} (\text{Estimation Date} - \text{Start Date})$$

{Example: If the date that consumption is to be estimated is for 31 Mar 2003 and the most recent verified meter read is 31 Dec 2002 then the mid period date is 14 Feb 2003.}

$$\text{Mid Date} = 31 \text{ Dec } 2002 + \frac{1}{2} (31 \text{ Mar } 2003 - 31 \text{ Dec } 2002) = 14 \text{ Feb } 2003\}$$

Step 2. Retrieve the same time last year meter reading interval

Retrieve the verified meter read with a Start Date prior to the Mid Date in the previous year and with an End Date on or after the Mid Date in the previous year.

{Example: Retrieve same time last year meter reading interval for the site where start date is on or before 14 Feb 2002 and whose end date is on or after 14 Feb 2002.}

Step 3. Calculate the average daily consumption for the same time last year meter reading interval

Divide the consumption (i.e. energy consumption, in MJ) in the same time last year meter reading interval by the number of days in the same time last year meter reading interval to give the average daily consumption. Multiply this average daily consumption by the number of days in the Estimation period.

{Example:}

2002			2003	
Same Time Last Year Reading Interval			Meter Reading Interval to be Estimated	
Verified Start meter read	Verified End meter read		Previous Verified meter read	Estimation date
10 Jan 2002	28 Mar 2002		31 Dec 2002	31 Mar 2003
77 Days Consumption 6000 MJ			90 Days Consumption?	

$$\text{Average Daily Consumption} = 6000/77 = 77.92 \text{ MJ/Day}$$

$$\begin{aligned} &\text{Estimation date (31 Mar 2003)} - \text{Date of previous verified meter read (31 Dec 2002)} \times \text{MJ/Day} \\ &= 90 \times 77.92 = 7012.8 \text{ MJ} \end{aligned}$$

If there is insufficient historical information or the number of days in the same time last year meter reading interval is less than 25 days then use the Type 2 Estimation Methodology.

Type 2A Estimation Methodology ("Same Time Last Period")

ATCO Gas Australia uses this Estimation Methodology where the distribution supply point in respect of which the estimated value is to be calculated has less than 12 months consumption history or where the Type 1 Estimation Methodology could not otherwise be used. Where consumption is to be estimated:

Step 1. Retrieve the same time last period meter reading interval

Retrieve the verified meter read with a meter read date prior to the Start Date of the Estimation period.

{Example: If the date that consumption is to be estimated for is 31 Mar 2003 and the most recent verified meter read is 31 Dec 2002 then search for the next most recent verified meter read.}

Estimation Date	Most recent verified meter read date	Next most recent verified meter read
31 Mar 2003	31 Dec 2002	30 Sep 2002

Therefore the same time last period meter reading interval will be 30 Sep 2002 to 31 Dec 2002.}

Step 2. Calculate the average daily consumption for the same time last period meter reading interval

Divide the consumption (i.e. energy consumption, in MJ) in the same time last period meter reading interval by the number of days in the same time last period meter reading interval to give the average daily consumption. Multiply this average daily consumption by the number of days in the Estimation period.

{Example:}

Same Time Last Period Meter Reading Interval			Meter Reading Interval to be Estimated	
Verified read	Start date	Verified End meter read	Previous Verified meter read	Estimation date
30 Sep 2002		31 Dec 2002	31 Dec 2002	31 Mar 2003
92 Days Consumption 5000 MJ			90 Days Consumption?	

Average Daily Consumption = 5000/92 = 54.35 MJ/Day

*Estimation date (31 Mar 2003) – Date of previous verified meter read (31 Dec 2002) x MJ/Day
= 90 x 54.35 = 4891.3MJ}*

If there is insufficient historical information or the number of days in the same time last period meter reading interval is less than 25 days then use the Type 3 Estimation Methodology.

Type 2B Estimation Methodology ("Average Daily Consumption")

ATCO Gas Australia uses this estimation methodology where the Type 1 or Type 2A Estimation Methodologies could not otherwise be used (e.g. for a newly commission supply point). In this case an Average Daily Consumption figure for the supply point is used to derive an estimate. The Average Daily Consumption figure is an energy value (in MJ) stored against the individual supply point. It is updated on an ongoing basis whenever a verified meter read is received. For new sites, the Average Daily Consumption is defaulted, depending upon the meter type:

- For an AL6 meter: 100 MJ/d
- For an AL12 meter: 550 MJ/d
- Other Basic Meters: Based on a nominal annual usage for that particular consumer

Where consumption is to be estimated, multiply the Average Daily Consumption by the number of days in the Estimation period.

Type 3 Estimation Methodology ("Otherwise Determined")

Where none of the Types of estimates provided in sections 2.1.3.1 to 2.1.3.3 is appropriate, a user and a network operator may agree an estimate.

Estimation of Data for Interval Meters

Dual Device Sites

When there is no validated primary data then an estimate will be based on using a copy of validated secondary data for the same period. If there is no validated secondary data available then an estimate will be made using the "same time last week" approach.

Single Device Sites

When there is no validated data then estimate will be made using the "same time last week" approach.

"Same Time Last Week" Method

The value to be used as a substitution is taken from the same time of day as the interval to be substituted from a "Similar Day" of the previous week (or from within the current week for some weekdays). Public Holidays (PH) are treated as if they were a Sunday. Saturday and Sunday are to be treated normally even if they fall on a PH. The table below is based on the starting point that whilst Monday and Friday consumption ~~patterns~~ [patterns](#) may be different from other weekdays the remaining weekdays are interchangeable. The "Alternate" and

“2nd Alternate” similar days are used when the original “Similar” day is unsuitable because it falls on a PH.

Substitution Day	“Similar Day” Day that is not a PH	“Alternate Similar Day” Day to be used if the “Similar Day” is PH	“2nd Alternate Similar Day” Day if both “Similar Day” and “Alternate Similar Day” are PH
Weekday PH	Most recent Sunday		
Monday, not PH	Most recent Monday not a public holiday		
Tuesday, not PH	Tuesday last week	Wednesday last week	Thursday last week
Wednesday, not PH	Wednesday last week	Tuesday this week	Thursday last week
Thursday, not PH	Thursday last week	Wednesday this week	Tuesday this week
Friday, not PH	Most recent Friday not a public holiday		
Saturday, incl. PH	Most recent Saturday		
Sunday, incl. PH	Most recent Sunday		

Examples: If we fail to get data for a site on Monday the 8th of January 2007. In accordance with the table we would first try Monday 1 January 2007, and as this is a public holiday, we next try Monday 25 December 2006, and as this is also a public holiday we finally end up using the data from Monday 18th December 2006 as estimate for Monday the 8th of January 2007.

Similarly if we need data for Friday the 2nd of May 2003, we first try Friday 25 April, ANZAC day, next try Friday 18 April, Good Friday, and finally use Friday 11th April.

Estimates from estimated data

The data from the “Similar Day” is used irrespective whether it is actual data, or that data itself was an estimate.

Lack of substitute data

If there is no suitable substitute day, for instance due to a lack of historical data on a new site, than the estimate may be determined in any method deemed suitable by the operators at his/her sole discretion.

One method the operator may consider is to derive an estimate using the nominal consumption, as agreed under the haulage contract, for that site and

assuming a 9 hr a day, 7 day a week operation. The nominal annual consumption is divided by 3285 (9 Hrs * 365 Days) to determine the hourly flow to be used as estimate for each of the hours between 8 AM to 5 PM. The remaining hours between 5 PM to 8 AM are estimated as zero.

Anticipated Annual Consumption

Anticipated annual consumption is determined in accordance with the following table by having regard to the size of the meter installed at the delivery point:

Meter Size	Anticipated Annual Consumption
- For an AL6 meter:	100 MJ/d
- For an AL12 meter:	550 MJ/d
- Other Basic Meters:	Based on the nominal annual usage for that particular consumer

~~— There is no Sub-appendix 2.2~~

– REMCoAEMO's Estimation Methodology for Gate Point Data, Net System Load and Interval Meters

Estimation of Data for Interval Meters

In relation to estimates for a time interval of the 'Substitution Day' for net system load and interval meters, REMCoAEMO is to create an estimate of the data using the *like day substitution methodology* by using data from the same time interval of the first available 'Preferred Day' (as detailed in the table below) unless:

- The substitution day was a public holiday, in which case the most recent Sunday is to be used.
- The substitution day was not a public holiday but the 'Preferred Day' is a public holiday, in which case the substitution 'Preferred Day' to be used must be the most recent Preferred Day that is not a public holiday.

Substitution Day	Preferred Day (in order of availability)
Monday	Monday**
Tuesday	Tuesday** Wednesday** Thursday**
Wednesday	Wednesday** Tuesday* Thursday** Tuesday**
Thursday	Thursday** Wednesday* Tuesday* Wednesday** Tuesday**
Friday	Friday**
Saturday	Saturday**
Sunday	Sunday**

Note: * Occurring in the same week as the substitution day.

** Occurring in the week preceding that in which the substitution day occurs.

Examples: If we fail to get data for a site on Monday the 8th of January 2007. In accordance with the table we would first try Monday 1 January 2007, and as this is a public holiday, we next try Monday 25 December 2006, and as this is also a public holiday we finally end up using the data from Monday 18th December 2006 as estimate for Monday the 8th of January 2007.

Similarly if we need data for Friday the 2nd of May 2003, we first try Friday 25 April, ANZAC day, next try Friday 18 April, Good Friday, and finally use Friday 11th April.

Estimation of Data for Gate Point Meters

In relation to estimates for a time interval of the 'Substitution Day' for *gate point metering data*, ~~REMG~~^{AEMO} is to create an estimate of the *gate point metering data* using the *nomination estimation methodology* as outlined below.

The estimate of the *gate point metering data* is to be created by summing the *profiled pipeline nominations* for the relevant *gate point* for the relevant *gas day*

Appendix 3 – Calculation of the MIRN checksum

Calculating the MIRN checksum

Under these ~~rules~~[procedures](#), a one digit checksum is used to reduce the frequency of *MIRN* data entry errors which cause *transfer errors*.

A summary of the algorithm used to create the *MIRN checksum* is:

1. Double the ASCII value of alternate digits within the *MIRN* beginning with the right-most digit.
2. Add the individual digits comprising the products obtained in step 1 to each of the unaffected ASCII value digits in the original number.
3. Find the next highest multiple of 10.
4. The check digit is the value obtained in step 2 subtracted from the value obtained in step 3.

If the result of this subtraction is 10 then the check digit is 0.

Section 0 provides a worked example of the algorithm. Section 0 provides samples.

The *MIRN checksum* is always a numeric character.

The checksum is required for applications where data entry occurs and there is a risk of character transposition, for example from paper to electronic systems or through an interactive telephone service.

Worked example

Summary

The logic of the algorithm can be summarised as:

- (a) Individually process each numeric character in the *MIRN*, starting with the right most.
- (b) For each character:
 - (i) convert the character to its ASCII value; and
 - (ii) for the right most character and each alternate character reading left, double the ASCII value obtained in Step (b)(i) above; and
 - (iii) calculate the sum of the individual digits of the ASCII value to a register holding the total added value for the *MIRN checksum*.
- (c) Subtract the total added value register from the next highest multiple of 10.

If the result is 10, the checksum is 0, otherwise the result is the checksum.

The *MIRN* for the example is **5600012357**

Worked example

Step 1: Initialise variables used by the process

- (d) **Double_This_Char** is a Boolean that indicates whether the character currently being processed should be doubled.
- (e) **Char** is the character currently being processed, as it appears in the *MIRN*.
- (f) **ASCII_Char** is the ASCII value of **Char**.
- (g) **Total** is the running sum of the digits generated by the algorithm.
- (h) **Checksum** is the final result.

At the start of the process:

- **Double_This_Char = True** because the right most character, and then every alternate character, is doubled by the algorithm.
- **Total = 0**
- **Checksum = NULL**

Step 2: Read the *MIRN* character by character, starting with the right most character

Eg.e.g. Char = 7

Step 3: Convert the character to its ASCII value

eg.e.g. ASCII_Char = 55

Step 4: Double the ASCII value if the character is the right most of the *MIRN* or an alternate

Eg.e.g. ASCII_Char = 110

Double_This_Char = Not Double_This_Char

Step 5: Add the individual digits of the ASCII value to the Total

Eg.e.g. Total = Total + 1 + 1 + 0 (i.e. Total = 2)

Performing steps 2 through 5 for each character in our example *MIRN* gives the following results:

Character	Total Before	ASCII Value	Double?	Doubled Value	Total After
7	0	55	Y	110	2 (1+1+0)
5	2	53	N	53	10 (2+5+3)
3	10	51	Y	102	13 (10+1+0+2)
2	13	50	N	50	18 (13+5+0)
1	18	49	Y	98	35 (18+9+8)
0	35	48	N	48	47 (35+4+8)
0	47	48	Y	96	62 (47+9+6)
0	62	48	N	48	74 (62+4+8)
6	74	54	Y	108	78 (74+1+0+8)
5	83	53	N	53	91 (83+5+3)

The value of **Total** after processing the entire *MIRN* is 91.

The next highest multiple of 10 is 100.

Therefore, the *MIRN checksum* = 100 – 91 = 9

Samples

The following checksums were calculated under clause 3.1.2. The *MIRN* and *MIRN checksums* are provided to assist participants in checking their implementation of the *MIRN checksum* algorithm.

<i>MIRN</i>	<i>MIRN checksum</i>	<i>MIRN</i>	<i>MIRN checksum</i>
5500000278	4	5600000278	2
5500003074	5	5600003074	3
5500008129	2	5600008129	0
5500012357	1	5600012357	9
5500023478	0	5600023478	8
5500047359	4	5600047359	2
5500067253	5	5600067253	3

<i>MIRN</i>	<i>MIRN checksum</i>	<i>MIRN</i>	<i>MIRN checksum</i>
5500079467	6	5600079467	4
5500089000	8	5600089000	6
5500099352	6	5600099352	4
5500102781	5	5600102781	3
5500139654	8	5600139654	6
5500200000	4	5600200000	2
5500289367	3	5600289367	1
5500346583	7	5600346583	5

Appendix 4 – Auditor’s deed of undertaking

THIS DEED POLL is made on the _____ day of
20____

RECITALS:

- A. Under Part 7.2 of the Retail Market ~~Rules~~Procedures, the Covenantee has appointed the Covenantor as the independent auditor to audit those Records as are necessary to verify the Covenantee’s compliance with the Retail Market ~~Rules~~Procedures.
- B. During the audit investigations the Covenantor may be provided with or given access to Confidential Information for the purpose of auditing the Covenantee’s compliance with the Retail Market ~~Rules~~Procedures (“**Purpose**”).
- C. The Covenantee requires the Covenantor, and all persons whom each Covenantor proposes, and considers it necessary, to give or make Confidential Information available for the Purpose, to provide confidentiality undertakings in the form of this Deed.
- D. The Covenantor by this Deed now makes the several promises, undertakings, acknowledgments and warranties contained in this Deed, for the benefit of the Covenantee.

OBLIGATIONS

- 1. The Covenantor covenants with the Covenantee as follows:
 - (a) subject to clauses 2 and 3, to keep strictly secret and confidential the Confidential Information and not to divulge or disclose in any manner whatsoever the Confidential Information to any person or use the Confidential Information other than strictly for the Purpose;
 - (b) that any person who has executed a confidentiality undertaking pursuant to clause 2 will not commit or allow to be committed a breach of the confidentiality undertaking signed by it;
 - (c) the Covenantor will not reproduce, copy or transcribe, nor allow to be reproduced, copied or transcribed, in any form the Confidential Information, except where (and to the extent) reasonably necessary for the purpose of assisting the Covenantor for the Purpose;
 - (d) if requested by the Covenantee, the Covenantor will immediately return to the Covenantee, or destroy as the Covenantee directs, all original documents containing any Confidential Information and any copies of those documents and remove from electronic, magnetic or other non-tangible storage all Confidential Information, including in all cases such information combined with any other information, and certify to the Covenantee (in the case of a corporation, signed by a director) that they have discharged its obligations under this clause;

- (e) the Covenantor will ensure that the Confidential Information is stored in any manner or form which the Covenantant may reasonably require from time to time;
 - (f) the Covenantor will maintain an up to date register of all persons to whom the Covenantor has disclosed Confidential Information, and must immediately provide a copy of that register to the Covenantant whenever requested; and
 - (g) the Covenantor will not, without the prior written consent of the Covenantant, make any enquiries of or hold any discussions with any representatives, directors, employees, officers, financiers, customers, suppliers or consultants of the Covenantant in connection with the Confidential Information or the Purpose.
2. The Covenantor may disclose the Confidential Information to an employee, servant, director, adviser, consultant or agent of the Covenantor, who is assisting the Covenantor for the Purpose, and to any employee of such adviser, consultant or agent involved in assisting the Covenantor for the Purpose, but only if that person has been approved in writing by the Covenantant, informed by the Covenantor about the confidential nature of the Confidential Information, is a person to whom it is necessary to disclose the Confidential Information for the purposes of assisting the Covenantor for the Purpose and only if that person has executed and delivered to the Covenantant a deed of confidentiality in substantially the same form as this Deed.
3. The Covenantor undertakes that if it is compelled to disclose any Confidential Information, or otherwise proposes to disclose any of the Confidential Information because of a law or an order of a court or tribunal, the Covenantor:
- (a) will provide prompt notice to the Covenantant of the same in order that the Covenantant may seek a protective order, exemption from production or other appropriate remedy;
 - (b) will only disclose the relevant Confidential Information which there is a legal compulsion to disclose; and
 - (c) will provide the Covenantant with all reasonable assistance and co-operation that they consider necessary to prevent the disclosure of the relevant Confidential Information.
4. The Covenantor acknowledges that the Confidential Information given or made available to the Covenantor contains information that is confidential to the Covenantant and the improper use or disclosure of that Confidential Information may cause loss or damage to the Covenantant. In the event of a breach or threatened breach of the terms of this Deed by the Covenantor, the Covenantant will be entitled to seek an injunction restraining the Covenantor from committing any or further breach of this Deed without having to show or prove any actual damage sustained by the Covenantant.
5. The Covenantor agrees with the Covenantant to indemnify and keep indemnified the Covenantant from and against any loss or expense of any nature whatsoever, including consequential loss, which the Covenantant may suffer or incur arising

directly or indirectly from any breach by the Covenantor or any of the persons referred to in clause 2 of this Deed of the promises, undertakings, acknowledgments and warranties contained in this Deed or in a confidentiality undertaking signed by them.

6. The Covenantor must promptly *notify* the Covenantee if it becomes aware of any suspected or actual unauthorised access, use, copying, disclosure, damage or destruction by any person to whom it has divulged all or any part of the Confidential Information or who becomes aware of the Confidential Information in an unauthorised way and must give the Covenantee all reasonable assistance in connection with any proceedings which the Covenantee may institute against that person for breach of confidence or otherwise.
7. The Covenantor acknowledges and agrees that any Confidential Information provided prior to the execution of this Deed by the Covenantee or by any person acting on its behalf, to the Covenantor, or to an employee, servant, director, adviser, consultant or agent of the Covenantor, or any employee of such adviser, consultant, agent or financier, was imparted in confidence and that any such information shall be subject to the terms of this Deed as if it were disclosed after the date of this Deed.
8. The Covenantor acknowledges that certain of the Confidential Information may comprise information or materials in respect of which the Covenantee, its officers, employees or advisors may at any time wish to claim legal professional privilege and the Covenantor undertakes that it or any person referred to in clause 2 will not at any time take any action, or permit any action to be taken by another person, with the purpose of defeating such claim of legal professional privilege by reason that its disclosure pursuant to this Deed has deprived that Confidential Information of the requisite character of confidentiality.
9. The Covenantor agrees to provide a Report to the Covenantee within 2 months after the end of the year to which the Audit relates, which contains the information and content as set out in [rule clause 359](#) of the Retail Market [Rules Procedures](#).
10. The Covenantor agrees to provide a copy of its Report to any *participant* or Interested Person nominated by the Covenantee.
11. The Covenantor acknowledges and agrees that the right, title, interest and intellectual property in the Report vests in the Covenantee.
12. The Covenantor warrants that it has full legal capacity to provide the several promises, undertakings, acknowledgments and warranties contained in this Deed.
13. The Covenantor warrants that its execution of this Deed is in the proper form and that it believes and intends to be bound by the provisions of this Deed.
14. The Covenantor promises to *notify* the Covenantee immediately if any warranty contained in this Deed ceases to be true and immediately any promise, acknowledgment or undertaking contained in this Deed is breached or is not performed as and when required by this Deed to be performed.
15. The Covenantor acknowledges and agrees that the promises, undertakings, acknowledgements and warranties contained in this Deed are for the benefit of the

Covenantee and may be pleaded by any person entitled to the benefit of this Deed in bar to any claim by the Covenantor or any person claiming through the Covenantor.

16. Unless the context otherwise requires, terms in this Deed have the same meaning as given to them in the Retail Market ~~Rules~~Procedures and in this Deed:

"Audited Person" means each of a *participant* or ~~REMGO~~AEMO (as applicable).

"Confidential Information" means:

- (i) the terms of this Deed and the information contained in it and all other information supplied to or received by the Covenantor in connection with the Retail Market ~~Rules~~Procedures and the Purpose; and
- (ii) Intellectual Property Rights in the information and knowledge referred to in paragraph (i) of this definition,

except for:

- (iii) any information which was in the public domain prior to its disclosure to the Covenantor or, which after such disclosure, enters the public domain through no act or omission of the Covenantor or any of the persons referred to in clause 2 of this Deed; and
- (iv) any information provided to the Covenantor (without restriction as to its use or disclosure by the Covenantor) by a third party who is legally entitled to possess the Confidential Information and provide it to the Covenantor.

"Covenantee" means ~~REMGO~~AEMO or a *participant* (as applicable).

"Covenantor" means *[insert name and address details of the independent auditor that has been appointed]*.

"Intellectual Property Rights" means any rights in relation to any copyright, trade mark, design, drawing, patent, know-how, secret process and any other similar proprietary rights and the rights to the registration of the rights, whether created, formed or arising before or after the date of this Deed.

"person" will be taken to include a body corporate, an unincorporated association, a firm or partnership (whether limited or unlimited) and an authority or organisation notwithstanding that any of them may not be legal persons and includes a person's executors, administrators, heirs, successors and assigns.

"Records" means those records required to be kept by the Covenantee for the purposes of an audit conducted under Part 7.2 of the Retail Market ~~Rules~~Procedures.

"Report" means the report prepared by the Covenantor as a result of undertaking the purpose in accordance with this Deed.

"Retail Market RulesProcedures" means the market ~~rules~~procedures dated [insert date] ~~as approved by the relevant jurisdictions.~~

- (b) A reference to the publishing of information will be taken to include a reference to the dissemination or communication of that information in any manner or form whatsoever.
- (c) A reference to the copying or storage of information will be taken to refer to any form of reproduction, copying or storage, including, but not limited to, reproduction, copying or storage in electronic, electronically assisted, or magnetic form or microform.
- (d) A reference to Confidential Information will include a reference to the whole or part thereof, and will extend to include the Intellectual Property Rights in the Confidential Information.
- (e) Where two or more persons undertake an obligation or give a warranty, they do so, and an obligation or warranty in favour of two or more persons benefits them jointly and severally. A word importing a gender includes every other gender.
- (f) This Deed will be construed and take effect in accordance with the *laws* of the jurisdiction in which the Covenantee resides and the applicable *laws* of the Commonwealth.
- (g) The warranties, promises, acknowledgments and undertakings given in this Deed are continuing.
- (h) Waiver of any right arising from a breach of this Deed or of any right, power, authority, discretion or remedy arising upon default under this Deed must be in writing and signed by the party granting the waiver. A failure or delay in exercise, or partial exercise, of a right arising from a breach of this Deed, or a right, power, authority, discretion or remedy created or arising upon default under this Deed, does not result in a waiver of that right, power, authority, discretion or remedy.
- (i) Any *notice* or consent required to be given under this Deed must be in writing and shall be deemed to have been duly made or given if sent by facsimile clearly marked "urgent", to a person at the destination set out below in respect of that person or such other destination as that person may from time to time provide (and is deemed to have been received on the date of transmission provided the sender's facsimile machine produced a simultaneous report of complete and satisfactory transmission):

(i) **Covenantee:**

[Name of Covenantee]

[Address of Covenantee]

Facsimile No: *[Insert Facsimile Number]*

Attention: *[Insert Name of Person and Title]*

(ii) **Covenantor:**

[Name of Independent Auditor]

[Address of Independent Auditor]

Facsimile No: *[Insert Facsimile Number]*

Attention: *[Insert Name of Person and Title]*

EXECUTED AS A DEED

Signed for and on behalf of)
[])
by)
Position:)
)
in the presence of:)

.....
(Witness signature)

.....
(Witness name)

.....
(Witness address)

Appendix 5 – Calculations, Rounding and Units

Rounding

Where a *participant, pipeline operator or prescribed persons* is required to calculate a value under these ~~rules~~ [procedures](#), the calculation must not truncate any value.

A derived value has accuracy equal to the accuracy of the least accurate input variable to the calculation.

For example:

For a value derived from the product of two variables, one accurate to two decimal places and one accurate to three decimal places, the product will initially be set to three decimal places to allow for rounding to a final precision of two decimal places.

Rounding will only be applied to the final value derived in the calculation process. If the last digit is a 5, the value is rounded up.

For example:

ROUND	2.14	to one decimal place	equals 2.1
ROUND	2.15	to one decimal place	equals 2.2
ROUND	2.159	to one decimal place	equals 2.2
ROUND	2.149	to two decimal places	equals 2.15
ROUND	1.485	to two decimal places	equals 1.49

Calculations

In all cases:

$$TE = PCF \times HV \times V$$

where:

TE = total energy;

PCF = *pressure correction factor*;

HV = Heating Value; and

V = volume.

Example 1 Total Energy Calculation:

PCF of 1.0989

HV of 39.81

Volume of 200

$$\begin{aligned}\text{Total energy} &= 1.0989 * 39.81 * 200 \\ &= 8749.4418\end{aligned}$$

Rounded to 8749

Example 2 Total Energy Calculation:

PCF of 1.0989

HV of 41.89

Volume of 200

$$\begin{aligned}\text{Total energy} &= 1.0989 * 41.89 * 200 \\ &= 9206.5842\end{aligned}$$

Rounded to 9207

Example 3 Total Energy Calculation:

PCF of 1.0989

HV of 38.55

Volume 345 hundred cubic feet

$$\begin{aligned}\text{Total energy} &= 1.0989 * 38.55 * (345 * 2.832) \\ &= 41389.94982\end{aligned}$$

Rounded to 41390

Units

The total energy calculated by network operators will be expressed in megajoules for all meters.

Appendix 6– Requirements for explicit informed consent

Requirements for explicit informed consent

A *customer's* consent will be *explicit informed consent* if the consent is given:

- (a) expressly; and
- (b) ~~subject to clause 0,~~orally or in writing; and
- (c) after the *user* has in plain language appropriate to that *customer* disclosed all matters materially relevant to the giving of the consent, including each specific purpose for which the consent will be used; and
- (d) by a person competent or authorised to give it on the *customer's* behalf.

~~Small use customer's consent may be given orally~~

~~A small use customer's explicit informed consent may be given orally.~~

Records of explicit informed consent

A *user* must:

- (e) create a record of each *explicit informed consent* received.
- (f) *maintain* the record for a period of at least 2 years from the date of the *explicit informed consent*.
- (g) provide a copy of the record to ~~REMC~~REMC~~Co~~AEMO within 10 *business days* after ~~REMC~~REMC~~Co~~AEMO requests it.

A record under clause ~~6~~(e) must:

- (h) be in a form capable of examination by ~~REMC~~REMC~~Co~~AEMO under ~~rule~~rule ~~72(5)~~clause 75 and of audit under ~~rule~~rule ~~clause~~clause 350;
- (i) include such information as enables ~~REMC~~REMC~~Co~~AEMO or the auditor to verify the *user's* compliance with ~~rules~~rules ~~clauses~~clauses 55A, 72(1), 72(4), 79(1), 79(4), 166A and 349 and this Appendix 6.

Appendix 7 – Swing Service Provision Umbrella Deed (SSPUD)

Dated [.....]

PARTIES

1. [Insert name of SSP]; and
2. The *users* specified in the Schedule to this deed as added to from time to time under clause 5.3; and
3. REMCoAEMO.

BACKGROUND

- A. REMCoAEMO and the *users* are participants in the gas retail market governed by the REMCoRetail Market Rules-Procedures (“rulesprocedures”).
- B. Under the rulesprocedures, *users* from time to time must acquire *swing service* for a *gate point*.
- C. Under the rulesprocedures, REMCoAEMO administers two *bid stacks* for each *gate point*, one each for the provision and acquisition of *park swing service* and *loan swing service*.
- D. The SSP may wish to supply *swing service* by bidding into a *bid stack*.
- E. This deed governs the SSP’s participation in that process.
- F. This deed applies in respect of each *gate point* at which REMCoAEMO administers a *bid stack*.
- G. Under the rulesprocedures, after applying the *bid stack* processes for a *gas day*, REMCoAEMO issues *contract notes* which specify the *gate point*, the *user’s* SSA (which is the amount of *park swing service* or *loan swing service* provided to the *user*), the *swing service provider* which is providing it, the *user* which is receiving it, the MCP(TSS(BS)) or MCP(ANUSA) and the FSS (which is the amount payable by the *user* to the *swing service provider*).
- H. This deed governs the effect of a *contract note* which specifies the SSP as providing *swing service*, and sets out the rights and obligations of the SSP and the *contracted user* under the *swing service contract* which arises when the *contract note* is issued.

THE PARTIES AGREE:

1. INTERPRETATION

1.1 Definitions

Unless the context otherwise requires, the following definitions apply in this deed and a *swing service contract*:

“AEMO” has the meaning given to it in the [procedures](#).

“bid stack” means a bid stack operated by ~~REMC~~[AEMO](#) under the ~~rules~~[procedures](#).

“business day” has the meaning given to it in the ~~rules~~[procedures](#).

“contract note” means a notice given to the SSP and the *user* by ~~REMC~~[AEMO](#) under ~~rule~~[clause](#) 296.

“contracted charge” means the total charge payable specified in a *contract note*, which is the FSS.

“contracted gate point” means the *gate point* between the *pipeline* specified in a *contract note* and the *sub-network* specified in the *contract note*.

“contracted service” means the amount of *park swing service* or *loan swing service*, as applicable, specified in the *contract note*, which is the SSA.

“contracted user” means the *user* specified in a *contract note*.

“force majeure event” in relation to any person, means any fact beyond the reasonable control of that person which prevents, hinders or delays that person from or in the performance of any liability of that person under any agreement, but excluding any fact resulting from any action, or omission or default of that person, or any agent of that person.

“FSS” has the meaning given to it in the ~~rules~~[procedures](#) and is also defined as the *contracted charge*.

“gas day” has the meaning given it in the ~~rules~~[procedures](#).

“gate point” has the meaning given to it in the ~~rules~~[procedures](#).

“governmental agency” means:

- (a) the Crown, any government, any governmental ministry or department; or
- (b) any Crown, governmental, semi-governmental, statutory, parliamentary, administrative, fiscal, public, federal, state, national, municipal, local, judicial or regulatory:
 - (i) entity;
 - (ii) agency;

- (iii) instrumentality;
- (iv) utility;
- (v) authority;
- (vi) court;
- (vii) commission;
- (viii) body; or
- (ix) tribunal.

“governmental consent” means:

- (a) any consent, authorisation, registration, filing, lodgement, agreement, notarisation, certificate, permission, licence, approval, authority or exemption from, by or with any *governmental agency*;
- (b) in relation to any act, matter or thing which would be legally prohibited or restricted in whole or in part if any *governmental agency* intervenes or acts in any manner within a specified period after its lodgement, filing, registration or notification, the expiry of that period without intervention or action;
- (c) in relation to any present or future agreement or document created or action performed by any person, means any governmental consent within any previous meaning necessary or desirable for the execution, performance, validity, enforceability, priority effectiveness or transfer of any asset of or under that agreement, document or action;
- (d) in relation to any business activity at any time, any governmental consent within any previous meaning necessary or desirable for the performance of that business activity at that time; and
- (e) in relation to any present or future agreement, document, consent or asset created or held by any person at any time, means any governmental consent within any previous meaning necessary or desirable to prevent default, invalidation or a prejudicial effect under or in relation to that agreement, document, consent or asset at that time.

“insolvency event” in relation to any person means:

- (a) (**attachment**): the fact of any attachment against any asset of the person;
- (b) (**security enforcement**): the enforceability of any security interest over any asset of the person securing payment for any amount subsequent to the occurrence of any default event under that security interest;
- (c) (**receivership**): the appointment of any receiver over, or possession taken by any secured *party* of, any asset of the person;

- (d) (**insolvency**): cessation of payment generally by the person or the inability of the person, or the other *party* to this deed (“**other party**”) reasonably deciding that the person is unable, to pay all its debts as and when they become due and payable;
- (e) (**administration**): the appointment of any administrator of the person;
- (f) (**liquidation**): any legal action, not being in the decision of the other *party* a disputed action, being commenced, judicial order made or resolution passed for the liquidation of the person; or
- (g) (**debt arrangement**): the creation by the person of any debt arrangement with its creditors generally or any class of creditors.

“**law**” includes present and future:

- (a) written and unwritten laws of the Commonwealth, Western Australia and of any other State, Territory or foreign country having jurisdiction over the subject matter of this deed; and
- (b) judgments, determinations, decisions, rulings, directions, notices, regulations, by-laws, statutory instruments, Codes of Practice, Australian Standards or orders given or made under any of those laws or by any *governmental agency* or authority.

“**loan swing service**” means a service whereby a SSP permits a *user* to ‘borrow’ (or notionally withdraw) gas from a *pipeline* at a *gate point*, on the terms of a *swing service contract*. To avoid doubt, the provision of a loan swing service by a SSP involves the supply of a gas capacity service and it does not involve the physical supply of gas.

“**market share**” has the meaning given to it in the ~~rules~~[procedures](#).

“**market tasks**” means the tasks performed by ~~REMC~~[AEMO](#) under the ~~rules~~[procedures](#), referred to in clause 6.2.

“**MCP(ANUSA)**” has the meaning given to it in the ~~rules~~[procedures](#).

“**MCP(TSS(BS))**” has the meaning given to it in the ~~rules~~[procedures](#).

“**park swing service**” means a service whereby a SSP permits a *user* to ‘park’ (or notionally store) gas in a *pipeline* at a *gate point*, on the terms of a *swing service contract*. To avoid doubt, the provision of a park swing service by a SSP involves the supply of a gas capacity service and it does not involve the physical supply of gas.

“**participating user**” in relation to a:

- (a) a *sub-network*, means that the *user* is a *user* for the *sub-network* as set out in ~~rule~~[clause](#) 3(2)(i); and
- (b) a *gate point*, means that the *user* is a *user* for the *sub-network*, as set out in ~~rule~~[clause](#) 3(2)(i), for the *sub-network* for the *gate point* as set out in ~~rule~~[clause](#) 3(2)(h)(iii).

“parties” means the SSP and the users, and “party” means any of them.

“prescribed interest rate” means five annual percentage points above the Reserve Bank of Australia cash rate applying from time to time.

“procedures” means (in accordance with clause 3.3) the Retail Market Procedures as in force from time to time, and a reference to “clause” followed by a number is a reference to the clause so numbered in the procedures as at the date of this deed (as the clause is amended, substituted and renumbered from time to time).

“related body corporate” has the meaning given to it in the ~~rules~~ procedures.

~~“REMCo” has the meaning given to it in the rules.~~

“repay” in relation to swing service means:

- (a) for loan swing service — to cause the gas which was notionally borrowed from a pipeline under the loan swing service to be repaid; and
- (b) for park swing service — to cause the gas which was notionally stored in the pipeline under the park swing service to be retrieved.

To avoid doubt, the repayment of swing service by a user does not involve the physical supply of gas.

~~“rules” means (in accordance with clause 3.3) the REMCo Market Rules as in force from time to time, and a reference to “rule” followed by a number is a reference to the rule so numbered in the rules as at the date of this deed (as the rule is amended, substituted and renumbered from time to time).~~

“service period” means the period beginning on the gas day (gas day D) specified in the contract note under ~~rule~~ clause 296(h) (“specified day”) and ending at the end of the second gas day after the specified day (gas day D+2).

“SSP” means the person named above at item 1 under the heading “Parties”.

“swing service” means park swing service or loan swing service.

“swing service contract” means the contract which arises under clause 7 from the giving of a contract note.

“user” means a person who is registered as a user under the ~~rules~~ procedures.

“users” means, subject to clause 2.2(b), all the users collectively as a party to this deed.

1.2 Interpretational Rules

Rules of interpretation apply to this deed as specified in this provision, unless the context otherwise requires:

- (a) (headings): headings and subheadings are for convenience only and do not affect interpretation;

- (b) (**persons**): a reference to “**person**” includes a public body, company, or association or body of persons, corporate or unincorporated;
- (c) (**plurality**): words denoting the singular number include the plural, and vice versa;
- (d) (**laws**): a reference to a *law* includes any amendment or re-enactment of it that is for the time being in force, and includes all *laws* made under it from time to time;
- (e) (**gender**): words denoting any gender include all genders;
- (f) (**variations**): any grammatical or linguistic variation of a defined word or expression has a corresponding meaning;
- (g) (**parties**): any reference to a party to any agreement or document includes its successors and permitted assigns;
- (h) (**amendments**): any reference to any agreement or document includes that agreement or document as amended at any time;
- (i) (**references**): any reference to a clause, schedule, annexure, exhibit or attachment is a reference to a clause of, or schedule, annexure, exhibit or attachment to, this deed;
- (j) (**specifics**): any specific reference to or listing of items following the word “**including**” does not exclude application to other items, whether or not in the same class, category or genus as any specified or listed items;
- (k) (**time**): the expression “**at any time**” includes reference to past, present and future time and the performance of any action from time to time and any liability at all times during any specified period;
- (l) (**under**): the word “**under**” includes “by”, “by virtue of”, “pursuant to” and “in accordance with”;
- (m) (**consents**): the expression “**prior consent**”, in relation to any provision which prohibits or restricts any action by any *party* except with the prior consent of any *other party*, means the prior written consent of that *other party*, and includes reference to the fact that any consent may in the absolute and uncontrolled decision of that *other party* be refused or given subject to the performance of any condition or other provision; and
- (n) (**italics**): where italic typeface has been applied to some words and expressions, it is solely to indicate that those words or phrases may be defined in clause 1.1 or elsewhere, and in interpreting this deed, the fact that italic typeface has or has not been applied to a word or expression is to be disregarded.

2. APPLICATION

2.1 There is no clause 2.1.

2.2 There is no clause 2.2

2.3 This deed covers all sub-networks

- (a) This deed applies in respect of each *bid stack* operated by ~~REMC~~CoAEMO under the ~~rules~~procedures.
- (b) In relation to any circumstance or liability associated with a *bid stack*, *gate point* or *sub-network*, a reference to the “**users**” is a reference to those of the *users* who are *participating users* in the *sub-network*.

2.4 Users to provide schedule

From time to time, and at any time upon reasonable request by the *SSP*, the *users* must give the *SSP* a schedule identifying:

- (a) each *sub-network* at which ~~REMC~~CoAEMO operates a *bid stack*, and
- (b) for each *sub-network*, the participating users.

3. THE ~~RULES~~PROCEDURES, THIS DEED AND A SWING SERVICE CONTRACT

3.1 ~~Rules~~Procedures govern process

The ~~rules~~procedures establish the terms on which:

- (a) the *SSP* may bid into the *bid stack*; and
- (b) ~~REMC~~CoAEMO will assess the validity of *bids*, administer the *bid stack* and undertake *swing service* calculations and allocations; and
- (c) ~~REMC~~CoAEMO will issue a contract note,

and to the extent necessary to achieve this result the relevant ~~rules~~procedures have effect as terms of this deed.

3.2 References to this deed include a swing service contract

Unless the contrary intention is expressly stated, a reference in this deed to a right or obligation under this deed (or like expressions) includes a right or obligation under a *swing service contract*.

3.3 Changes to the ~~rules~~procedures

- (a) For the purposes of this deed the ~~rules~~procedures which apply are the ~~rules~~procedures as amended from time to time (including after the date of this deed) under:
 - (i) the ~~rules~~procedures (as amended from time to time); and

- (ii) the ~~REMCo Constitution~~ WA Gas Retail Market Agreement (as amended from time to time); and
 - (iii) applicable *laws*.
- (b) Whenever the ~~rules~~ procedures are amended in a manner which materially impacts upon the SSP's rights or obligations under this deed, the *users* must provide the SSP with a copy of the amended ~~rules~~ procedures, but a failure to comply with this clause 3.3(b) does not affect the operation of clause 3.3(a).

3.4 Changes to this deed

- (a) ~~REMCo~~ AEMO may by notice to the SSP unilaterally vary the terms of this deed in accordance with the terms of any amendment to Appendix 7 where ~~REMCo~~ AEMO has complied with ~~rule~~ clause 16(5) in respect of that amendment. Such variation will have effect from the date notified to the SSP by ~~REMCo~~ AEMO.
- (b) A variation under this clause 3.4 may only amend this deed in such a way that its terms after amendment are the then current form of SSPUD appended to the ~~rules~~ procedures.
- (c) A variation under this clause 3.4 may only operate prospectively. It does not affect rights and obligations already accrued under this deed or any *swing service contract*.

4. DURATION

- (a) This deed starts when signed by the last party to sign it, and continues indefinitely unless terminated under clauses 4(b), 4(c) or 5.3 or otherwise by operation of *law*.
- (b) The SSP may terminate this deed by giving 1 month's notice to the *users*.
- (c) The *users* may terminate this deed by giving 1 month's notice to the SSP.

5. THE USERS

5.1 Several liability

- (a) Subject to clause 5.1(b), the rights, liabilities, indemnities and obligations of the *users* under this deed are several (and not joint or joint and several) in proportion to each *user's market share* in a given *sub-network*.
- (b) In respect of a loss, liability, claim, damages, cost or expense arising out of or in connection with one or more *users'* breach of, or negligence under, this deed ("**claim**"), the liability of a *user* under this deed is several (and not joint or joint and several) in proportion to the extent that a *user's* breach of, or negligence under, this deed caused or contributed to the *claim*.
- (c) Nothing in this deed makes a *user* an agent, joint venturer, employee or partner of another *user*.

5.2 Decisions to be unanimous

- (a) Subject to clause 5.2(b), any decision by the *users* under this deed must be unanimous.
- (b) A *user*, who is a *related body corporate* of the *SSP*, is not required to consent to the termination of this deed under clause 12.1 for the *users*' decision to terminate to be valid.
- (c) Unless it has actual knowledge or notice to the contrary, the *SSP* may assume without further enquiry that a notice from *REMCeAEMO* under clause 6.4(a)(ii) purporting to be given on behalf of the *users*' represents the *users*' unanimous decision.

5.3 Admission of new entrants

- (a) Upon (or prior to) a person ("**new entrant**") becoming registered with *REMCeAEMO* as a *user*, *REMCeAEMO* will give the *SSP* an *admission note* which:
 - (i) identifies the *new entrant*; and
 - (ii) informs the *SSP* that the *new entrant* is (or is to be) one of the *users*; and
 - (iii) identifies the *sub-networks* in which the *new entrant* is (or is to be) a *participating user*.
- (b) An *admission note* is an offer from the *users* (being each *user* who was initially a *party* to this deed and each *user* subsequently joining this deed under this clause 5.3, including the *new entrant*) to the *SSP* to amend this deed to add the *new entrant* as one of the *users*.
- (c) If *REMCeAEMO* gives the *SSP* an *admission note*, then:
 - (i) if at any time thereafter the *SSP* lodges a bid with *REMCeAEMO*, the *SSP* is deemed by this clause 5.3(c)(i) to have agreed irrevocably to the offer referred to in clause 5.3(b) and this deed is amended to add the *new entrant* as one of the *users*; or
 - (ii) unless the *SSP* gives written notice to *REMCeAEMO* terminating this deed before 5pm on the 5th *business day* after the notice is given ("**deadline**"), then the *SSP* is deemed by this clause 5.3(c)(ii) to have agreed irrevocably to the offer referred to in clause 5.3(b) and this deed is amended from the *deadline* to add the *new entrant* as one of the *users*.
- (d) The *SSP* may not give a notice under clause 5.3(c)(ii) terminating this deed if it has already accepted the offer under clause 5.3(c)(i).

5.4 Exit provisions

- (a) A *user* ceases to be a *party* to this deed at the time that it is no longer a *user* for any *sub-network*, as set out in *rule clause* 3(2).

- (b) Nothing in this clause 5.4 affects and rights or obligations accrued prior to the *user* ceasing to be a *party*.
- (c) **REMCeAEMO** will as soon as practicable notify the *SSP* of a *user's* ceasing to be a *party* to this deed under this clause 5.4.

6. **REMCeAEMO**

6.1 **SSP must deal only with **REMCeAEMO****

- (a) Unless this deed or the *users* specify otherwise, whenever the *SSP* is permitted or required to give a *notice* or other communication under this deed to the *users*, it must do so by giving it to **REMCeAEMO** on the *users'* behalf, and not directly to the *users*.
- (b) Clause 6.1(a) does not apply if due to the insolvency of **REMCeAEMO** or other extraordinary circumstance it would prevent the *SSP* from communicating effectively with the *users*.
- (c) To avoid doubt a *tax invoice* under clause 8 is to be given to the *user* named in the *tax invoice*, and not to **REMCeAEMO** the *users*.

6.2 **Market tasks**

- (a) **REMCeAEMO** will perform all tasks (“**market tasks**”) specified for it under the ~~*rules*~~*procedures* in calculating and allocating *swing service* and issuing a *contract note*, including:
 - (i) receiving *bids* and assessing their validity;
 - (ii) administering the *bid stack*;
 - (iii) calculating *marginal clearing prices* and *swing service* costs; and
 - (iv) allocating *swing service* between *users* and *swing service providers*.
- (b) Having performed the *market tasks* for a *gas day*, **REMCeAEMO** will in accordance with the ~~*rules*~~*procedures* give the *SSP* and a *user* a *contract note*.

6.3 **REMCeAEMO acts as independent expert in issuing contract note**

REMCeAEMO performs the *market tasks* and issues a *contract note* as an independent expert, and not as agent for the *SSP*, the *users* or a *user*.

6.4 **Limited agency**

- (a) For the purposes of and subject to this deed, **REMCeAEMO** is the *users'* agent in respect of the following matters:
 - (i) a *notice* given by the *SSP* to **REMCeAEMO** under this deed is to be taken as having been given to the *users*; and

- (ii) a *notice* (other than a *contract note*) given by REMCoAEMO to the SSP under this deed is to be taken as having been given by the *users*.
- (b) Clause 6.4(a)(i) does not apply in respect of *notices* to be given by the SSP to an individual *user* (rather than to *users* collectively), for example *tax invoices* under clause 8 and related correspondence.

6.5 Limitations on REMCoAEMO's agency

Nothing in this deed, including the giving of a *contract note* or an *admission note*, makes REMCoAEMO an agent of the SSP, the *users* or a *user* in respect of:

- (a) the giving of a *contract note*;
- (b) the provision of *swing service*;
- (c) the payment of a *contracted charge*; or
- (d) any other obligation or liability under a *swing service contract*.

6.6 REMCoAEMO's Liability

- (a) Other than in respect of REMCoAEMO's wilful misconduct or fraud, REMCoAEMO is not liable to the *parties* or any of them for anything done or not done under this deed or a *swing service contract*, whether negligently or otherwise.
- (b) Without limiting clause 6.6(a), in no circumstances (including REMCoAEMO's negligence) is REMCoAEMO to be liable:
 - (i) to provide *swing service*; or
 - (ii) to pay a *contracted charge*; or
 - (iii) in respect of the failure to do either or both of those things.
- (c) The *parties* release and indemnify REMCoAEMO from and against any claims for breach of contract, negligence or other misconduct (other than wilful misconduct and fraud) in connection with anything done or not done by REMCoAEMO in the course of discharging, or not discharging, its obligations under this deed.

6.7 No partnership etc.

Nothing in this deed, an *admission note* or a *contract note* makes REMCoAEMO an employee, joint venturer or partner of the SSP, the *users* or a *user*.

6.8 No remuneration

REMCoAEMO is not entitled under this deed to any remuneration or reimbursement of costs for performing its obligations under this deed.

6.9 Confidentiality

Part 8.2 of the ~~rules~~[procedures](#) applies as a term of this deed.

7. THE SWING SERVICE CONTRACT

7.1 Contract note creates contract

A *contract note* creates a legally binding contract (“**swing service contract**”) on the terms set out in this deed between the *SSP* and the *contracted user* under which:

- (a) (**SSP must provide**) the *SSP* must provide the *contracted service* for the *service period* for the *contracted charge*; and
- (b) (**User must accept and pay**) the *contracted user* must accept the *contracted service* for the *service period*, and must pay the *SSP* the *contracted charge*.

7.2 Contract note is conclusive proof

Unless ~~REMC~~[AEMO](#) issues a revised *contract note*, the contents of a *contract note* are conclusive evidence of the terms of the *swing service contract*.

8. INVOICING AND PAYMENT

8.1 Invoicing frequency

The *SSP* may issue an invoice in the form of a *tax invoice* to a *user*:

- (a) whenever the total amount payable by the *user* to the *SSP* for *contracted services* exceeds \$10,000; and
- (b) otherwise, on the 14th and last day of each month.

8.2 SSP to invoice user

The *SSP's tax invoice* must show, for the period since the last *tax invoice* under this deed (“**billing period**”):

- (a) for each *contracted service* supplied during the *billing period*:
 - (i) the date the *contracted service* was provided;
 - (ii) the *contracted gate point*;
 - (iii) the amount of *contracted service*;
 - (iv) whether the *contracted service* is *park swing service* or *loan swing service*; and
 - (v) the *contracted charge*;
- and

- (b) any other amounts payable by or refundable to the *user* under this deed and any interest payable thereon under clause 8.4.

8.3 Payment

A *user* must, within 10 *business days* after receipt of a *tax invoice* issued under clause 8.1, pay to the *SSP* the net amount shown on the *tax invoice* as payable, by cleared funds, regardless of whether the *tax invoice* is disputed under clause 8.5.

8.4 Default in payment

- (a) Subject to clause 8.5, if a *contracted user* fails by the relevant due date to make full payment of the net amount shown on a *tax invoice* then, without prejudice to the *SSP's* other rights, the *contracted user* must pay interest on the unpaid amount, calculated daily at the *prescribed interest rate* from the due date until payment.
- (b) This clause does not limit ~~rule~~[clause](#) 296A.

8.5 Disputed invoices

If a *user* disputes any amount or amounts set out in a *tax invoice*, then the *user* must, within 15 *business days* after the date of the *tax invoice*, give notice in writing to the *SSP* that it disputes the amount or amounts and full details of the dispute.

9. GST

- (a) In this clause 9:
 - (i) words and expressions which are not defined in this deed but which have a defined meaning in the *GST Law* have the same meaning as in the *GST Law*; and
 - (ii) “**GST Law**” has the meaning given to that expression in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).
- (b) Unless otherwise expressly stated, all prices or other sums payable or consideration to be provided under a *swing service contract* under this deed are exclusive of GST.
- (c) The supply of a *contracted service* by an *SSP* to a *contracted user* is a taxable supply.
- (d) If GST is payable by:
 - (i) a supplier; or
 - (ii) by the representative ~~Scheme participant member~~[Scheme participant](#) for a GST group of which the supplier is a ~~Scheme participant member~~[Scheme participant](#),

on any supply made under a *swing service contract* under this deed, the recipient of the supply must pay to the supplier an amount equal to the GST payable on the supply.

- (e) The recipient must pay the amount referred to in clause 9(d):
 - (i) in addition to the consideration for the supply; and
 - (ii) at the same time that the consideration for the supply must be provided under the *swing service contract* under this deed.
- (f) The supplier must provide a tax invoice or an adjustment note to the recipient before the supplier is entitled to payment of the amount under clause 9(d).
- (g) The recipient may withhold payment of the amount under clause 9(d) until the supplier provides a tax invoice or an adjustment note, as appropriate.
- (h) If an adjustment event arises in respect of a taxable supply made by a supplier under a *swing service contract* under this deed, the amount payable by the recipient under clause 9(d) must be recalculated to reflect the adjustment event and the recipient must make a payment to the supplier or the supplier must make a payment to the recipient, as the case requires.
- (i) Where a *swing service contract* under this deed requires a person to pay or reimburse an expense or outgoing of another person, the amount to be paid or reimbursed by the first person will be the sum of:
 - (i) the amount of the expense or outgoing less any input tax credits in respect of the expense or outgoing to which the other person, or to which the representative [Scheme participant](#) ~~member~~ for a GST group of which the other person is a [Scheme participant](#) ~~member~~, is entitled; and
 - (ii) if the payment or reimbursement is subject to GST, an amount equal to that GST.

10. FORCE MAJEURE

- (a) **(Liability exclusion):** Neither *party* is liable to the *other party* for any loss incurred by that *other party* as a direct result of either *party* failing or being prevented, hindered or delayed in the performance of its liability under this deed by reason of a *force majeure event*.
- (b) **(Notification):** The *party* affected by a *force majeure event* must as soon as practicable notify the *other party* in writing of:
 - (i) any anticipated delay due to that *force majeure event*;
 - (ii) details of the *force majeure event*;
 - (iii) the expected duration of the *force majeure event*; and
 - (iv) details of the steps being taken to overcome the *force majeure event*,

and use all reasonable endeavours to perform its liability under this deed.

- (c) **(Inability to pay excluded)**: The inability to pay money, however caused, does not constitute a *force majeure event*.
- (d) **(SSP takes pipeline risk)**: The SSP may not claim a *force majeure event* in respect of any failure to perform its obligations under this deed which is caused by:
 - (i) any provision of an agreement between the SSP and a *pipeline operator*; and
 - (ii) any default, act or omission of any *pipeline operator*.

11. REPRESENTATIONS

11.1 Representations

Each *party* represents to the *other party* that as at the date of this deed:

- (a) **(corporate status)**: if the *party* is a corporation, that *party* is a corporation duly incorporated and validly existing under the *law* of the country or jurisdiction of its incorporation or registration;
- (b) **(corporate powers)**: if the *party* is a corporation, that *party* has the corporate power to own its assets and perform its obligations under this deed and any business activity as contemplated at any time by this deed;
- (c) **(legal compliance)**: the execution or performance of this deed and a *swing service contract* by that *party* does not contravene any provision of:
 - (i) the constitution documents of that *party*;
 - (ii) any agreement created by that *party*;
 - (iii) any *law*; or
 - (iv) any *governmental consent* relating to that *party* or its assets;
- (d) **(corporate compliance)**: that *party* has full power, and has procured all necessary corporate consents, for the execution by that *party* of this deed; and
- (e) there is no pending or threatened action or proceeding affecting the SSP or any of its related bodies corporate or any of their respective assets before a court, referee, *governmental agency*, commission, arbitrator or other tribunal which will, or might reasonably be expected to, materially affect its ability to perform its obligations under this deed or under a *swing service contract* under this deed.

11.2 SSP warrants that it has pipeline entitlements

The SSP represents and warrants to the *users* and each *user* that:

- (a) the SSP has sufficient contractual entitlements with the *pipeline operator* of the relevant *pipeline* to enable the SSP to perform each *swing service contract* and provide each *contracted service*; and
- (b) for each *contracted service* — the *pipeline operator* of the relevant *pipeline* will in 2 days' time be able to accommodate the *repayment* of the *swing service* as contemplated by clause 11.2(c); and
- (c) for each *contracted service* — the SSP will repay in 2 days' time the user's *swing service repayment quantity* which corresponds to the *contracted service*.

11.3 Application

- (a) **(Separate effect):** Each representation in clauses 11.1 and 11.2 is a separate representation, without its scope or meaning being limited or governed by any other such representation.
- (b) **(Repetition):** The representations and warranties in clauses 11.1 and 11.2 are made on and from the date this deed starts, and are by force of this clause to be taken to be made anew on each day thereafter for the duration of this deed.

11.4 If breach of SSP's warranty causes additional swing service

If ~~REMC~~~~Co~~AEMO determines under ~~rule~~~~clause~~ 300A that the SSP must make a *swing service causation compensation payment* to a *user* that is a party to this deed, the SSP must, in accordance with ~~rule~~~~clause~~ 300A, make the *swing service causation compensation payment* to the *user*.

12. TERMINATION

12.1 SSP Default Termination

The *users* may immediately terminate this deed by written *notice* to the SSP, effective immediately or upon the date specified in the *notice*, upon the occurrence of:

- (a) **(default):** any material default under this deed, except for a rectifiable default which is rectified within 30 days following written *notice* from the *users* requiring rectification; or
- (b) **(insolvency):** the occurrence of an *insolvency event*.

12.2 SSP suspension

- (a) If the *users* give a *notice* requiring rectification, under clause 12.1(a) they may by written *notice* to the SSP suspend the SSP under this clause 12.2.
- (b) The *users* must as soon as practicable after being satisfied (acting reasonably) that the SSP has rectified all breaches specified in any current *notices* requiring rectification under clause 12.1(a), by written notice to the SSP, cancel the suspension.

- (c) While the SSP is suspended, it:
 - (i) must not *bid* into a *bid stack*; and
 - (ii) must continue to comply with its obligations under this deed and a *swing service contract*; and
 - (iii) is still entitled to receive payment under [rule clause](#) 8.3.

12.3 Termination Effect

Termination of this deed releases any *party* from any further performance of any liability under this deed but does not:

- (a) **(continuing liability)**: affect any provision of this deed expressed to operate or have effect subsequent to termination; or
- (b) **(accrued rights)**: have any prejudicial effect on any accrued right of any *party* accruing prior to termination.

13. LIABILITY

- (1) [Rules](#)[Clauses](#) 376 to 377 apply as terms of this deed and a *swing service contract* with appropriate modifications, including by replacing each reference to “these [rules](#)[procedures](#)” with, as appropriate:
 - (a) a reference to “this deed or a *swing service contract*”; or
 - (b) a reference to “this *swing service contract*”.
- (2) [Rule](#)[Clause](#) 377A applies as a term of this deed and a *swing service contract* with appropriate modifications, including by replacing each reference to “these [rules](#)[procedures](#)” with, as appropriate:
 - (a) a reference to “the [rules](#)[procedures](#), this deed or a *swing service contract*”; or
 - (b) a reference to “the [rules](#)[procedures](#) or this *swing service contract*”.

14. DISPUTE RESOLUTION

14.1 Disputes

This provision applies to any dispute or difference (“**dispute**”) arising between the parties in relation to:

- (a) **(interpretation)**: this deed or its interpretation;
- (b) **(rights)**: any right or liability of any *party* under this deed or a *swing service contract*; or
- (c) **(action)**: the performance of any action by any *party* under or arising out of this deed or a *swing service contract*, whether prior or subsequent to its termination.

14.2 Dispute Negotiation

- (a) **(Restriction)**: Except in the case of a *party* seeking urgent interlocutory relief, a *party* must not refer a *dispute* to litigation or arbitration under this deed, unless that *party* has complied with this provision.
- (b) **(Dispute notification)**: A *party* claiming that a *dispute* has arisen must notify the *other party* specifying details of the *dispute*.
- (c) **(Negotiation)**: Each *party* must refer a *dispute* to a senior officer for consideration and use its best efforts to resolve the *dispute* through negotiation within 5 *business days* following the *dispute* notification or longer period if agreed between the *parties*.
- (d) **(Referral)**: Each *party* must refer the *dispute* to its chief executive officer, in the event that the senior officers of the *parties* fail to resolve the *dispute* within the specified period.
- (e) **(Mediation)**: Each *party* must, following reference to its chief executive officer, use its best efforts to resolve the *dispute* by agreement or through an agreed mediation procedure.
- (f) **(Process termination)**: A *party*, in compliance with this provision, may terminate the *dispute* resolution process by *notice* to the *other party* at any time after 5 *business days* following reference of the *dispute* to its chief executive officer.
- (g) **(Restriction release)**: A *party* is not required to comply with this provision in relation to any *dispute* where the *other party* is in default under this provision in relation to that *dispute*.

14.3 Continued Performance

The *parties* must continue to perform this deed and any *swing service contracts* (including any *swing service contract* arising from a *contract note* given after notification of the *dispute*), despite and during any *dispute* negotiation or resolution being conducted under this provision.

15. COSTS

Each *party* must pay its own costs in relation to:

- (a) **(documentation)**: the negotiation, preparation, execution, performance, amendment or registration of, or any consent given or made; and
- (b) **(performance)**: the performance of any action by that *party* in compliance with any liability arising,

under this deed or a *swing service contract*, or any agreement or document executed or effected under this deed, unless this deed provides otherwise.

16. DUTIES

The *users* must promptly within the initial applicable period prescribed by *law* pay any levy, deduction, charge, tax, impost or other duty payable in relation to the execution, performance and registration of this deed, or any agreement or document executed or effected under this deed.

17. ASSIGNMENT

17.1 SSP Assignment

The *SSP* must not at any time during the continuance of this deed in relation to the supply of the *contracted service*, without the prior consent of the *user*:

- (a) (**rights**): transfer, or create any security interest affecting or relating to, all or any part of this deed or a *swing service contract*, or any right of the *SSP* under this deed or a *swing service contract*;
- (b) (**subcontracts**): create any subcontract relating to the performance of all or any of the *SSP*'s obligations under this deed or a *swing service contract*; or
- (c) (**liabilities**): novate or transfer this deed or a *swing service contract*, or any liability of the *SSP* under this deed or a *swing service contract*.

18. NOTICES

A notice given by a person under this deed or a *swing service contract* is validly given if it is given in accordance with the notice provisions of the ~~rules~~[procedures](#).

19. GOVERNING LAW AND JURISDICTION

- (a) This deed is governed by, and construed in, each State by the *laws* of the State.
- (b) Any legal action in relation to this deed against any *party* or its property may be brought in a State in any court of competent jurisdiction in the State.
- (c) Each *party* irrevocably, generally and unconditionally submits to the non-exclusive jurisdiction of any court specified in this clause 19 in relation to both itself and its property.

20. GENERAL PROVISIONS

20.1 Contractual Relationship

- (a) (**Independent contractor**): The *SSP* acts in the capacity of an independent contractor, as between the *SSP* and a *user* (or the *users*), in the performance of any *swing service contract* or any liability under this deed.
- (b) (**Exclusions**): This deed does not create, and must not be construed to create, any express or implied relationship between a *user* (or the *users*) and the *SSP* of:
 - (i) employment,

- (ii) principal and agency;
- (iii) partnership; or
- (iv) joint venture.

20.2 Amendments

Any amendment to this deed has no effect unless in writing and executed by the parties.

20.3 Third Parties

This deed confers rights only upon a person expressed to be a party, and not upon any other person.

20.4 Pre-Contractual Negotiation

This deed:

- (a) **(entire agreement)**: expresses and incorporates the entire agreement between the *parties* in relation to its subject-matter, and all the terms of that agreement; and
- (b) **(collateral agreement)**: supersedes and excludes any prior or collateral negotiation, understanding, communication or agreement by or between the *parties* in relation to that subject-matter or any term of that agreement.

20.5 Further Assurance

Each party must execute any document and perform any action necessary to give full effect to this deed, whether prior or subsequent to performance of this deed.

20.6 Continuing Performance

- (a) **(Merger exclusion)**: The provisions of this deed do not merge with any action performed or document executed by any *party* for the purposes of performance of this deed.
- (b) **(Representation)**: Any representation in this deed survives the execution of any document for the purposes of, and continues subsequent to, performance of this deed.
- (c) **(Indemnity)**: Any indemnity agreed by any *party* under this deed:
 - (i) constitutes a liability of that *party* separate and independent from any other liability of that *party* under this deed or any other agreement; and
 - (ii) survives and continues subsequent to performance of this deed.

20.7 Waivers

Any failure by any *party* to exercise any right under this deed does not operate as a waiver and the single or partial exercise of any right by that *party* does not preclude any other or further exercise of that or any other right by that *party*.

20.8 Remedies

The rights of a *party* under this deed are cumulative and not exclusive of any rights provided by law.

20.9 Severability

Any provision of this deed which is invalid ~~in any jurisdiction~~ is invalid ~~in that jurisdiction~~ to that extent, without invalidating or affecting the remaining provisions of this deed ~~or the validity of that provision in any other jurisdiction~~.

20.10 Counterparts

This deed may be executed in any number of counterparts, all of which taken together are deemed to constitute one and the same document.

EXECUTED as a deed

[Execution clauses]

Appendix 8 – Terms and conditions for swing service provider of last resort

- Insert new clauses into SSPUD

Insert the following three new clauses:

“

21. SSP IS SSPOLR FOR DESIGNATED GATE POINTS

- (a) The SSP is the SSPOLR (as defined in the ~~rules~~ *procedures*) for the *gate points* (“**designated gate points**”) set out in the Appendix to this deed.
- (b) [Here set out provisions dealing with agreed limits on the service, ~~eg~~ *e.g.* only certain days or only park service – as agreed with the SSPOLR.]

22. STANDING SSPOLR BID

- (a) The SSP in its capacity as SSPOLR agrees that under ~~rule~~ *clause* 285(2):
- (b) the ~~REMC~~ *CoAEMO* bid stack for each designated gate point is deemed to include a standing SSPOLR bid [**for park swing service / loan swing service / both – insert as agreed with the SSPOLR**].
- (c) the *standing SSPOLR bid* is for an unlimited amount of *swing service*, at the SSPOLR price of [**insert price**] (but subject to ~~rules~~ *clauses* 287(3) and 288(3)).

23. SSPOLR may be SSP

Nothing in this deed prevents the SSPOLR from also entering into a SSPUD with the *users* as an SSP.

- Amend clauses of SSPUD

(1) Pipeline capacity constraints – different force majeure clause

Clause 10(d) of the SSPUD is deleted and replaced by the following:

“(d) (**SSPOLR takes pipeline risk in normal circumstances**): The SSPOLR may not claim *force majeure* in respect of any failure to perform its obligations under this deed which is caused by:

- (i) any provision of an agreement between the SSPOLR and a *pipeline operator*; and
- (ii) any default of any *pipeline operator*,

unless the failure is caused by circumstances which could not be foreseen or overcome by the SSPOLR acting as a *reasonable and prudent person*.”

(2) Pipeline capacity constraints – different warranty

Clause 11.2 of the *SSPUD* is deleted and replaced by the following:

“11.2 SSP warrants that it has pipeline capacity

The *SSPOLR* represents and warrants to each *user* that the *SSPOLR* has sufficient contractual entitlements with the necessary *pipeline operator* to enable the *SSPOLR* in normal operating circumstances to fulfil all obligations of a *SSPOLR* which would be foreseen by a *reasonable and prudent person*. ”

Appendix 9 – Fallback User-Shipper Agreement

PARTIES

1. The *shipper* which gave the *listing request* referred to in recital B; and
2. The *user* named in the *listing request* referred to in recital B.

BACKGROUND

- A. The *user* (the “*user*”) is a *participant* in the gas retail market governed by the *REMCoRetail* Market *RulesProcedures* and is a *user* in the *sub-network*.
- B. The *shipper* (the “*shipper*”) gave *REMCoAEMO* a *listing request* (the “*listing request*”) under *ruleclause* 173(2)(a) in respect of the *user* and a *sub-network* (the “*sub-network*”), which under *ruleclause* 193A(1)(a) was an offer from the *shipper* to the *user* to enter into this agreement.
- C. The *user* subsequently gave *REMCoAEMO* an *allocation instruction* under Part 5.3 of the *rulesprocedures* in respect of the *sub-network* which listed the *shipper*, which under *ruleclause* 193A(1)(b) was an acceptance by the *user* of the offer referred to in recital B, and the *parties* became *parties* to this agreement.
- D. Under *ruleclause* 192(2), *REMCoAEMO* may give a notice (“*ruleclause* 192(2) notice”) apportioning to the *shipper* some or all of the *user’s gas injections* (the amount apportioned being the “*apportioned injections*”) for the *sub-network* for the *gas day* (the “*contracted day*”) specified in the *ruleclause* 192(2) notice.
- E. If *REMCoAEMO* gives a *ruleclause* 192(2) notice, the *shipper* will be deemed to have supplied the *apportioned injections* (the “*contracted supply*”) to the *user* at the *gate point* (the “*gate point*”) which interconnects the *pipeline* in which the *shipper* is a *shipper* with the *sub-network*.
- F. Under this agreement, a *ruleclause* 192(2) notice creates a contract (the “*deemed contract*”) between the *shipper* and the *user* in accordance with this agreement.
- G. The *deemed contract* governs the *user’s* obligations to reimburse the *shipper* for all costs incurred by the *shipper* as a result of the *contracted supply* (“*contracted charges*”).
- H. Neither this agreement nor a *deemed contract* is intended to supplant or supplement any other contractual relationship between the *user* and the *shipper*. They are intended solely as a fall-back arrangement to ensure that the *shipper* can recover its costs of the *contracted supply* if it has no other contractual relationship with the *user*.

THE PARTIES AGREE:

1. INTERPRETATION

1.1 Definitions

- (a) Unless the context otherwise requires, in this agreement and a *deemed contract*:

- (i) the definitions and ~~rules~~procedures of interpretation set out in the ~~rules~~procedures apply; and
 - (ii) the definitions embedded in the recitals and elsewhere in this agreement apply.
- (b) Unless the context otherwise requires, in this agreement and a *deemed contract* the following definitions also apply:

“AEMO” has the meaning given to it in the *procedures*.

“force majeure event” in relation to any person, means any fact beyond the reasonable control of that person which prevents, hinders or delays that person from or in the performance of any liability of that person under any agreement, but excluding any fact resulting from any action, or omission or default of that person, or any agent of that person.

“gas day” has the meaning given to it in the ~~rules~~procedures.

“gate point” has the meaning given to it in the ~~rules~~procedures.

“governmental agency” means:

- (a) the Crown, any government, any governmental ministry or department; or
- (b) any Crown, governmental, semi-governmental, statutory, parliamentary, administrative, fiscal, public, federal, state, national, municipal, local, judicial or regulatory:
 - (i) entity;
 - (ii) agency;
 - (iii) instrumentality;
 - (iv) utility;
 - (v) authority;
 - (vi) court;
 - (vii) commission;
 - (viii) body; or
 - (ix) tribunal.

“governmental consent” means:

- (a) any consent, authorisation, registration, filing, lodgement, agreement, notarisation, certificate, permission, licence, approval, authority or exemption from, by or with any *governmental agency*;

- (b) in relation to any act, matter or thing which would be legally prohibited or restricted in whole or in part if any *governmental agency* intervenes or acts in any manner within a specified period after its lodgement, filing, registration or notification, the expiry of that period without intervention or action;
- (c) in relation to any present or future agreement or document created or action performed by any person, means any *governmental consent* within any previous meaning necessary or desirable for the execution, performance, validity, enforceability, priority, effectiveness or transfer of any asset of or under that agreement, document or action;
- (d) in relation to any business activity at any time, any *governmental consent* within any previous meaning necessary or desirable for the performance of that business activity at that time; and
- (e) in relation to any present or future agreement, document, consent or asset created or held by any person at any time, means any *governmental consent* within any previous meaning necessary or desirable to prevent default, invalidation or a prejudicial effect under or in relation to that agreement, document, consent or asset at that time.

“insolvency event” in relation to any person means:

- (a) **(attachment)**: the fact of any attachment against any asset of the person;
- (b) **(security enforcement)**: the enforceability of any security interest over any asset of the person securing payment for any amount subsequent to the occurrence of any default event under that security interest;
- (c) **(receivership)**: the appointment of any receiver over, or possession taken by any secured party of, any asset of the person;
- (d) **(insolvency)**: cessation of payment generally by the person or the inability of the person, or the other party to this agreement (**“other party”**) reasonably deciding that the person is unable, to pay all its debts as and when they become due and payable;
- (e) **(administration)**: the appointment of any administrator of the person;
- (f) **(liquidation)**: any legal action, not being in the decision of the other party a disputed action, being commenced, judicial order made or resolution passed for the liquidation of the person; or
- (g) **(debt arrangement)**: the creation by the person of any debt arrangement with its creditors generally or any class of creditors.

“law” includes present and future:

- (a) written and unwritten laws of the Commonwealth, Western Australia and of any other State, Territory or foreign country having jurisdiction over the subject matter of this agreement; and

- (b) judgments, determinations, decisions, rulings, directions, notices, regulations, by-laws, statutory instruments, Codes of Practice, Australian Standards or orders given or made under any of those laws or by any *governmental agency* or authority.

“**parties**” means the *shipper* and the *user*, and “**party**” means any of them.

“**prescribed interest rate**” means five annual percentage points above the Reserve Bank of Australia cash rate applying from time to time.

~~“**REMCo**” has the meaning given to it in the *rules*.~~

“**rules procedures**” means the **REMCo****Retail** Market **Rules Procedures** as in force on the *contracted day*, and a reference to “**rule clause**” followed by a number is a reference to the **rule clause** so numbered in the **rules procedures** as at the *contracted day* (as the **rule clause** is amended, substituted and renumbered from time to time).

1.2 Interpretational Rules

- (a) Rules of interpretation apply to this agreement as specified in this provision, unless the context otherwise requires:
- (b) (**headings**): headings and subheadings are for convenience only and do not affect interpretation;
- (c) (**persons**): a reference to “**person**” includes a public body, company, or association or body of persons, corporate or unincorporated;
- (d) (**plurality**): words denoting the singular number include the plural, and vice versa;
- (e) (**laws**): a reference to a *law* includes any amendment or re-enactment of it that is for the time being in force, and includes all *laws* made under it from time to time;
- (f) (**gender**): words denoting any gender include all genders;
- (g) (**variations**): any grammatical or linguistic variation of a defined word or expression has a corresponding meaning;
- (h) (**parties**): any reference to a party to any agreement or document includes its successors and permitted assigns;
- (i) (**amendments**): any reference to any agreement or document includes that agreement or document as amended at any time;
- (j) (**references**): any reference to a clause, schedule, annexure, exhibit or attachment is a reference to a clause of, or schedule, annexure, exhibit or attachment to, this agreement;

- (k) (**specifics**): any specific reference to or listing of items following the word “**including**” does not exclude application to other items, whether or not in the same class, category or genus as any specified or listed items;
- (l) (**time**): the expression “**at any time**” includes reference to past, present and future time and the performance of any action from time to time and any liability at all times during any specified period;
- (m) (**under**): the word “**under**” includes “by”, “by virtue of”, “pursuant to” and “in accordance with”;
- (n) (**consents**): the expression “**prior consent**”, in relation to any provision which prohibits or restricts any action by any party except with the prior consent of any other party, means the prior written consent of that other party, and includes reference to the fact that any consent may in the absolute and uncontrolled decision of that other party be refused or given subject to the performance of any condition or other provision; and
- (o) (**italics**): where italic typeface has been applied to some words and expressions, it is solely to indicate that those words or phrases may be defined in clause 1.1 or elsewhere, and in interpreting these ~~rules~~procedures, the fact that italic typeface has or has not been applied to a word or expression is to be disregarded.

2. THIS AGREEMENT APPLIES IN RESPECT OF ONE SUB-NETWORK

- (a) This agreement applies only in respect of the *sub-network* referred to in recital B.

3. THIS AGREEMENT SUBORDINATE TO OTHER CONTRACTS

- (a) This agreement does not apply if the *user* and the *shipper* are parties to a current contract (“**other contract**”) other than this agreement or a *deemed contract* under this agreement in respect of the injections of gas at the *gate point* for the *user* by the *shipper*, regardless of whether the amounts recoverable under the *other contract* are more or less than would be recoverable under this agreement or a *deemed contract*.

4. THE ~~rules~~procedures, THIS AGREEMENT AND A DEEMED CONTRACT

4.1 ~~Rules~~Procedures govern process

- (a) The ~~rules~~procedures establish the terms on which ~~REMG~~AEMO:
- (b) may undertake calculations and allocations of gas quantities for a *gas day* under Chapter 5 of the ~~rules~~procedures (“**market tasks**”); and
- (c) may issue a ~~rule~~clause 192(2) notice,
- (d) and to the extent necessary to achieve this result the relevant ~~rules~~procedures have effect as terms of this agreement.

4.2 References to this agreement include a deemed contract

- (a) Unless the contrary intention is expressly stated, a reference in this agreement to a right or obligation under this agreement (or like expressions) includes a right or obligation under a *deemed contract*.

4.3 Changes to the ~~rules~~procedures

- (a) For the purposes of this agreement the ~~rules~~procedures which apply are the ~~rules~~procedures as amended from time to time (including after the date of this agreement) under:
 - (i) the ~~rules~~procedures (as amended from time to time); and
 - (ii) the ~~REMC~~Co-ConstitutionWA Gas Retail Market Agreement (as amended from time to time); and
 - (iii) applicable laws.
- (b) Whenever the ~~rules~~procedures are amended in a manner which materially impacts upon the *shipper's* rights or obligations under this agreement, the *user* must provide the *shipper* with a copy of the amended ~~rules~~procedures, but a failure to comply with this clause 4.3(b) does not affect the operation of clause 4.3(a).

4.4 Changes to this agreement

- (a) Subject to this clause 4.4, the *user* may by notice to the *shipper* unilaterally vary the terms of this agreement.
- (b) A variation under this clause 4.4 may only amend this agreement in such a way that its terms after amendment are the then current form of *fallback user-shipper agreement* appended to the ~~rules~~procedures.
- (c) A variation under this clause 4.4 may only operate prospectively. It does not affect rights and obligations already accrued under this agreement or any *deemed contract*.

5. DURATION

- (a) This agreement starts when the *user* gives the *allocation instruction* referred to in recital C, and continues indefinitely and irrevocably until the day ("**exit day**") the *user exits the market* as defined in, and in accordance with, ~~rule~~clause 377B.
- (b) Neither the *shipper* nor the *user* may terminate this agreement before the *exit day*.

6. REMCoAEMO

6.1 REMCoAEMO acts as independent expert in issuing agreement note

- (a) REMCoAEMO performs the *market tasks* and issues a *ruleclause* 192(2) notice as an independent expert, and not as agent for the *shipper* or the *user*.

6.2 Limited agency

- (a) For the purposes of and subject to this agreement, REMCoAEMO is the *user's* agent in respect of the following matters:
- (b) providing a copy of the amended *rulesprocedures* under under clause 4.39; and
- (c) giving a notice of variation under *ruleclause* 4.4.

6.3 Limitations on REMCoAEMO's agency

Nothing in this agreement, including the giving of a *ruleclause* 192(2) notice, makes REMCoAEMO an agent of the *shipper* or the *user* in respect of:

- (a) the giving of a *ruleclause* 192(2) notice;
- (b) the provision of the *contracted supply*;
- (c) the payment of a *contracted charge*; or
- (d) any other obligation or liability under a *deemed contract*.

6.4 REMCoAEMO's Liability

- (a) Other than in respect of REMCoAEMO's wilful misconduct or fraud, REMCoAEMO is not liable to the parties or any of them for anything done or not done under this agreement, whether negligently otherwise.
- (b) Without limiting clause 6.4(a), in no circumstances (including REMCoAEMO's negligence) is REMCoAEMO to be liable:
 - (i) to inject part or all the *apportioned injections*; or
 - (ii) to pay any or all of the *contracted charges*; or
 - (iii) in respect of the failure to do either or both of those things.
- (c) The parties release and indemnify REMCoAEMO from and against any claims for breach of agreement, negligence or other misconduct (other than wilful misconduct and fraud) in connection with anything done or not done by REMCoAEMO in the course of discharging, or not discharging, its obligations under this agreement.

6.5 No partnership etc.

- (a) Nothing in this agreement, a ~~rule~~clause 192(2) notice or a deemed contract makes REMCoAEMO an employee, joint venturer or partner of the shipper or the user.

6.6 No remuneration

- (a) REMCoAEMO is not entitled under this agreement to any remuneration or reimbursement of costs for performing its obligations under this agreement.

6.7 Confidentiality

- (a) Part 8.2 of the rulesprocedures applies as a term of this agreement.

7. THE DEEMED CONTRACT

7.1 RuleClause 192(2) notice creates deemed contract

- (a) A ~~rule~~clause 192(2) notice creates a legally binding contract (“**deemed contract**”) on the terms set out in this agreement between the shipper and the contracting user under which:
- (b) (**shipper deemed to have injected**) the shipper is deemed to have injected the apportioned injections for the contracted day for the contracted charge; and
- (c) (**user must accept and pay**) the user is deemed to have accepted the apportioned injections for the contracted day, and must pay the shipper the contracted charges.

7.2 Duration of deemed contract

- (a) A deemed contract applies in respect of only the contracted day specified in the ~~rule~~clause 192(2) notice, but continues in effect for so long as is necessary to permit the shipper to finally determine and recover the contracted charges.
- (b) Nothing in clause 7.2(a) prevents the shipper and the user from becoming parties to another agreement as a result of REMCoAEMO issuing another ~~rule~~clause 192(2) notice in respect of a subsequent gas day.

7.3 RuleClause 192(2) notice is conclusive proof

- (a) Unless REMCoAEMO issues a revised ~~rule~~clause 192(2) notice, the contents of a ~~rule~~clause 192(2) notice are conclusive evidence of the terms of the deemed contract.

8. THE CONTRACTED CHARGES

- (a) The user must pay to the shipper a contractual charge (“**contracted charges**”) comprising one or more components, which collectively and subject to this clause 8 are designed to recover the whole of the shipper’s actually-incurred costs of providing the apportioned injections in the circumstances prevailing on

the *contracted day*, together with a margin of 15% on all such costs payable by the *shipper* to others, to cover the *shipper's* administrative costs.

- (b) Without limiting the generality of clause 8(a), the following are some categories under which the *shipper* may wish to classify *contracted charges*:
 - (i) the commodity value of gas supplied under the *apportioned injections*;
 - (ii) any gas transportation charges (for example capacity reservation charges and commodity charges) arising from the *shipper* being allocated the *apportioned injections*; and
 - (iii) penalties, surcharges or additional fees or charges associated with any peaking, balancing or overrun arising from the *shipper* being allocated the *apportioned injections*.
- (c) For the purposes of clause 8(a), whenever it is necessary to determine the proportional impact of the *apportioned injections* on the charges incurred by the *shipper*, in circumstances in which the *shipper* may have incurred some or all of those charges in respect of its other *injections* in any event, the impact of the *apportioned injections* is to be calculated in a manner that (to the standard of a *reasonable and prudent person*) assumes the *apportioned injections* were the most expensive gigajoules delivered on the *contracted day*.

9. INVOICING AND PAYMENT

9.1 Invoicing frequency

- (a) The *shipper* may issue an invoice in the form of a *tax invoice* to a *user* for the *contracted charges* forthwith after the end of the *contracted day*.
- (b) The *shipper* may from time to time issue a *tax invoice* in respect of part only of the *contracted charges*, even if one or more other components of the *contracted charges* have not yet been determined, and may subsequently issue another *tax invoice* or *tax invoices* for one or more other components of the *contracted charges*, and may keep doing so from time to time for so long as any element of the *contracted charges* remains uninvoiced.

9.2 Shipper to invoice user

- (a) The shipper's tax invoice must show, for the contracted day:
- (b) the date of the *contracted day*;
- (c) the gate point at which the apportioned injections occurred;
- (d) the amount of the apportioned injections;
- (e) the component or components of the *contracted charge*; and
- (f) reasonable details of the calculation of each component of the *contracted charge*.

9.3 Payment

- (a) A *user* must, within 10 *business days* after receipt of a *tax invoice* issued under clause 9.1(a), pay to the *shipper* the net amount shown on the *tax invoice* as payable, regardless of whether the *tax invoice* is disputed under clause 9.5.

9.4 Default in payment

- (a) Subject to clause 9.5, if a *user* fails by the relevant due date to make full payment of the net amount shown on a *tax invoice* then, without prejudice to the *shipper's* other rights, the *user* must pay interest on the unpaid amount, calculated daily at the *prescribed interest rate* from the due date until payment.
- (b) This clause does not limit ~~rule~~ clause 193A(2).

9.5 Disputed invoices

- (a) If a *user* disputes any amount or amounts set out in a *tax invoice*, then the *user* must within 15 *business days* after the date of the *tax invoice*, give notice in writing to the *shipper* that it disputes the amount or amounts and full details of the dispute.

10. GST

- (a) In this clause 10:
 - (i) words and expressions which are not defined in this agreement but which have a defined meaning in the *GST Law* have the same meaning as in the *GST Law*; and
 - (ii) “**GST Law**” has the meaning given to that expression in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).
- (b) Unless otherwise expressly stated, all prices or other sums payable or consideration to be provided under a *deemed contract* under this agreement are exclusive of GST.
- (c) The supply of a *contracted supply* by a *shipper* to a *user* is a taxable supply.
- (d) If GST is payable by:
 - (i) a supplier; or
 - (ii) by the representative *Scheme participant* ~~member~~ for a GST group of which the supplier is a *Scheme participant* ~~member~~,on any supply made under a *deemed contract* under this agreement, the recipient of the supply must pay to the supplier an amount equal to the GST payable on the supply.
- (e) The recipient must pay the amount referred to in clause 10(d):
 - (i) in addition to the consideration for the supply; and

- (ii) at the same time that the consideration for the supply must be provided under a *deemed contract* under this agreement.
- (f) The supplier must provide a tax invoice or an adjustment note to the recipient before the supplier is entitled to payment of the amount under clause 10(d).
- (g) The recipient may withhold payment of the amount under clause 19(d) until the supplier provides a tax invoice or an adjustment note, as appropriate.
- (h) If an adjustment event arises in respect of a taxable supply made by a supplier under a *deemed contract* under this agreement, the amount payable by the recipient under clause 10(d) must be recalculated to reflect the adjustment event and the recipient must make a payment to the supplier or the supplier must make a payment to the recipient, as the case requires.
- (i) Where a *deemed contract* under this agreement requires a person to pay or reimburse an expense or outgoing of another person, the amount to be paid or reimbursed by the first person will be the sum of:
 - (i) the amount of the expense or outgoing less any input tax credits in respect of the expense or outgoing to which the other person, or to which the representative [Scheme participant](#) ~~member~~ for a GST group of which the other person is a [Scheme participant](#) ~~member~~, is entitled; and
 - (ii) if the payment or reimbursement is subject to GST, an amount equal to that GST.

11. FORCE MAJEURE

- (a) **(Liability exclusion):** Neither *party* is liable to the other *party* for any loss incurred by that other *party* as a direct result of either *party* failing or being prevented, hindered or delayed in the performance of its liability under this agreement by reason of a *force majeure event*.
- (b) **(Notification):** The *party* affected by a *force majeure event* must as soon as practicable notify the other *party* in writing of:
 - (i) any anticipated delay due to that *force majeure event*;
 - (ii) details of the *force majeure event*;
 - (iii) the expected duration of the *force majeure event*; and
 - (iv) details of the steps being taken to overcome the *force majeure event*,
 and use all reasonable endeavours to perform its liability under this agreement.
- (c) **(Inability to pay excluded):** The inability to pay money, however caused, does not constitute a *force majeure event*.

12. REPRESENTATIONS

12.1 Representations

Each party represents to the other *party* that as at the date of this agreement:

- (a) **(corporate status)**: if the *party* is a corporation, that *party* is a corporation duly incorporated and validly existing under the *law* of the country or jurisdiction of its incorporation or registration;
- (b) **(corporate powers)**: if the *party* is a corporation, that *party* has the corporate power to own its assets and perform its obligations under this agreement and any business activity as contemplated at any time by this agreement;
- (c) **(legal compliance)**: the execution or performance of this agreement and a *deemed contract* by that *party* does not contravene any provision of:
 - (i) the constitution documents of that *party*;
 - (ii) any agreement created by that *party*;
 - (iii) any *law*; or
 - (iv) any *governmental consent* relating to that *party* or its assets; and
- (d) **(corporate compliance)**: that *party* has full power, and has procured all necessary corporate consents, for the execution by that *party* of this agreement;
- (e) there is no pending or threatened action or proceeding affecting the *shipper* or any of its related bodies corporate or any of their respective assets before a court, referee, *governmental agency*, commission, arbitrator or other tribunal which will, or might reasonably be expected to, materially affect its ability to perform its obligations under this agreement.

12.2 Application

- (a) **(Separate effect)**: Each representation in clause 12.1 is a separate representation, without its scope or meaning being limited or governed by any other such representation.
- (b) **(Repetition)**: The representations and warranties in clause 12.1 are made on and from the date this agreement starts, and are by force of this clause to be taken to be made anew on each day thereafter.

13. TERMINATION

13.1 No Default Termination

- (a) Neither *party* may terminate this agreement for default by the other *party*.
- (b) Nothing in clause 13.1(a) limits the other remedies that may be available to the parties.

13.2 Termination Effect

Termination of this agreement releases any *party* from any further performance of any liability under this agreement but does not:

- (a) **(continuing liability)**: affect any provision of this agreement expressed to operate or have effect subsequent to termination; or
- (b) **(accrued rights)**: have any prejudicial effect on any accrued right of any *party* accruing prior to termination.

14. LIABILITY

- (1) ~~Rules~~ **Clauses** 376 to 377 apply as terms of this agreement and a *deemed contract* with appropriate modifications, including by replacing each reference to “these ~~rules~~ **procedures**” with, as appropriate:
 - (c) a reference to “this agreement or a *deemed contract*”; or
 - (d) a reference to “this *deemed contract*”.
- (3) ~~Rule~~ **Clause** 377A applies as a term of this agreement and a *deemed contract* with appropriate modifications, including by replacing each reference to “these ~~rules~~ **procedures**” with, as appropriate:
 - (a) a reference to “the ~~rules~~ **procedures**, this agreement or a *deemed contract*”; or
 - (b) a reference to “the ~~rules~~ **procedures** or this *deemed contract*”.

15. DISPUTE RESOLUTION

15.1 Disputes

- (a) This provision applies to any dispute or difference (“**dispute**”) arising between the *parties* in relation to:
- (b) **(interpretation)**: this agreement or its interpretation;
- (c) **(rights)**: any right or liability of any *party* under this agreement or a *deemed contract*; or
- (d) **(action)**: the performance of any action by any *party* under or arising out of this agreement or a *deemed contract*, whether prior or subsequent to its termination.

15.2 Dispute Negotiation

- (a) **(Restriction)**: Except in the case of a *party* seeking urgent interlocutory relief, a *party* must not refer a *dispute* to litigation or arbitration under this agreement, unless that *party* has complied with this provision.
- (b) **(Dispute notification)**: A *party* claiming that a *dispute* has arisen must notify the other *party* specifying details of the *dispute*.

- (c) **(Negotiation):** Each *party* must refer a *dispute* to a senior officer for consideration and use its best efforts to resolve the *dispute* through negotiation within 5 *business days* following the *dispute* notification or longer period if agreed between the *parties*.
- (d) **(Referral):** Each *party* must refer the *dispute* to its chief executive officer, in the event that the senior officers of the *parties* fail to resolve the *dispute* within the specified period.
- (e) **(Mediation):** Each *party* must, following reference to its chief executive officer, use its best efforts to resolve the *dispute* by agreement or through an agreed mediation procedure.
- (f) **(Process termination):** A *party*, in compliance with this provision, may terminate the *dispute* resolution process by notice to the other *party* at any time after 5 *business days* following reference of the *dispute* to its chief executive officer.
- (g) **(Restriction release):** A *party* is not required to comply with this provision in relation to any *dispute* where the other *party* is in default under this provision in relation to that *dispute*.

15.3 Continued Performance

- (a) The *parties* must continue to perform this agreement and any *deemed contracts* (including any *deemed contract* arising from a ~~rule~~[clause](#) 192(2) notice given after notification of the *dispute*), despite and during any *dispute* negotiation or resolution being conducted under this provision.

16. COSTS

Each *party* must pay its own costs in relation to:

- (a) **(documentation):** the negotiation, preparation, execution, performance, amendment or registration of, or any consent given or made; and
- (b) **(performance):** the performance of any action by that *party* in compliance with any liability arising,

under this agreement or a *deemed contract*, or any agreement or document executed or effected under this agreement, unless this agreement provides otherwise.

17. DUTIES

The *user* must promptly within the initial applicable period prescribed by *law* pay any levy, deduction, charge, tax, impost or other duty payable in relation to the execution, performance and registration of this agreement, or any agreement or document executed or effected under this agreement.

18. ASSIGNMENT

18.1 Shipper Assignment

The *shipper* must not at any time during the continuance of this agreement in relation to the supply of the *contracted supply*, without the prior consent of the *user*:

- (a) **(rights)**: transfer, or create any security interest affecting or relating to, all or any part of this agreement or a *deemed contract*, or any right of the *shipper* under this agreement or a *deemed contract*;
- (b) **(subcontracts)**: create any subcontract relating to the performance of all or any of the *shipper's* obligations under this agreement or a *deemed contract*; or
- (c) **(liabilities)**: novate or transfer this agreement or a *deemed contract*, or any liability of the *shipper* under this agreement or a *deemed contract*.

19. NOTICES

A notice given by a person under this agreement or a *deemed contract* is validly given if it is given in accordance with the notice provisions of the ~~rules~~ [procedures](#).

20. GOVERNING LAW AND JURISDICTION

- (a) This agreement is governed by, and construed in, each State by the *laws* of the State.
- (b) Any legal action in relation to this agreement against any *party* or its property may be brought in a State in any court of competent jurisdiction in the State.
- (c) Each *party* irrevocably, generally and unconditionally submits to the non-exclusive jurisdiction of any court specified in this clause 19 in relation to both itself and its property.

21. GENERAL PROVISIONS

21.1 Contractual Relationship

- (a) **(Independent contractor)**: The *shipper* acts in the capacity of an independent contractor, as between the *shipper* and the *user*, in the performance of any *deemed contract* or any liability under this agreement.
- (b) **(Exclusions)**: This agreement does not create, and must not be construed to create, any express or implied relationship between the *user* and the *shipper* of:
 - (i) employment,
 - (ii) principal and agency;
 - (iii) partnership; or
 - (iv) joint venture.

21.2 Amendments

Any amendment to this agreement has no effect unless in writing and executed by the *parties*.

21.3 Third Parties

This agreement confers rights only upon a person expressed to be a party, and not upon any other person.

21.4 Pre-Contractual Negotiation

This agreement:

- (a) **(entire agreement)**: expresses and incorporates the entire agreement between the *parties* in relation to its subject-matter, and all the terms of that agreement; and
- (b) **(collateral agreement)**: supersedes and excludes any prior or collateral negotiation, understanding, communication or agreement by or between the *parties* in relation to that subject-matter or any term of that agreement.

21.5 Further Assurance

Each party must execute any document and perform any action necessary to give full effect to this agreement, whether prior or subsequent to performance of this agreement.

21.6 Continuing Performance

- (a) **(Merger exclusion)**: The provisions of this agreement do not merge with any action performed or document executed by any *party* for the purposes of performance of this agreement.
- (b) **(Representation)**: Any representation in this agreement survives the execution of any document for the purposes of, and continues subsequent to, performance of this agreement.
- (c) **(Indemnity)**: Any indemnity agreed by any *party* under this agreement:
 - (i) constitutes a liability of that *party* separate and independent from any other liability of that *party* under this agreement or any other agreement; and
 - (ii) survives and continues subsequent to performance of this agreement.

21.7 Waivers

Any failure by any party to exercise any right under this agreement does not operate as a waiver and the single or partial exercise of any right by that party does not preclude any other or further exercise of that or any other right by that party.

21.8 Remedies

The rights of a party under this agreement are cumulative and not exclusive of any rights provided by law.

21.9 Severability

Any provision of this agreement which is invalid ~~in any jurisdiction~~ is invalid ~~in that jurisdiction~~ to that extent, without invalidating or affecting the remaining provisions of this agreement ~~or the validity of that provision in any other jurisdiction~~.

Appendix 10 – Swing Service Causation Compensation Terms

The following provisions govern the payment of a swing service causation compensation payment determined under [rule clause 300A](#). They have effect as a contract between the compensating person and a recipient user.

1. INTERPRETATION

1.1 Definitions

- (a) Unless the context otherwise requires, in these *terms*:
 - (i) the definitions and [rules procedures](#) of interpretation set out in the [rules procedures](#) apply; and
 - (ii) the definitions embedded in this Appendix 10 apply.
- (b) Unless the context otherwise requires, in these *terms* the following definitions also apply:

“force majeure event” in relation to any person, means any fact beyond the reasonable control of that person which prevents, hinders or delays that person from or in the performance of any liability of that person under any agreement, but excluding any fact resulting from any action, or omission or default of that person, or any agent of that person.

“gas day” has the meaning given to it in the [rules procedures](#).

“gate point” has the meaning given to it in the [rules procedures](#).

“governmental agency” means the Crown, any government, any governmental ministry or department, or any Crown, governmental, semi-governmental, statutory, parliamentary, administrative, fiscal, public, federal, state, national, municipal, local, judicial or regulatory entity, agency, instrumentality, utility, authority, court, commission, body or tribunal.

“governmental consent” means:

- (a) any consent, authorisation, registration, filing, lodgement, agreement, notarisation, certificate, permission, licence, approval, authority or exemption from, by or with any *governmental agency*;
- (b) in relation to any act, matter or thing which would be legally prohibited or restricted in whole or in part if any *governmental agency* intervenes or acts in any manner within a specified period after its lodgement, filing, registration or notification, the expiry of that period without intervention or action;
- (c) in relation to any present or future agreement or document created or action performed by any person, means any *governmental consent* within any previous meaning necessary or desirable for the execution, performance, validity,

enforceability, priority effectiveness or transfer of any asset of or under that agreement, document or action;

- (d) in relation to any business activity at any time, any *governmental consent* within any previous meaning necessary or desirable for the performance of that business activity at that time; and
- (e) in relation to any present or future agreement, document, consent or asset created or held by any person at any time, means any *governmental consent* within any previous meaning necessary or desirable to prevent default, invalidation or a prejudicial effect under or in relation to that agreement, document, consent or asset at that time.

“insolvency event” in relation to any person means:

- (a) **(attachment)**: the fact of any attachment against any asset of the person;
- (b) **(security enforcement)**: the enforceability of any security interest over any asset of the person securing payment for any amount subsequent to the occurrence of any default event under that security interest;
- (c) **(receivership)**: the appointment of any receiver over, or possession taken by any secured party of, any asset of the person;
- (d) **(insolvency)**: cessation of payment generally by the person or the inability of the person, or the other *party* to these *terms* (**“other party”**) reasonably deciding that the person is unable, to pay all its debts as and when they become due and payable;
- (e) **(administration)**: the appointment of any administrator of the person;
- (f) **(liquidation)**: any legal action, not being in the decision of the other *party* a disputed action, being commenced, judicial order made or resolution passed for the liquidation of the person; or
- (g) **(debt arrangement)**: the creation by the person of any debt arrangement with its creditors generally or any class of creditors.

“law” includes present and future:

- (a) written and unwritten laws of the Commonwealth, Western Australia and of any other State, Territory or foreign country having jurisdiction over the subject matter of these *terms*; and
- (b) judgments, determinations, decisions, rulings, directions, notices, regulations, by-laws, statutory instruments, Codes of Practice, Australian Standards or orders given or made under any of those laws or by any *governmental agency* or authority.

“notification day” means the day ~~REMC~~~~Co~~AEMO gives a notice under ~~rule~~~~clause~~ 300A(10) that it has made a determination in respect of a *compensating person*.

“**parties**” means the *compensating person* and the *recipient user*, and “**party**” means any of them.

“**prescribed interest rate**” means five annual percentage points above the Reserve Bank of Australia cash rate applying from time to time.

“**REMC**~~Co~~**AEMO**” has the meaning given to it in the ~~rules~~**procedures**.

“~~rules~~**procedures**” means the ~~REMC~~**Co-Retail** Market ~~Rules~~**Procedures** as in force on the *notification day*, and a reference to “~~rule~~**clause**” followed by a number is a reference to the ~~rule~~**clause** so numbered in the ~~rules~~**procedures** as at the *notification day* (as the ~~rule~~**clause** is amended, substituted and renumbered from time to time).

“**terms**” means the terms contained in this Appendix 10 governing the payment of *swing service causation compensation payments*, determined under ~~rule~~**clause** 300A.

1.2 Interpretational Rules~~Procedures~~

Rules of interpretation apply to these *terms* as specified in this provision, unless the context otherwise requires:

- (a) (**headings**): headings and subheadings are for convenience only and do not affect interpretation;
- (b) (**persons**): a reference to “**person**” includes a public body, company, or association or body of persons, corporate or unincorporated;
- (c) (**plurality**): words denoting the singular number include the plural, and vice versa;
- (d) (**laws**): a reference to a *law* includes any amendment or re-enactment of it that is for the time being in force, and includes all *laws* made under it from time to time;
- (e) (**gender**): words denoting any gender include all genders;
- (f) (**variations**): any grammatical or linguistic variation of a defined word or expression has a corresponding meaning;
- (g) (**parties**): any reference to a party to any agreement or document includes its successors and permitted assigns;
- (h) (**amendments**): any reference to any agreement or document includes that agreement or document as amended at any time;
- (i) (**references**): any reference to a clause, schedule, annexure, exhibit or attachment is a reference to a clause of, or schedule, annexure, exhibit or attachment to, these *terms*;
- (j) (**specifics**): any specific reference to or listing of items following the word “**including**” does not exclude application to other items, whether or not in the same class, category or genus as any specified or listed items;

- (k) **(time)**: the expression “**at any time**” includes reference to past, present and future time and the performance of any action from time to time and any liability at all times during any specified period;
- (l) **(under)**: the word “**under**” includes “by”, “by virtue of”, “pursuant to” and “in accordance with”;
- (m) **(consents)**: the expression “**prior consent**”, in relation to any provision which prohibits or restricts any action by any *party* except with the prior consent of any other *party*, means the prior written consent of that other *party*, and includes reference to the fact that any consent may in the absolute and uncontrolled decision of that other *party* be refused or given subject to the performance of any condition or other provision; and
- (n) **(italics)**: where italic typeface has been applied to some words and expressions, it is solely to indicate that those words or phrases may be defined in clause 1.1 or elsewhere, and in interpreting these ~~rules~~*procedures*, the fact that italic typeface has or has not been applied to a word or expression is to be disregarded.

2. ~~REMC~~*oAEMO*

2.1 ~~REMC~~*oAEMO* acts as independent expert in issuing agreement note

~~REMC~~*oAEMO* acts under this Appendix 10 and under ~~rule~~*clause* 300A as an independent expert, and not as agent for the *compensating person* or the *recipient user*.

2.2 ~~REMC~~*oAEMO*'s Liability

- (a) Other than in respect of ~~REMC~~*oAEMO*'s wilful misconduct or fraud, ~~REMC~~*oAEMO* is not liable to the *parties* or any of them for anything done or not done under this Appendix 10, whether negligently otherwise.
- (b) Without limiting clause (a), in no circumstances (including ~~REMC~~*oAEMO*'s negligence) is ~~REMC~~*oAEMO* to be liable:
 - (i) to pay part or all the *swing service compensation payment*; or
 - (ii) in respect of the failure to do so.
- (c) The *parties* release and indemnify ~~REMC~~*oAEMO* from and against any claims for breach of agreement, negligence or other misconduct (other than wilful misconduct and fraud) in connection with anything done or not done by ~~REMC~~*oAEMO* in the course of discharging, or not discharging, its obligations under this Appendix 10.

2.3 No partnership etc.

Nothing in these *terms* or a notice under ~~rule~~*clause* 300A makes ~~REMC~~*oAEMO* an employee, joint venturer or partner of the *compensating person* or the *recipient user*.

2.4 No remuneration

REMCeAEMO is not entitled under this agreement to any remuneration or reimbursement of costs for performing its obligations under this agreement.

3. INVOICING AND PAYMENT

3.1 Invoicing frequency

The recipient user may issue an invoice to the compensating person for the swing service compensation payment forthwith after the end of the notification day.

3.2 Content of invoice

The *recipient user's* invoice must show at least:

- (a) the date of the *notification day*;
- (b) the date of the *historical gas day i* in respect of which REMCeAEMO made the determination under ruleclause 300A(1); and
- (c) the amount of the swing service compensation payment.

3.3 Payment

A compensating person must, within 10 business days after receipt of an invoice issued under clause 3.2, pay to the recipient user the net amount shown on the invoice as payable, regardless of whether the invoice is disputed under clause 3.5.

3.4 Default in payment

- (a) Subject to clause 3.5, if a *compensating person* fails by the relevant due date to make full payment of the net amount shown on an invoice then, without prejudice to the *recipient user's* other rights, the *compensating person* must pay interest on the unpaid amount, calculated daily at the *prescribed interest rate* from the due date until payment.
- (b) This clause does not limit ruleclause 300A(12).

3.5 Disputed invoices

If a compensating person disputes any amount or amounts set out in an invoice, then the compensating person must within 15 business days after the date of the invoice, give notice in writing to the recipient user that it disputes the amount or amounts and full details of the dispute.

4. GST

- (a) In this clause 4:
 - (i) words and expressions which are not defined in these *terms* but which have a defined meaning in the *GST Law* have the same meaning as in the *GST Law*; and

- (ii) **“GST Law”** has the meaning given to that expression in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).
- (b) Unless otherwise expressly stated, all prices or other sums payable or consideration to be provided under these *terms* are exclusive of GST.
- (c) If GST is payable by:
 - (i) a supplier; or
 - (ii) by the representative Scheme participant ~~member~~ for a GST group of which the supplier is a Scheme participant ~~member~~,
on any supply made under these *terms*, the recipient of the supply must pay to the supplier an amount equal to the GST payable on the supply.
- (d) The recipient must pay the amount referred to in clause 4(c):
 - (i) in addition to the consideration for the supply; and
 - (ii) at the same time that the consideration for the supply must be provided under these *terms*.
- (e) The supplier must provide a tax invoice or an adjustment note to the recipient before the supplier is entitled to payment of the amount under clause 4(c).
- (f) The recipient may withhold payment of the amount under clause 4(c) until the supplier provides a tax invoice or an adjustment note, as appropriate.
- (g) If an adjustment event arises in respect of a taxable supply made by a supplier under these *terms*, the amount payable by the recipient under clause 4(c) must be recalculated to reflect the adjustment event and the recipient must make a payment to the supplier or the supplier must make a payment to the recipient, as the case requires.
- (h) Where these *terms* require a person to pay or reimburse an expense or outgoing of another person, the amount to be paid or reimbursed by the first person will be the sum of:
 - (i) the amount of the expense or outgoing less any input tax credits in respect of the expense or outgoing to which the other person, or to which the representative Scheme participants ~~member~~ for a GST group of which the other person is a Scheme participants ~~member~~, is entitled; and
 - (ii) if the payment or reimbursement is subject to GST, an amount equal to that GST.

5. DISPUTE RESOLUTION

5.1 Disputes

This provision applies to any dispute or difference (“dispute”) arising between the parties in relation to:

- (a) **(interpretation)**: these *terms* or their interpretation;
- (b) **(rights)**: any right or liability of any *party* under these *terms*; or
- (c) **(action)**: the performance of any action by any *party* under or arising out of these *terms*, whether prior or subsequent to its termination.

5.2 Dispute Negotiation

- (a) **(Restriction)**: Except in the case of a *party* seeking urgent interlocutory relief, a *party* must not refer a *dispute* to litigation or arbitration under these *terms*, unless that *party* has complied with this provision.
- (b) **(Dispute notification)**: A *party* claiming that a *dispute* has arisen must notify the other *party* specifying details of the *dispute*.
- (c) **(Negotiation)**: Each *party* must refer a *dispute* to a senior officer for consideration and use its best efforts to resolve the *dispute* through negotiation within 5 *business days* following the *dispute* notification or longer period if agreed between the *parties*.
- (d) **(Referral)**: Each *party* must refer the *dispute* to its chief executive officer, in the event that the senior officers of the *parties* fail to resolve the *dispute* within the specified period.
- (e) **(Mediation)**: Each *party* must, following reference to its chief executive officer, use its best efforts to resolve the *dispute* by agreement or through an agreed mediation procedure.
- (f) **(Process termination)**: A *party* in compliance with this provision may terminate the *dispute* resolution process by notice to the other *party* at any time after 5 *business days* following reference of the *dispute* to its chief executive officer.
- (g) **(Restriction release)**: A *party* is not required to comply with this provision in relation to any *dispute* where the other *party* is in default under this provision in relation to that *dispute*.

5.3 Continued Performance

The *parties* must continue to perform their obligations under these *terms* despite and during any *dispute* negotiation or resolution being conducted under this provision.

6. GOVERNING LAW AND JURISDICTION

- (a) These terms are governed by, and construed in, each State by the *laws* of the State.
- (b) Any legal action in relation to these *terms* against any *party* or its property may be brought in a State in any court of competent jurisdiction in the State.
- (c) Each *party* irrevocably, generally and unconditionally submits to the non-exclusive jurisdiction of any court specified in this clause 6 in relation to both itself and its property.

~~—There is no Appendix 11~~

|

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Appendix 11—~~There is no Appendix 12~~



Specification Pack Usage Guidelines

For the SA and WA Gas Retail Markets

Version: 6.12
Last Update: 1 January 2016 [TBA](#)

Version History

Version	Date	Author(s)	Changes and Comments
0.1	18/11/03	B. Eaves	First version
1.0	14/11/03	D Bone	Updated for consistency
1.1	28/11/03	D Bone	
2.9	19/01/04	Z Gemmell	Updated for division of REMCo Specification Pack and REMCo Information Pack.
3.0	6/05/04	Z Gemmell	Updated to align with REMCo Specification Pack and REMCo Information Pack v3.0
4.0	13/07/04	Z Gemmell	Updated to remove information relating to REMCo Information Pack v4.0 in accordance with Rule Change C05/04S
5.0	1/10/10	T Sheridan	Updated to reflect the relevant Market Operator requirements following the transfer of REMCo's SA retail market operations to AEMO
5.1	20/12/10	D. McGowan	Updated to include new version 4.2 of the ICD.
5.2	1/08/11	D. McGowan	Updated to include new version 4.3 of the ICD Updated to include new version 5.3 of the FRC B2M-B2B Hub System Specifications. Updated to include correction to the version number for the following documents: FRC B2B System Interface Definitions; FRC CSV Data Format Specification; B2B Service Order Specifications, Part 1 and Part 2,
5.3	30/07/12	S. Macri	Update to include customer classification. SA Only. See IN027/11
5.4	1/2/13	S. Macri	Update to include SA Only changes: <ul style="list-style-type: none"> • IN008/10 – South Australian Crossed Meter Process • IN008/12 – South Australian Tariff D incorrect referencing • IN011/11 – South Australian MIRN Checksum update • IN006/12 – South Australian RoLR Requirement
5.5	1/10/13	D, McGowan	Update to include SA and WA changes: <ul style="list-style-type: none"> • IN008/13 (SA) and C01/13S (WA) Notification Period for New GBO ids and Hub ids. Changes to Connectivity and Technical Certification document.
5.6	1/01/14	D. McGowan	Updated to include: <ul style="list-style-type: none"> • IN026/12 – SA RoLR Automation • IN015/13 – (Residual RMP and Spec Pack changes for SA RoLR) • IN004/12 – (Redundant provision and minor GIP and Spec Pack changes)
5.7	1/07/14	T. Sheridan	Updated to include: <ul style="list-style-type: none"> • IN039/12 – MHA/MRT Service Orders

Specification Pack Usage Guidelines

			<ul style="list-style-type: none"> IN017/13 – Amendments from Service Orders Road Map Review
5.8	24/04/15	T. Sheridan	Updated to include WA Only change: <ul style="list-style-type: none"> C03/14S – Bulk Energy History Requests
5.9	17/05/15	T. Sheridan	Updated to include: <ul style="list-style-type: none"> IN023/14 (Documentation changes for the FRC Hub Upgrade);
6.0	14/09/15	D. McGowan	Update to include SA only changes <ul style="list-style-type: none"> IN006/09 Service Order Response Changes IN012/11 Process to Identify Previous FRO
6.1	01/01/16	D. Martin	Update to include WA only change: <ul style="list-style-type: none"> C04/15S - Hansen Reference in the Specification Pack
6.2	TBA	D. McGowan	<p>Update to include:</p> <p>WA</p> <ul style="list-style-type: none"> C02/16C – REMCo to AEMO transition changes. <p>SA</p> <ul style="list-style-type: none"> IN029/16 – REMCo to AEMO transition

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Preamble:

This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes.

(a) Several terms have been changed to a general term where possible with a market specific definition; and

(b) In the interests of keeping new terms and acronyms to a minimum, the original word has been italicised where possible to indicate that its definition again depends on its location.

This approach is to promote interchangeability in these documents for the benefit of stakeholders from both states.

The terms and their relevant definitions are as follows:

Term:	South Australian Market Definition:	Western Australian Market Definition:
Market Operator	AEMO	REMCo
Retail Market Rules (RMR)	Retail Market Procedures	Retail Market Rules

For more information please contact the Market Operator in your state:

	AEMO	REMCo
Website:	http://www.aemo.com.au	http://www.remco.net.au

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1. Introduction

1.1. Purpose

The purpose of this "Usage Guidelines" document is to present an overview of the various documents that form the [AEMO](#) Specification Pack for the South Australian and Western Australian gas retail markets, and the purpose of each of the documents. Some guidance is provided on the way in which the documents can be used.

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1.2. Audience

The document has been written for the business and IT personnel within market participant organisations and the Market Operator, who will be using the [AEMO](#) Specification Pack. It is expected that the audience will have some basic understanding how the Gas Retail Market operates in South Australia and Western Australia.

1.3. Format of this Document

Following this introduction, the Usage Guidelines present an overview of the documents that form the [AEMO](#) Specification Pack.

The final section in the main body of the document provides details of other related documents to which the audience may wish to refer.

1.4. Management of the [AEMO](#) Specification Pack

The Specification Pack will be managed by ~~the relevant Market Operator~~ [AEMO](#) and amendments to the [AEMO](#) Specification Pack will be made as required using the relevant jurisdictions change control procedure.

2. Overview of the [AEMO](#) Specification Pack

The following table provides an overview of the [AEMO](#) Specification Pack. The documents are provided in a directory structure as follows:

Main Directory	Sub-Directory	Documents	Version
Specification Pack	1. Usage Guidelines	Specification Pack Usage Guidelines	6. 0 <u>2</u>
	2. Interface Control Document (ICD)	Interface Control Document	4. 5 <u>6</u>
	3. B2B System Interface Definitions	FRC B2B System Interface Definitions	4.0 <u>3</u> -9
	4. Transport Layer	FRC B2M-B2B Hub System Specifications	3. 7 <u>8</u>
		FRC B2M-B2B Hub System Architecture	3. 4 <u>5</u>
	5. CSV File Format	FRC CSV Data Format Specification	3. 2 <u>3</u>
	6. Connectivity and Technical Certification	Connectivity Testing and Technical Certification	3. 4 <u>5</u>
	7. Readiness Criteria	Readiness Criteria	2. 1 <u>2</u>
	8. Service Order Specifications	B2B Service Order Specifications, Part 1 and Part 2,	2. 2 <u>3</u> 3.3
	9. aseXML Schemas	The complete set of aseXML schemas and examples which participants have subscribed to for SA / WA Gas is available from www.aemo.com.au/asexml	SA – R29 WA – R13

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Figure 1 Contents of [AEMO](#) Specification Pack

3. [AEMO](#) Specification Pack

3.1. *Usage Guidelines*

The purpose of this Usage Guidelines document is to present an overview of the various documents that form the [AEMO](#) Specification Pack and the purpose of each of these documents.

3.2. *Interface Control Document (ICD)*

The ICD document provides a baseline definition of the GRMS build against the Business Specification per the Retail Market [Procedures](#)~~Rules~~ (RMRP).

The ICD describes in detail the physical transactions to be transferred between the Gas Retail Market System (GRMS) and the market participants of South Australia and Western Australia to support the ~~Gas Retail Market Rules~~[RMP](#).

The ICD provides sufficient detail to market participants in the SA and WA jurisdictions to enable development of software interfaces to support their FRC operations in the two markets. This document is to be used as the primary build document with the Business Specification document for the GRMS system.

The ICD also contains detailed definitions of data elements used in transactions, event codes and provides a cross-reference between the logical flows listed in the Consolidated Transaction Table and the corresponding physical aseXML and csv transactions.

This document also describes the mapping of the aseXML data items to the latest aseXML compliant schema.

3.3. *B2B System Interface Definitions*

The purpose of the B2B System Interface Definitions document is to define the behaviour of the SA/WA market business and IT systems. The definitions identify the manner in which the participants in the South Australia and Western Australia Gas Market will communicate with each other to manage their day-to-day business.

The document presents 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.

The specific interfaces are presented under the following headings:

- Meter Reads – Energy and Consumption
- Service Orders
- MIRN Discovery
- Route and Site Information
- Network Billing.

The document also contains detailed definitions of data elements used in transactions, event codes and provides a cross-reference between the logical flows listed in the Consolidated Transaction Table and the corresponding physical aseXML transactions.

The B2B System Interface Definitions is based on the AEMO document, FRC B2B System Interface Definitions. For background details on the methodology and formats used in this document, refer to Participant Build Pack Usage Guide from AEMO.

3.4. *Transport Layer*

3.4.1. **FRC B2M-B2B Hub System Architecture**

The FRC B2M-B2B Hub System Architecture document provides a comprehensive architectural overview of the FRC transaction and messaging system based on the use of AEMO's FRC Hub.

The document contains the significant architectural elements of that System which will be used for communication between participants and the Gas Retail Market System (GRMS – B2M) and also for B2B communications. The document provides details of:

Architecture - Provides an overview and a definition of the transport and messaging architecture.

Application Layer – Describes functional and operational aspects of the aseXML Transaction Application. Topics include the obligations of the application, schema and schema validation, and interoperability. The section also describes the participant Communications Infrastructure, Public Key Infrastructure and the Message Service Interface, which will mediate between the Message Service Handler and these other applications / infrastructure elements.

Message Layer – Provides a description of the Message Service Handler (MSH) that is the centrepiece of the transaction and messaging system. The MSH is an implementation of the ebXML Message Service Specification. Packaging, routing, and delivery are dealt with in detail. The handler services, being Message Status Request, and MSH Ping are also described.

Transport Layer – Describes the interface between the Message Service Handler and transport protocols to be supported. Network infrastructure is outlined including the system topology, gateways, the hub, and expected network traffic.

Security – Provides participants with an understanding of the security issues involved as well as the expected implementation detail, and participant requirements. Some details, which would themselves compromise the security approach, have been excluded. The three sections are Key Management, Encryption, and Digital Signature.

3.4.2. **FRC B2M-B2B Hub System Specifications**

The FRC B2M-B2B Hub System Specifications document provides the configuration and control settings that apply to the transaction and messaging system.

These specifications comprise standard service names, time intervals for message timeouts, standard participant identifiers, XML header mappings, and specific FBS port and network addressing details.

These specifications are the variable implementation details that apply to the FBS architecture, as defined in the FRC B2M-B2B Hub System Architecture.

3.5. CSV File Format

This document defines format of Comma-Separated Values (CSV) files for transactions that are to be exchanged between Market Participants.

3.6. Connectivity Testing and Technical Certification

The Connectivity Testing and Technical Certification document describes the process through which organisations wishing to participate in the SA and WA Gas Retail Markets can achieve technical certification from the relevant Market Operator.

Technical Certification includes most activities that would be termed connectivity testing. However, some interfaces are not covered by Technical Certification. This document therefore also provides an overview of those areas of Connectivity Testing not covered by Technical Certification.

The document is in three parts:

1. The certification process relating to transactions routed via the FRC Hub;
2. The certification process relating to the automated electronic file interface (FTP) between market participants' gateways and the gas retail market system (GRMS) operated by REMCoAEMO for the SA and WA Gas Retail Markets; and
3. Connectivity Testing for those interfaces not addressed in Technical Certification.

3.7. Readiness Criteria

The readiness criteria document sets out the criteria that will form the basis of REMCoAEMO's assessment of participants' readiness pursuant to the issuance of a GBO Identification in accordance with rule 21B of the RMRP.

3.8. Service Order Specifications

The B2B Service Order Specifications define the detailed usage of Job Enquiry Codes and Job Completion Codes. The Service Order Specifications are in two parts:

1. Detailed definitions of usage of data elements for different Job Enquiry Codes (Word document).
2. Definitions of Job Enquiry Codes and the associated Job Completion Codes (Excel file)

3.9. aseXML schema

Transactions are conducted on the basis of a set of industry rules encapsulated in the aseXML schema and expressed in aseXML documents. The complete set of aseXML schemas and examples which participants have subscribed to for SA / WA Gas is available from <http://www.aemo.com.au/About-the-Industry/Information-Systems/aseXML-Standards/aseXML-Schemas>.

4. Other Related Documents

The audience for the [AEMO](#) Specification Pack may also wish to refer to the following documents:

- Guidelines for Development of a Standard for Energy Transactions in XML (aseXML), published by AEMO and available at www.aemo.com.au.

aseXML schema available at <http://www.aemo.com.au/About-the-Industry/Information-Systems/aseXML-Standards/aseXML-Schemas>

SAWA Gas Retail Market Systems

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Interface Control Document (ICD)

Client : ~~Retail Energy Market Company Limited (REMC_o)~~
and Australian Energy Market Operator Limited (AEMO)

Contract number : ~~REMC_o~~-SOSA ([WA](#)) dated July 2011
~~AEMO~~-SOSA ([SA](#)) dated July 2011

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Project manager : Cathy Langman

Distribution :

Prepared by : GRMS Service Delivery Team

Reviewed (Logica) : Bob Manning
Robert Gubbins
.....

Approved (Logica) : Robert Gubbins

Authorised (Logica) : Cathy Langman

Agreed (Client) :
.....

Field Code Changed

Disclaimer/Preamble

This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes:

- (a) Several terms have been changed to a general term where possible with a market specific definition, and;
- (b) in the interests of keeping new terms and acronyms to a minimum, the original word has been *italicised* where possible to indicate that its definition again depends on its location.

This approach is to promote interchangeability in these documents for the benefit of stakeholders from both states.

The terms and there relevant definitions are as follows:

Term	South Australian Market Definition:	West Australian Market Definition:
Market Operator	AEMO	REMCo
Retail Market Rules (RMR)	Retail Market Procedures (South Australia)	Retail Market Rules (Western Australia)

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1 INTRODUCTION

The Gas Retail Market System (GRMS) will support the Retail Market Procedures [RMP] for South Australia and ~~the Retail Market Rules [RMR] for~~ Western Australia and facilitate the operation of two contestable retail gas markets in these states. The operation of these markets will require two way electronic communications between the GRMS and each of the market participants. This document will define the required format and the data that will be valid for such communication.

1.1 Purpose

This document describes in detail the data items required to be transferred between the external interfaces of the Gas Retail Market System (GRMS) and the market participants of South Australia and Western Australia to support the Gas Retail Market ~~Procedures~~ ~~Rules~~ [RMP].

The purpose of this description is to provide sufficient detail to all market participants in the two state Market to enable them to develop software systems to support their operations in the two markets. Similarly this document will be used as input to the enhancements of the GRMS.

This document will also describe the mapping of these data items to the latest aseXML compliant schema where possible. Where a suitable mapping to the aseXML schema cannot be found suggested changes to the aseXML schema will be described. These changes will form the basis of change requests to be submitted to the aseXML working group.

For South Australia, this document is the resultant output from a number of changes to the GRMS as a result of the introduction of the Short Term Trading Market [STTM]. These changes to the GRMS were developed by AEMO and market participants via consultation with the ~~South Australian~~ Gas Retail Consultative Forum [GRCF-~~S~~].

For Western Australia, this document is the resultant output of discussions between ~~the Market Operator~~ ~~AEMO~~ and Market participants and minimal changes have been made to the definitive Business Specification [BS] and Interface Control Document [ICD] in respect of the operation of the GRMS in Western Australia.

While the document was designed to be read with the Business Specification, the document structure has been altered to assist the participants with a range of preferences leaning towards existing participant documentation. The document is structured in major functional groups (e.g. Registry, Meter Reading etc) and then functional subgroups (e.g. Transfers, New Connections etc).

Below the functional subgroup level the document aims to structure itself around the physical transactions and then to the logical process flows, as described in the BS, that use the physical transactions. Some physical transactions are repeated to retain the context of the functional grouping and subgrouping.

This document will be agreed with ~~the Market Operator~~ [AEMO](#) after consultation with the market participants in both South Australia and Western Australia.

1.2 Scope

This Interface Control Document (ICD) does not document any flow of data which does not include the GRMS as either a sender or a recipient of such a data flow.

In its definitive state this document will be split into three broad, but distinct areas;

1. logical descriptions of a data flow providing at a logical level the data required to support specific business transactions and the relationships between data items within those data flows
2. physical definitions of the data flow describing the physical format of external data flows based on A Standard for Australian Energy Transactions [aseXML]
3. a description of the csv transportation details that participants will need to use in order to physically communicate with the GRMS. The ebXML / aseXML transport is outside the scope of this document.

1.3 Change control

Initially this document was updated as the direct result of the discussions carried out with ~~the Market Operator~~ [AEMO](#) and market participants in a number of workshops. After each workshop, as issues were identified and addressed any required document changes were made and this document was re-issued in its entirety.

At the end of the workshops when all outstanding issues have been resolved and the document has been formally agreed this ICD will be re-issued and made *definitive*. At this point, any additional changes required to the content of this document will follow the Logica change management process.

Where system changes are not dictated by ~~rule~~ [Procedure](#) changes (and hence covered by a Contract Change Request), change requests against the ICD are to be raised through ~~the Market Operator~~ [AEMO](#).

1.4 Summary

This document describes the External interfaces involving the Gas Retail Market System (GRMS) in the Gas Retail Markets of South Australia and Western Australia

1.5 Amendment History

Date	Issue	Change summary	Initis.
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14/08/2003	0.01	Document template creation.	MGB
20/08/2003	0.02	Addition of Logical Flows and Data Items – second pass.	MGB
22/08/2003	0.03	Baseline for parallel updates.	MGB
27/08/2003	0.04	Baseline for internal review	MGB
28/08/2003	0.05	Added updates from RMRWG	JB
28/08/2003	0.06	Incorporated notices and electronic file headings and logical flows. Incorporate new flows identified in RMRWG No.18. Incorporate BAR flows and Data Items.	MGB
29/08/2003	0.07	Baselined for initial participant review.	MGB
30/08/2003	0.08	Error correction and re-work.	MGB
08/09/2003	0.09	Synchronised with the [BS] Added short names. Clarified receipt id will not be used in ACK. Allocated CATS transactions to transfer (as per Origin and Envestra comments)	MGBT B/ MV
09/09/2003	0.10	Added in data items for prospective aseXML transactions	MGB
16/09/2003	0.11	Incorporated aseXML transaction details and mappings.	MGB
17/09/2003	0.12	Review and updates, added section detail on transport interfaces.	MGB/ KQ/ TB/ MV/
17/09/2003	0.13	Merged in CSV Data Dictionary	MGB
17/09/2003	0.14	Incorporate final review comments and tidy up.	MGB
17/09/2003	0.15	Final Draft Issued for Approval	MGB
19/09/2003	1.0	Issued Definitive, Subject to REMCo Approval	MGB
02/10/2003	1.1	Issued definitive following incorporation of additional comments	MGB
02/10/2003	1.2	Fixed some minor typos in preparation for next issue. Re-formatting of transactions to be physical -> logical (as per participant request) Addition of review comments.	IPH MGB
12/11/2003	1.5	Final Draft Issued for Approval	MGB
21/11/2003	1.7	Issued Definitive, Subject to REMCo Approval	IPH
26/11/2003	2.0	Made Definitive.	MGB
16/12/2003	2.1	Changes Made under the following change request: CR: Logical12:	MGB

		Section 8.1.10.1: Deleted CancellationReasonCode and Description. Section 8.2.3.1 and 8.3.3.2; Removed effective from dates and made some corrections to schema elements used to carry BaseLoad and Heating Rate	
28/01/2004	2.1	<p>Changes Made under the following change request:</p> <p>CR: Logica08: Section 8.8.1 and Section 8.8.2; added two notices as per RMR Added Sections 8.8.26 and 8.8.27 for these notices.</p> <p>CR: Logica11: Section 8.1.3.2.3 and 8.1.3.3; added note regarding event codes. Section 8.8.12 and 8.8.17; added additional data items.</p> <p>CR: Logica13: Section 8.2.3.1 and Section 8.3.3.1; corrected field used to transport BaseLoad. Section A3: synchronised datatypes definitions of BASE_LOAD, HEATING_RATE and TEMP_SENSITIVE_HEATING_RATE with aseXML types. Section 8.4.4.1; Redefined the use of Last_Read_Date. Updated section that lists event codes to note the value of the Event "severity".</p> <p>CR: Logica15: Section 8.9.1; Correction to element path. Section 8.1.8.1; Redefined mandatory optionality of participant element. Section 8.1.7.1; Modified participant definition. Section 8.8.6; Added gas zone.</p> <p>CR: Logica18: Section 8.1.6.1 Fixed Typo Section 8.1.9.1, 8.1.8.1 moved ECNET-WOB-NOTF-OP and ECNET-WOB-NOTF-PU references. Section 8.1.10.1; participant definition made consistent for both ECNET and TFR.</p> <p>CR: Logica20: Section 8.7.4.3 Added DATA_GENERATION_DATE to PROV-HSD.</p> <p>CR: Logica17: Added Sections 3.2.5.3 and 3.4.2.6 for message level event codes and added details to Appendix B</p> <p>No CR:</p>	MGB

		Added example transactions to 8.2.3.2.1	
28/01/2004	2.1	<p>Changes Made under the following change request:</p> <p>CR: Logica14:</p> <p>i). Provide pipeline Id in the USS swing gas flow:</p> <p>ii). Change name of the CP-TANUSA flow to MCP-TANUSA for consistence:</p> <p>iii). Removed the SUBS-NOTF flow.</p> <p>iv). Pipeline identification added to UDW flow:</p> <p>v). User identification added to the OMP-USR:</p> <p>v). Swing Service provider identification added to the OMP-SSP flow:</p> <p>vi). Swing Service provider identification added to the BID-SSP flow:</p> <p>vii). The notification of invalid bid book flow removed:</p> <p>viii). The Response to the interval meter reading removed:</p> <p>CR: Logica19:</p> <p>(3) (1) Surplus Instruction Flow New Flow. Flow Name: SURPLUS Flow Attributes:</p> <ul style="list-style-type: none"> - PipelineId - SubnetworkId - GasDay - Swing Type (Loan or Park) - Allocation Percentage - Price (per GJ) <p>(2) User Profile Forecast Flow - PipelineID deleted from the flow definition.</p> <p>(3) Interval meter reading Flow - CheckSum field added to the flow definition.</p> <p>(4) HDD Flow HDD_ZONE deleted from the flow definition.</p> <p>(5) NORM-NSL Flow HISTORICAL_DAY field added to the flow.</p> <p>CR: Logica23:</p> <p>(1) Add TBWRA into the TRA flow (message).</p> <p>(2) Add ENERGY_INFLOW_01 ...24 into the CSV dictionary</p> <p>(3) Change the PARTICIPANT_ID to PARTICIPANT_GBO_ID in 10.9.4.2</p> <p>(4) Change the USER_ID to USER_GBO_ID in 10.2.2.2, 10.9.7.2, 10.9.8.2, 10.10.3.2, 10.10.4.2, 10.10.13.2</p> <p>(5) Add HISTORICAL_DAY to the CSV dictionary</p>	MV

		<p>(6) Rename CP-TANUSA to MCP-TANUSA</p> <p>(7) Change mask for effective date in the appendix one from yyyy-mmdd to yyyy-mm-dd.</p> <p>CR: Logica24: Added appendix A.5 and A.6 with coding of SUB_NETWORK_ID and PIPELINE_ID and appropriately fixed all affected examples for the section 9 and 10.</p>	
05/02/2004	2.1	<p>Updates for CR28.</p> <p>(1) Examples for the Interval Meter reading Flow</p> <p>The example for this flow currently shows the format being used after end of a gas day. An example for during gas day format could be added.</p> <p>(2) Move GPENG flow from 10.7.1 to the section 9 – meter reading</p> <p>Gate Point Energy inflow is not used only in WA but in both jurisdictions. It also represents gate point energy inflow and therefore should be a part of the meter reading section.</p> <p>(3) Users pipeline nomination UPNA – 10.5.1 should be on pipeline level rather than shipper</p> <p>The shipper GBO id should be removed and Pipeline_ID field should be in the flow instead.</p> <p>(4) Users allocation instruction – UAI - 10.3.1 example is incorrect</p> <p>The ALLOCATION_TYPE field has incorrect values in example (PERCENT,QUANTITY). This has to be corrected to use 'P,Q'.</p> <p>(5) Users allocation instruction – Used shipper register– NOT-UAI-USR - 10.3.3 add ALLOCATION_TYPE field</p>	MV
05/02/2004	2.1	<p>Updates made under direction of REMCo (awaiting CR)</p> <p>Updates to transaction mapping in section 10.1</p> <p>Update to HDD 10.6.8</p> <p>Update into MCP-TSS in section 10.10.8</p> <p>Update into MCP-TANUSA in section 10.10.9</p>	MV
19/02/2004	2.8	Change to the Gate Point Metering Data (MV)	MV
19/02/2004	2.8	Included ECNET-PEND-NOTF for CCN5 CR05 v part 1.	JB

2/3/2004	2.8	Changed sections 10.5 onwards. Primarily changing the structure of the CSV reports header and csv line.	
16/3/2004	2.8	Included CATSChangeAlert transactions – sections 8.1.1, 8.1.2 & 8.1.15, and Appendix B. [CCN11]	JB
16/3/2004	2.8	Included changes to CATSObjectionResponse and CATSChangeResponse for Logica CR37.	JB
16/3/04	2.8	Included changes to definition of ‘small use customer’ in section 8.2.3.1. [CCN11]	JB
16/3/04	2.8	Included new transaction WDR-HSD in section 8.8.1, 8.8.2 & 8.8.27. [CCN11].	JB
16/3/04	2.8	Changed transaction GBO-STATUS-INACTIVE to GBO-STATUS-CHNG in sections 8.8.1, 8.8.2 & 8.8.21. [CCN11]	JB
16/3/04	2.8	Modified BS references in section 8.8.2.	JB
16/3/04	2.8	Included new event codes in Appendix B and section 8.1.14 for changes to Objection Withdrawal validation. [CCN11]	JB
17/3/04	2.8	Included new (internal) cancellation reason code CRC000 for ROLR event in Appendix C.	JB
17/03/2004	2.8	Issue from V2.1 Add in the required aseXML examples. CR: Logica36 Removed sections entitled “AseXML Schema Compliance (R12)” REMC0 CR07: Added clarification to section 3.2.2 “All aseXML messages will comply with the R13 release of the aseXML schema”	MGB
22/03/2004	2.8	Included new event code 3022 for CATSChangeRequest – Logica CR27	JB
22/03/2004	2.8	Included new cancellation reason codes for concurrent reconnection/ disconnection – Logica CR30.	JB
22/03/2004	2.8	Moved BLHR transaction from BAR to DPR section of document [CCN11].	JB
25/03/2004	2.8	Added section 3.6 to describe the Low Volume Interface [CCN9]	IPH
30/03/2004	2.8	Modifications to CATSChangeAlert (may not be sent by network operator) – sections 8.1.1, 8.1.2 & 8.1.15.	JB
05/04/2004	2.8	Modifications to PROV-BSD for REMC0 CR05 (CU_EFFECTIVE DATE).	JB
05/04/2004	2.8	Modifications to TFR-MAR-NOTF for REMC0 CR02 (change to RMR rule 101).	JB
05/04/2004	2.8	Modifications to DSD transaction and examples for Logica CR25 version 2.	JB

05/04/2004	2.8	Modifications to the following sections to remove incorrect event codes 2127 and 2128: 8.1.3.2.2, 8.1.3.3.2, 8.1.5.2.2, 8.1.5.3.2, 8.1.12.2.2, 8.1.14.2.2, 8.1.14.3.2, 8.3.3.2.2, 8.4.3.2.2, 8.5.3.2.2, 8.6.3.2.2 As per REMCo issue R263 (REMCo CR08).	JB
06/04/2004	2.8	Modifications to sections 8.8.2 and 8.8.15 (REQ-HSD notice) for REMCO issue R272 (REMCo CR08).	JB
06/04/2004	2.8	Modification to section 8.3.3.1 to correct element path (DateServiceOrderCompleted) for GasMeterNotification/MeterFix transaction; REMCo issue R287 (REMCo CR08).	JB
06/04/2004	2.8	Removed unused field volumetric_inflow from Appendix A, as per REMCo issue R322 (REMCo CR08).	JB
14/04/2004	2.8	Modified ftp inbox text (section 3.4.1.1), as per Logica CR32	IH
14/04/2004	2.8	Modified time zone sections for ebXML/aseXML and csv, as per Logica CR31, Version 4 and REMCo CR08 R324	IH
15/04/2004	2.8	Fixed usage text for 'RequestId' in Section 8.1.7.1 as per Logica CR33	IH
15/04/2004	2.8	Added Transaction Groups for aseXML transactions as per REMCo CR03	IH
15/04/2004	2.8	Added Section 3.4.1.8 for upper case CSV filenames and extensions, as per REMCo CR06	IH
15/04/2004	2.8	Included in Section 3.4.1.8 and updated section 3.4.3.1 for date/time in csv filename as per REMCo CR13	IH
15/04/2004	2.8	Added clarification text around csv acknowledgements to sections 3.4.2.4 and 3.4.2.5.2 as per REMCo CR11	IH
15/04/2004	2.8	Updated aseXML Negative Acknowledgement and duplicate processing section in line with Paper released to Market, as per REMCo Issue R323 and R264 (REMCo CR08)	IH
15/04/2004	2.8	Added comment to section 3.2.7.2.1 stating that Duplicates are not forwarded to the RMA as per REMCo CR12	IH
15/04/2004	2.8	Updates as per REMCo CR008 • Update value of PUSA in examples as per R47 • Update definition of SWING_GAS_QUANTITY definition to NUM(10,0) as per 234	MV

		<ul style="list-style-type: none"> • Update definition of CONSUMPTION_HR01 - HR24 definition to NUM(11,0) as per 234 • Update definition of BID_PRIORITY to NUM(2,0) as per 234 • Update definition of NSL to NUM(11,2) as per 234 • Update definition of units NORMALISATION_FACTOR to NA • Update definition of MCP_ANUSA to MCP-TANUSA as per R239. Change units to Cents per MJ • Add definition of DELTA_SBRA and DELTA_BWRA to the csv appendix as per R285 • Change UUAFGRA to UDURA as per R286 • Delete VOLUMETRIC_INFLOW and FLOW_WEIGHTED_AVERAGE_HEATING_RATE from appcsv appendix as per R322 	
15/04/2004	2.8	Add GAA flow definition as per CCN11	MV
15/04/2004	2.8	Alter the GPMD flow definition as per CCN11 and R322 Update the BID-ALLOC as per CCN11.	MV
15/04/2004	2.8	<p>Changes to the csv data dictionary as per CR08 ref R50.</p> <p>Add the following definitions:</p> <ul style="list-style-type: none"> • USAGE_PRECEDENCE • PIPELINE_OPR_GBO_ID • REMOVAL_REASON • TBRA • ALLOCATION_PRECEDENCE • PRICE • BID_PRICE <p>Rename</p> <ul style="list-style-type: none"> • DEEMED_INJECTIONS to DEEMED_INJECTION <p>Delete the following items:</p> <ul style="list-style-type: none"> • ARF • BID_REJECTION_REASON • BWRA • DEEMED_WITHDRAWAL • EIW • ENERGY_INFLOW • GAS_ZONE • OMP_ID • RUUAFG • TOTAL_CHARGE <p>Update definition of PIPELINE_RATIO</p>	MV
15/04/2004	2.8	Update definition of PIPELINE_ID and SUB_NETWORK_ID and add their enumeration to the appendix as per LCMGCR 24.	MV

15/04/2004	2.8	Updates as per email from PP and DB: Change from NUM(11,2) to NUM(10,0) the following: <ul style="list-style-type: none"> • ANUSA • AUAFG • AUIW • AUSA • MRA Update MCP-TSS definition to NUM(11,3) in Cents/MJ	MV
15/04/2004	2.8	Update all BAR csv examples to UPPERcase header as per CR08 R283	MV
15/04/2004	2.8	Update for LCMG CR29 Change the USAGE_PRECEDENCE to ALLOCATION_PRECEDENCE for UAI flow Delete USAGE_PRECEDENCE as not used any more.	MV
15/04/2004	2.8	Update for CCN11 – new flow UAI-SUBS that is used to notify users about substituted user allocation instructions.	MV
16/04/200	2.8	Update for CCN11. Rename the shippers deemed injections to deemed injections as it is used for swing service providers as well	MV
16/04/2004	2.8	Updated all references to “Non-automated electronic file” to “Bulk electronic file”, as per REMCo CR08 R289	IH
19/04/2004	2.9	Correct order of columns in example for UPNA Correct the letters of columns names for FUAFG example to capital (USER_GBO_Id to USER_GBO_ID) Correct the letters of columns names for AUIW example to capital (USER_Gbo_ID to USER_GBO_ID) Correct column heading for user from USER_ID to USER_GBO_ID for OMP-SSP	MV
27/04/2004	2.9	Fixes as per Market review comments and Logica responses	IH
05/05/2004	3.0	Fixes as per final Market review comments and Logica responses	IH
05/05/2004	3.0	Included the following approved CRs: <ul style="list-style-type: none"> • Logica 46 – Update BAR Event codes • Logica 47 – Add MILP flow • Logica 48 – Add DGQ flow • Logica 49 – More details for UAI • Logica 51 – More Details for OMP-USR • Logica 52 – More Details for OMP-SURPLUS 	IH

		<ul style="list-style-type: none"> Logica 53 – Change UHGA to UHSA 	
05/05/2004	3.0	Added updates for REMCo CR 14 – <ul style="list-style-type: none"> Add clarification for OMP-APP to Section 10.10.5.1 	IH
05/05/2004	3.0	Added updates for REMCo CR 15 – <ul style="list-style-type: none"> Clarifications for Review Items 71, 72 and 79 	IH
06/07/2004	3.1	Added updates for REMCo CR 18 – Changes post Acceptance Testing. See CR for full list of changes.	IH
3/11/2004	3.2	<ul style="list-style-type: none"> OR744. Change to section 10.6.7.1 (HDD report to network operator). OR855. Addition of event code 3411 to Appendix B for CCN20. OR774. Addition of event code 5610 to Appendix B. OR775. Addition of multiple missing event codes to Appendix B (primarily for meter reading validation). OR829. Addition of event code to Appendix B for OR609 (earliest transfer date validation). OR828. Addition of Cancellation Reason Code to Appendix C for OR821 (permanent removal cancelled due to permanent removal). OR755. Update Appendix A2, number of HDD decimal places. OR853. Included missing event code 2039 for ECNND rejections. OR806/ CCN32. Change to section 10.9.11 (DI report broken down by User) 	JB
10/11/04	3.2	<ul style="list-style-type: none"> OR0868/ CCN38. Change to sections 10.9.7.1 and 10.1. (NORM-NSL to Network Operator). 	JB
22/11/04	3.2	<ul style="list-style-type: none"> OR0875. Addition to Appendix B for OR0475 (NACK for duplicate incoming CSV message id) 	JB
08/03/2005	3.2	<ul style="list-style-type: none"> CCN43. Updated issue date in alignment with BS v3.2. 	JB
16/05/2005	3.2	<ul style="list-style-type: none"> CCN42. Modified sections 10.1, 10.2, Error! Reference source not found., 10.10.11 and Appendix A2. New sections 10.9.16 & 10.9.17. 	JB
28/07/2005	3.3	CCN55-Permanent Removal Requests	MV

28/07/2005	3.3	CCN13a- Processing of duplicate transactions	MV
28/07/2005	3.3	CCN49-Recalculation of BAR Results	MV
11/10/2005	3.3	Correct example for GPENG flow. There was a space in front of numbers for 13 th hour.	MV
11/10/2005	3.3	Correct reference to the REMCo CSV Data format Specification in section 3.4.2.2	MV
11/04/2006	3.4	CCN19-VPN implementation – changes in the section 3.4 in regards to the FTP security.	MV
26/09/2006	3.5	CCN64 – Provision of AUAFG data - changes in section 10.9.3	DT
26/09/2006	3.5	CCN66 – Provision of historical UETW data - changes in section 10.9.15	DT
21/06/2007	3.6	BE28 – Added related notice for BE28 Gas Emergency Procedure to 10.13.4, 10.13.5 and 10.13.6 . Updated 10.1, 10.2 and Appendix A.2 to include new notices and new content types.	GH
21/06/2007	3.7	BE26 – Added Read type flag to the GPMD for SA – changes in section 9.3.5, 9.1 and Appendix A.2	AD
21/06/2007	3.7	BE29 – Added related noticed for BE26 to 10.12 and 10.13, 10.12 is a new section primarily for notices related to the recalculation of BAR, so 10.13 is now Miscellaneous.	AD
14/11/2007	3.7	CR75 –Added CALC-ESTGPMD notification to participants	GH
20/10/2008	3.8	CR81 – GRMS Refresh and Separation. Changes to Sections 3.4.2.1, 3.4.3.1 and 3.5.2.1 to reflect the separation of gateways and the introduction of 2 GBO-IDs REMCO for SA and WAGMO	RG
11/01/2010	4.0	Update for STTM changes affecting GRMS(SA)	RG
25/03/2010	4.1	Changes to text in DI and UDW reports. UDBW, UAUAFG Field name changes to UETW and UETW_HST reports. Market separation for UETW and UETW_HST reports. Added new elements to Section A.2 CSV datatypes.	RG
24/11/2010	4.2	New participant requested Meter registration and data reports Added new “Error Codes” in Appendix B “The Registry” for CR96 Transfer of MIRN on sub-network for which User does not have shipper.	RG
10/03/2011	4.2	Updated MIRN_STATUS field length to 16 chars	RG

23/03/2011	4.3	Updated MIRN-UPD-RPT to put Effective_From date of meter in Gas_Day field.	RG
14/04/2011	4.3	CR103 – Settlement_Run_Id field added to STTM-DSA report	RG
14/04/2011	4.3	CR104 – 2 new error codes added for Verification of shipper	RG
14/04/2011	4.3	CR105 – New DI_HST monthly report for SA Market only	RG
01/01/2014	4.4	Added Error Event code s applicable to SA Customer and Site Details (T900) Added Changed Status Codes for SA RoLR Event (RCA & RCO) Fixed names of PCI-HST and UETW-HST reports in ICD to match system generated filenames. Update MIRN-UPD-RPT sample data; Update contractor details Fix sub-sections in Section 10 Separate PROV-ROLR-TFR for SA & WA Marked PROV-ROLR-CANC-TX as WA ONLY	AR
14/09/2015	4.5	CR119 – IN012/11 Identify Previous FRO changes applicable to SA only	ND
TBA	4.6	<p>Update to include:</p> <p>WA</p> <ul style="list-style-type: none"> C02/16C – REMCo to AEMO transition changes. <p>SA</p> <ul style="list-style-type: none"> IN029/16 – REMCo to AEMO transition 	DM

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1.6 Change Forecast

Prior to the Business Rules workshops, a draft version was developed to support the clarification process. In tandem with the creation of the Business Specification [BS], upon completion of the workshops, a definitive ICD was created.

The document describes the formal mapping between the physical transactions, logical data flows and the latest aseXML standards compliant schemas.

Field Code Changed

1.7 References

Mnemonic	Document	Source	Issue	Date
[RMP]	Retail Market Procedures	AEMO	6.0	01/01/2014
[BS]	Business Specification	CGI	4.1	01/01/2014
[ICD]	This document	CGI	4.4	01/01/2014
[ASEXML]	Guidelines for Development of a Standard for Energy Transactions in XML	AEMO	4.1	-
[SP]	Specification Pack [SP]	Market Operator	5.6	01/01/2014
[MIBB]	User Guide to MIBB Reports	AEMO	6.0	1/1/2014

1.8 Abbreviations

AEMO	Australian Energy Market Operator
AseXML	Australian Standard for Energy Transactions in XML
DPR	Delivery Point Registry Entity
DEE	Data Estimation Entity
GRMS	Gas Retail Market Systems
REMC	Retail Energy Market Company Limited
ICD	Interface Control Document
XML	eXtensible Mark-up Language
GBO	Gas Business Operator
M2B	Market to Business
B2M	Business to Market
RMP	Retail Market Procedures (SA and WA only)
STTM	Short Term Trading Market (SA only)
RMR	Retail Market Rules (WA only)
BS	Business Specification
BAR	Balancing, Allocation and Reconciliation
EbXML	Electronic Business using eXtensible Markup Language
CSV	Comma Separated Values
SA	South Australia
WA	Western Australia
BL	Base Load
HR	Heating Rate

Additional abbreviations may be contained in the data dictionary at Appendix A.

2 MARKET CONTEXT

2.1 Participants, Business Roles and Market Roles

According to the Retail Market ~~Rule~~Procedures [RMP] each participant in both the SA and WA Gas Retail Markets will be assigned a unique GBO Identifier. This identifier will be unique within both markets and will identify each participant as well as their business role within the two markets. That is, a particular participant will have as many Gas Business Operator [GBO] identifiers as there are business roles associated with that participant.

The following are the valid business roles within the SA and WA markets;

Business Roles	Valid in Market
User	SA and WA
Retailer of Last Resort [ROLR]	SA and WA
Network Operator	SA and WA
Pipeline Operator	SA and WA
Shipper	SA and WA
GMA	SA and WA

Each business entity may operate with one or more Market Roles within both gas markets. For example a Participant with a Type of 'User' may be, depending on the context of the market transaction, a 'Current User' or an 'Incoming User'.

Market participants and their GBO Identifiers, the Business Roles assigned to a Participant and the Market Roles which a Participant is permitted to play in the market are to be communicated to the market prior to the commencement date of the market by the RMA as described in [RMP].

The following table outlines the valid combinations of Business Role and Market Role:

Business Roles	Market Role	Description
User	Current User	The current user for a delivery point, used when referenced in a delivery point transaction.
User	Incoming User	The incoming user in a change of user transaction.
User	Previous User	The user who was responsible for a MIRN prior to the completion of transfer, for the purposes of an transfer correction.

Network Operator	Relevant	The Network Operator to whom the transaction is relevant.
Network Operator	Provider of BL and HR	The source of the non-temperature-sensitive baseload and temperature sensitive heating rate.

The following table outlines internal elements of the GRMS that will receive specific notifications. These internal elements are defined in [BS].

Business Role	Internal Role	Description
GMA	Registry	The Delivery Point Registry of the GRMS
GMA	DEE	Data Estimation Entity of the Balancing, Allocation and Forecasting subsystem of the GRMS
GMA	Market Operations	The GRMS Market Operations Staff
GMA	RMA	The Retail Market Administrator

3 COMMUNICATION INTERFACES WITHIN THE MARKET

3.1 Overview

This section describes in detail the various categories of communication and their associated methods of transporting data to and from the GRMS central systems.

Five categories of communication have been identified and are described in the table below.

Type of Dataflow	Description
<i>AseXML</i>	An automated ebXML/aseXML transaction, routed via the Hub
<i>Bulk electronic file</i>	A csv file which has a defined structure, which can be automatically processed, but does not have aseXML wrapping. This file has a non-specific method of transport. It can be delivered by any means other than ebXML/aseXML or secure FTP.
<i>Automated electronic file</i>	A csv file which has a defined structure, which can be automatically processed, but does not have aseXML wrapping. This file type will be transferred using secure ftp, as defined in section 3.4.
<i>Notice</i>	An unstructured instruction <i>in writing</i> , such as fax, physical letter, email etc. Minimum requirements for this type of communication are detailed in section 3.5
<i>Acknowledgement</i>	Dependent upon the method of transport for the initiating transaction, the acknowledgement of that transaction will be one of the following: <ul style="list-style-type: none">An aseXML transaction acknowledgement, as defined in the aseXML guidelines document and outlined in section 3.2.7An ftp csv acknowledgement, as defined in section 3.4.2.5.

3.2 ebXML / aseXML Interface

3.2.1 Background

‘A Standard for Energy Transactions in XML’ [ASEXML] provides the basis for the development of the data flows in the Gas Retail Market. AseXML was developed by the Combined Gas and Electricity IT Architecture Working Group of Australia and provides a de-centralised approach to the development of energy transactions. The standard [ASEXML] describes the use of XML in developing electronic data flows and provides for addressing,

acknowledging, referencing and grouping of data flows. Guidelines are provided to implement a change management process on the schemas which define the data flows.

This section outlines the concepts in aseXML which support the data flows for the Gas Retail Market. Though the standard [ASEXML] describes the physical format of messages in aseXML, some of the constructs described in it perform business level functionality and are therefore also described at a logical level.

All of the descriptions provided below are for the purposes of illustrating concepts relevant to the logical description of GRMS data flows. The aseXML standard [ASEXML] and schemas [SCHEMA] are the definitive source of these specifications.

3.2.2 AseXML Messages

An aseXML message is defined as the 'entire XML tree starting with the <aseXML> element'.

All aseXML messages will comply with the R13 release of the aseXML schema

3.2.3 Envelope

The envelope within an aseXML message provides :

- encapsulation of all possible transactions
- routing functionality i.e. information relating to the sender, receiver and information to determine the appropriate transaction handler. This is referred to as the *header*.
- consistent error reporting

The *header* envelope of an aseXML message can be described as a logical data group :

Group Ref.	MHD	Level	1	Name	Message Header	
Group Optionality		M	Condition (if O)		Range	1
Item Ref.	Name				Optionality	
	From				1	
	To				1	
	Message ID				1	
	Message Timestamp				1	
	Transaction Group				1	
	Priority				O	
	Market				1	

The From and To items apply to every transaction within the envelope. Where a transaction is to be sent to more than one recipient, the transaction information is required to be sent in separate messages, one to each recipient.

Transaction Group is specified in the message header to identify the set of related transactions which this message contains. Transaction Groups map onto an “application” or sub-system. Within a message, transactions must belong to the same transaction group. The transaction group in the message header allows the routing function to send the message to the appropriate sub-system without having to interrogate the individual transactions.

3.2.4 Transactions

A *transaction* is defined in the aseXML guidelines [ASEXML] as ‘a one-way exchange of information between business process level entities’. Each Level 1 *group* of a logical data flow described in this document represents a single *transaction*. Each *transaction* is assigned a unique transaction identifier by the sender. The transaction identifier allows the recipient to provide a link between the transaction acknowledgement and the original transaction.

The transaction is wrapped in a transaction container which holds information to identify and timestamp the transaction. This is described logically as follows :

Group Ref.	TCN	Level	1	Name	Transaction Container	
Group Optionality		M	Condition (if O)		Range	1
Item Ref.	Name				Optionality	
	Transaction ID				1	
	Transaction Timestamp				1	
	Initiating Transaction ID				O	

Multiple transactions can be included within a single message, as long as they are all from the same transaction group. Note that there are performance implications of including many transactions within a single message.

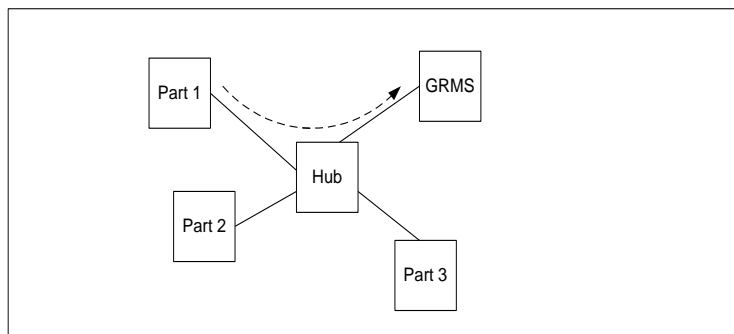
3.2.5 Acknowledgements

Acknowledgements are provided at two levels. An ebXML message acknowledgement is sent to confirm receipt of an ebXML message and to report on the success or failure of validation against the aseXML schema

definition. A transaction acknowledgement is provided when a transaction is processed by a business process level entity. The receipt of a transaction acknowledgement communicates the acceptance (or otherwise) of the responsibility to process a transaction by the sender. There shall be no aseXML message acknowledgements sent in the SA/ WA market. Each market participant and ~~the Market Operator~~ [AEMO](#) will acknowledge each ebXML message (with an ebXML message acknowledgement) and each aseXML transaction (with an aseXML transaction acknowledgement) that they receive.

3.2.6 Message Acknowledgements

The market will use the 'hub and spoke' architecture. A central hub that will be responsible for logging and routing market transactions. This hub will be linked to each market participant (Part 1 etc) in the market and will simplify the business-to-business and business-to-market interface, since each participant need only send messages to the hub.



All messages transferred via the hub will use the ebXML messaging standard. This will provide the additional features of guaranteed delivery, security and trusted message exchange.

All Market transactions defined using the aseXML standard will be contained within an ebXML wrapper for the purposes of security and routing by the hub. Each market participant that receives an ebXML message must respond with a message acknowledgement as defined in the Specification Pack – “FRC B2M-B2B Hub System Architecture, Version 2.01, dated 28th November 2003”. There will be no aseXML message acknowledgement distributed in the market.

See section 2.3.1.1 of the Specification Pack – “FRC B2M-B2B Hub System Architecture, Version 2.01, dated 28th November 2003” that describes the message acknowledgement model.

3.2.7 Transaction Acknowledgements

The transaction acknowledgement is described logically as follows :

Flow Ref.	TACK		Flow Name		Transaction Acknowledgement				
From Role	ANY		From Type		ANY				
To Role	ANY		To Type		ANY				
Transaction Group		See Notes*							
Group Ref.	TAC	Level	1	Name		Transaction Acknowledgement			
Group Optionality		M	Condition (if O)					Range	1
	Item Ref.	Name						Optionality	
		Initiating Transaction ID						1	
		Receipt Date/Timestamp						1	
		Receipt ID						O	
		Status						1	
		Duplicate						O	
		Accepted Count						O	

Group Ref.	EVT	Level	2	Name		Event			
Group Optionality		O	Condition (if O)		If Status = REJECT		Range	0-*	
	Item Ref.	Name						Optionality	
		Event Code						1	
		Event Description						1	
		Supported Version						O	

Notes:
Initiating Transaction ID corresponds to the Transaction to which this is an Acknowledgement.
Receipt ID will be populated, but it will not be possible to use the information provided in the receipt id for any purposes outside the sender system.
* The transaction group must be populated in the aseXML header of transaction acknowledgements and all the individual transaction acknowledgements must be of the same transaction group.

Each aseXML *transaction* carries a data attribute called a *transactionID*. This *transactionID* is a unique value generated by the sender of the transaction and is unique to the sender.. Each aseXML *acknowledgement* also carries a data attribute, the *initiatingTransactionID*.

Every aseXML transaction that is generated within the market, either by a participant or by ~~the Market Operator~~ [AEMO](#), will initiate an acknowledgement in the receivers system. When a transaction is received by a system, it will be verified as being compliant with an aseXML schema before undergoing business validation. If business validation is successful then an *acknowledgement* will be generated to signify that the received transaction has been successfully validated and processed. If business validation fails, then a *negative acknowledgement* will be generated. A *negative acknowledgement* provides the information required for the sender to identify the problem with the initiating transaction. In both the cases of an *acknowledgement* and a *negative acknowledgement* the sender is able to pair the *transaction* with it's *acknowledgement* by matching up the *transactionID* and the *initiatingTransactionID*. The sender can then retrieve the information

from a *negative acknowledgement* to identify and fix the problem that caused the original transaction to fail validation.

Status provides a summary of the success or otherwise of the processing of the transaction. A status of 'Accept' denotes that the transaction was processed successfully and can be considered to have been acted on. A Status of 'Reject' denotes that the transaction was not processed successfully and the transaction should be considered not processed. Multiple event codes may be sent in an acknowledgement where an incoming transaction is rejected by GRMS following failure of more than one validation step.

The receipt of transaction acknowledgements by the GRMS will not invoke any special system behaviour. However, upon receipt of a negative acknowledgement an email will be sent to the RMA. The RMA will take any additional action required. See Section 3.2.7.2.1 for further details).

See section 2.3.1.2 of the Specification Pack – “FRC B2M-B2B Hub System Architecture, Version 2.01, dated 28th November 2003” that describes the transaction acknowledgement model.

3.2.7.1 *Generating Acknowledgements to Incoming Transactions*

The GRMS provides a transaction acknowledgment for every incoming aseXML transaction that it receives (this includes duplicates – see Section 3.2.7.1.3).

3.2.7.1.1 Data elements in a Transaction Acknowledgement

The GRMS populates the following data elements in a transaction acknowledgement:

- InitiatingTransactionID – using the transaction ID in the header of the transaction received from the Sender
- ReceiptID – system generated unique number. Must be stored with the associated transaction for audit and traceability.
- ReceiptDate - system date/time (in GMT + 10:00 time)
- Status – as required (see Section 3.2.7.1.2)
- Duplicate – as required (see Section 3.2.7.1.3)
- Event(s) – as required (see Section 3.2.7.1.4)
- AcceptedCount – this is **not** populated (see Section 3.2.7.1.6)

3.2.7.1.2 Transaction Acknowledgement Status Field

The GRMS populates the status field of the transaction acknowledgement in accordance with the following:

- “Accept” is used if the transaction is accepted with no errors detected. Because of the automated nature of the system, “Warning” and “informational” events are never generated.
- “Partial” – a status of ‘Partial’ would only ever occur when processing CSV data within an aseXML transaction. The only transaction of this type that the GRMS processes is the MeterDataNotification transaction. Since this has its own MeterDataResponse transaction which contains any events, it is assumed that the transaction acknowledgement sent will always be “Accept” if the CSV data is readable and “Reject” if the CSV data is not able to be processed (see Section 3.2.7.1.4). Hence the GRMS never populates the status of an acknowledgement with “Partial”.
- “Reject” indicates the transaction was rejected and the GRMS will perform no further processing of the transaction. In the case of a request transaction, no response transactions, where normally expected, are generated. The acknowledgement carries at least one event with a severity of “Error”.
- GRMS current functionality ensures that the status is not set to “Accept” if any events are generated. The status is set based on the severity of the Events associated with the transaction. This can be summed up in the table below:

Acknowledgement contains:	Transaction Ack Status
No Events	Accept
All Events have Severity = Information	Reject/Partial *
All Events have Severity = Warning	Reject/Partial *
All Events have Severity = Error	Reject
A number of Events with a combination of Information and Warning severities	Reject/Partial*
A number of Events with a combination of Information and Error severities	Reject/Partial *
A number of Events with a combination of Information, Warning and Error severities	Reject/Partial *
A number of Events with a combination of Warning and Error severities	Reject/Partial *

* = Since the GRMS only uses the severity of “Error”, the rows marked will not be generated by the GRMS

3.2.7.1.3 Handling of Duplicate Transactions

On receipt of a transaction, the GRMS will check to see if a transaction with the same transactionID has previously been received. If it has, it will check to see if a

receiptID has been assigned to the original transaction, which would indicate that the transaction had been processed and an acknowledgement already dispatched to the sender. If there is a receiptID for the original transaction, the original acknowledgement will be found (based on its receiptID) and resent with the duplicate element set to 'Yes' and the date/time updated to the current time.

If no receiptID is logged for the original transaction, this indicates that it is still being internally processed and hence the duplicate will be discarded, as the original transaction processing will complete and send an acknowledgement in due course.

3.2.7.1.4 Transaction Acknowledgement Events

Events are populated with the following elements:

- The Code
 - The GRMS uses Event Codes as specified in the ICD and B2B specification packs.
 - Description attribute of the Code element contains the text description for the Event Code (as defined in the ICD Appendix B).
- Class - "Application".
- Severity – the GRMS uses "Error", if the entry can not be processed. A severity or "Warning" can be used if an entry could be processed, but there are no occurrences of this in the GRMS.
- Context – this element contains the portion of the input to which the event applies.
- Explanation – this element provides further explanation where a code used is of a generic nature. Usually this text is the same as the 'Description' text.
- SupportedVersions – This attribute is **not** populated.

3.2.7.1.5 AseXML Example

Positive Acknowledgement:

```
<TransactionAcknowledgement initiatingTransactionID="STUB-TX-150000012" receiptID="150000012" receiptDate="2004-06-01T09:08:00.000+10:00" status="Accept" duplicate="No" />
```

Negative Acknowledgement:

```
<TransactionAcknowledgement initiatingTransactionID="STUB-TX-150000011" receiptID="150000011" receiptDate="2004-06-01T09:00:00.000+10:00" status="Reject" duplicate="No">  
  <Event class="Application" severity="Error">  
    <Code description="MIRN already exists">3413</Code>
```

```
<Context>Delivery Point Id = 5000000099</Context>
<Explanation>MIRN should not exist in New
Connection Business Process</Explanation>
</Event>
<Event class="Application" severity="Error">
  <Code description="Participant GBO Id is not
active">3018</Code>
  <Context>Initiating Participant Id = ZINO</Context>
  <Explanation>The Participant is not active in the
market at the current time</Explanation>
</Event>
<Event class="Application" severity="Error">
  <Code description="New Connection Effective Date
supplied is too late">3411</Code>
  <Context>NDP effective from date = 2006-12-
26</Context>
  <Explanation>New Connection Effective Date supplied
is too late</Explanation>
</Event>
</TransactionAcknowledgement>
```

3.2.7.1.6 Request Transactions with a Response (CATS transactions)

There are a number of transactions in the SA/WA markets which have a transaction response defined, in addition to sending a transaction acknowledgement. For these transactions, the following occurs:

- If the business validation fails, a negative acknowledgement is sent, in line with the details given above. No response transaction is sent in this case.
- If the business validation is successful, a positive acknowledgement is sent. Additionally, the response transaction is sent. This response transaction has a single event in it, with the following attributes:
 - Severity "Information"
 - Class "Message"
 - Code 0

3.2.7.1.7 Basic Meter Reads and Response

The functionality for the MeterDataNotification transaction is slightly different than the other aseXML transactions processed by the GRMS. This transaction has a CSV field containing meter readings. A transaction response, MeterDataResponse is also defined. This flow holds events for any readings which failed validation.

- If the MeterDataNotification does not have the required fields (as defined in the ICD, these are the record count and the CSV reading data), then a negative transaction acknowledgement is sent. No MeterDataResponse is sent in this case.
- If the MeterDataNotification does have the required fields then a positive transaction acknowledgement is sent and a

MeterDataResponse containing the number of accepted meter readings and zero or more events is sent. There will be one event for each failed meter reading. These events have a severity of "Error".

3.2.7.2 *Processing of Incoming Transaction Acknowledgements*

3.2.7.2.1 Handling Negative Transaction Acknowledgements

Negative transaction acknowledgements received by the GRMS are forwarded to the RMA via email (on an hourly basis). The email will contain the TransactionAcknowledgement snippet, as well as the 'From' participantID, the MessageID, MessageDate, TransactionGroup and Market.

In order to reduce the load on the RMA, negative acknowledgements with the Duplicate element set to 'Yes' will be filtered out and not forwarded to the RMA.

3.2.7.2.2 Non-receipt of a Transaction Acknowledgement

At the transaction level, the GRMS does not perform any checks to ensure that transaction acknowledgements are received within any particular timeframe. This is in line with the AEMO view that it is a decision of the individual business how it wishes to handle transaction acknowledgements.

At the message level, acknowledgements are monitored and retries occur as defined by the FRC Hub Specification.

3.2.7.3 *Processing of CATSChangeAlerts*

The system will receive CATSChangeAlerts and forward them onto the Incoming User. See Section 8.1.15 for details of the physical transaction and the Business Specification for details of the use of the flow. Current functionality includes

- Accept CATSChangeAlert from the Current User
- The Identification of who is the 'sender' in the CATSChangeAlert to the Incoming User is supplied in the Alert notification to the Incoming user
- The system only accepts CATSChangeAlerts for transfers but not for error correction transactions.

3.2.7.4 *AseXML Message Level Event Codes*

It is possible that a message may fail message validation. Should this occur the following event codes may be returned. See Appendix B for a full list and a description of these codes.

Event Code Number

5,6,5805

3.2.8 Transaction Response Model

For some transaction sets within the aseXML schema a data exchange may continue over more than two transactions. A good example of this is the *CATSCheckRequest* and *CATSCheckResponse* pair. With this transaction set the 'Request' carries data required to successfully initiate a business process in the recipients system as well as the usual *transactionID* element used to uniquely identify the transaction. Upon receipt of the 'Request', and after successful completion of business validation a transaction acknowledgement is generated and returned to the sender. This transaction acknowledgement carries the usual *initiatingTransactionID* that is used by the sender to identify the acknowledgement for the original transmission (by pairing together the values of the original *transactionID* and the *initiatingTransactionID* in the acknowledgement).

Additionally, the receiver may send a 'Response' this also carries an element called *initiatingTransactionID*. So, by setting this to the value of the original *transactionID* it is possible for this 'Response' to be tied back to the initiating transaction. The purpose of this is to enable the communication of additional information that is not supported within the standard transaction/ acknowledgement exchange. Specifically, in the case of a *CATSCheckResponse*, it allows the communication of a 'Request ID' this Request ID is automatically generated by the receivers system and represents a unique reference to the business process that is initiated by the receiver after data validation checks have been successfully carried out. By communicating this *RequestID* to all the interested parties it is possible to efficiently identify a particular Recipients business process without re-sending all the relevant data elements.

3.2.9 Timestamps

All datetime type information in messages, transactions and acknowledgements will be sent from the GRMS in Market Standard Time. That is to say, all time information will be sent from the GRMS as in the GMT+10 time zone.

The time zone selected for date/time stamps in the body of aseXML transactions sent to the GRMS will be at the discretion of the sending party. The sending party must therefore ensure that the combination of the time and time zone accurately communicates the point in time being defined.

As defined in the B2B-B2M Hub Specifications and Architecture documents all date/time stamps in the messaging (ebXML) and in the headers of aseXML messages and transactions will be expressed in GMT+10 (market time).

The format used for all datetime type information will be in line with ISO 8601 Date and Time Format (see <http://www.w3.org/TR/xmlschema-2/#isoformats>). i.e.

Complete date plus hours, minutes, seconds and (an optional) decimal fraction of a second:

YYYY-MM-DDThh:mm:ssTZD (eg 2004-06-23T21:36:57.000+10:00)

where:

YYYY = four-digit year

MM = two-digit month (01=January, etc.)

DD = two-digit day of month (01 through 31)

hh = two digits of hour (00 through 23) (am/pm NOT allowed)

mm = two digits of minute (00 through 59)

ss = two digits of second (00 through 59), optionally in ss.s where

s = one or more digits representing a decimal fraction of a second

TZD = time zone designator (“+10:00” in this case)

3.3 Bulk Electronic File Interface

3.3.1 Transport Layer

In the case of the bulk electronic file category, the transport is non-specific. Possible transport options include email, ftp or a physically delivered CD-ROM or floppy disk.

3.3.2 Transport Model – Messages Sent to GRMS

The filename of the csv file sent to the GRMS should conform to the format described in section 3.4.2.1.

No formal acknowledgement is required for a Bulk Electronic file, but should such a response be required, it will be via a *notice*, unless explicitly defined otherwise.

3.3.3 Transport Model – Messages Sent by the GRMS

The filename of the csv file sent to participants should conform to the format described in section 3.4.3.1.

No formal acknowledgement is required for a Bulk Electronic file, but should such a response be required, it will be via a *notice*, unless explicitly defined otherwise.

3.4 Automated Electronic File Interface

3.4.1 Transport Layer

The transport method for files in this category will be FTP across a Virtual Private Network (VPN), specific to each market participant. Specific directories will exist for each participant on the FTP server; these will be notified to market participants prior to Communications Infrastructure Testing.

3.4.1.1 Directories

Each organisation will have a directory specific to them for each jurisdiction in which they are active from which they may send or receive files to/from GRMS. This directory will have sub-directories for each GBO ID which that organisation uses. Under each of the directories will be the *in* and *out* directories.

i.e:

/organisation identifier/[SA | WA]/GBO_ID/in

/organisation identifier/[SA | WA]/GBO_ID/out

For example, Acme Retail participates in the SA market as a retailer. the same organisation acts as a shipper and swing service provider. It has the following GBO IDs (note that these do not follow a specific format; the specific format, if any, has yet to be defined by ~~the Market Operator~~ [AEMO](#)):

ACMERRET	For the retailer (user) entity
ACMERSHPR	For the shipper entity
ACMERSSP	For the swing service provider entity

Acme Retail would have the following directories on the FTP server:

<i>/ACMER/SA/ACMERRET/in</i>	(for messages from the participant to GRMS)
<i>/ACMER/SA/ACMERRET/out</i>	(for messages from GRMS to the participant)
<i>/ACMER/SA/ACMERSHPR/in</i>	(for messages from the participant to GRMS)
<i>/ACMER/SA/ACMERSHPR/out</i>	(for messages from GRMS to the participant)
<i>/ACMER/SA/ACMERSSP/in</i>	(for messages from the participant to GRMS)
<i>/ACMER/SA/ACMERSSP/out</i>	(for messages from GRMS to the participant)

When organisation logs onto the server, their 'home' directory will be
/ACMER

From here, they can change directory to the appropriate GBO ID directory.
This allows a representative from the organisation to submit files in multiple
roles (and hence GBO IDs) in the same log on session.

3.4.1.2 **Security**

The security of data transactions which are passed between market
participants and the GRMS over the internet will be established using the
Virtual Private Network (VPN). A VPN is essentially an encryption tunnel;
it uses encrypted IPSEC connections at known end-points to implement
transaction security.

A VPN will be established between each individual market participant and
the GRMS. This will allow for encryption across either (i) the entire
communications channel between the market participant's firewall appliance
and the GRMS firewall appliance, or (ii) the connection between a client
machine and GRMS firewall appliance.

Participants will be provided with a username and password to allow access
to the FTP server and upon logon shall only be able to access those directories
required to submit and receive *automatic electronic files*.

Each file in the participant *in* directory will be further authenticated by
checking that the sender in the envelope header (or file name) matches the
directory the file is found in.

3.4.1.3 **Polling Frequency**

The maximum permitted frequency of participants polling their *out* directory
is to be 30 seconds, if polled by an automatic process, or an average of 30
seconds, if polled manually. Participants are free to poll the *out* directory less
frequently than this if desired.

This interface is not designed with the same scalability, and performance in
mind as the ebXML interface, and as such, high frequency continuous polling
or very high volumes of transactions are not anticipated.

The GRMS will endeavour to poll participants' inboxes every 10 seconds.
This may vary depending on system loads, the number of files in the inboxes
etc. The Market expectation is that this polling should happen at least once a
minute as a worst case.

3.4.1.4 **Compression**

Files containing transactions must be compressed to allow efficient use of
bandwidth. Files containing transactions sent to and from GRMS are to be
compressed by the sender prior to sending. Compression is to be carried out

using the Zlib standard (RFC 1950), which is supported by winzip, pkzip etc. All Acknowledgement files are not to be compressed.

CSV files sent to and from the GRMS are limited to a 2MB size limit when **unzipped**.

3.4.1.5 *File Receipt*

A file sent to the GRMS by a participant should be considered received by the GRMS if the FTP transfer completed successfully and the file has been renamed by the sender from a .tmp to .zip file extension. If the FTP transfer did not complete successfully then the participant should re-try until the file transfer completes successfully.

GRMS will initiate processing of received files in order of receipt. All of the data within the CSV file will be treated as a single transaction to be processed.

3.4.1.6 *Timestamps*

A file is deemed to have been received by the GRMS at the moment when it has been renamed from .tmp to .zip in the market participant's *in* directory, as described in 3.4.2.1 and 3.4.3.1.

A file is deemed to have been sent by the GRMS at the moment it has been named either .zip or .ack or .dup in the participant's *out* directory.

All datetime type information including the datetime implied in the outgoing csv filename (see section 3.4.3.1), any datetimes used in the transactions within a csv file and the timestamps within csv acknowledgements will be sent from the GRMS in Market Standard Time. That is to say, all time information will be sent from the GRMS as in the GMT+10 time zone.

The timestamp implied in the outgoing csv filename is the message creation time, rather than the business process transaction time, although these should be very close under normal circumstances.

The time zone selected for date/time stamps in the body of csv transactions sent to the GRMS will be at the discretion of the sending party. The sending party must therefore ensure that the combination of the time and time zone accurately communicates the point in time being defined. There are no such time/date fields identified at present.

The format used for all datetime type information (apart from the date/time stamp implied in the outgoing csv filename – see section 3.4.3.1 for further details of this) will be in line with ISO 8601 Date and Time Format (see <http://www.w3.org/TR/xmlschema-2/#isoformats>). i.e.

Complete date plus hours, minutes, seconds and (an optional) decimal fraction of a second:

YYYY-MM-DDThh:mm:ssTZD (eg 2004-06-23T21:36:57.000+10:00)

where:

YYYY = four-digit year

MM = two-digit month (01=January, etc.)
DD = two-digit day of month (01 through 31)
hh = two digits of hour (00 through 23) (am/pm NOT allowed)
mm = two digits of minute (00 through 59)
ss = two digits of second (00 through 59), optionally in ss.s where
 s = one or more digits representing a decimal fraction of a second
TZD = time zone designator (“+10:00” in this case)

3.4.1.7 ***Re-sending Messages***

In the event of transactions being lost due to a system failure or data transfer failure it may be necessary to re-send files to or from the GRMS. The criteria for selection of these files is to be all files sent between two times. When re-sending, the file to be re-sent is to be re-transmitted as originally sent i.e. with the same filename and message/transaction identifiers. Validation of message id uniqueness will ensure that the same transaction will not be processed by the recipient more than once if the recipient has already received the file.

3.4.1.8 ***Filename Structures for csv Files***

The filename structure is case sensitive. It must be upper case for all parts of the filename.

eg

WAGAS_UAI_ALINTARWA_WAGMO_20040501143526.ZIP

Or

SAGAS_UAI_AGL_REMCO_20040501143526.ZIP

Note that the 14 character alphanumeric unique identifier will have the following structure for csv files sent *from* the GRMS:

<datetime><sequence>

where

<datetime> is YYYYMMDDhhmm

<sequence> is a 2 digit value ranging from ‘00’ (zeroes) to ‘ZZ’

The filenaming formats are described separately in sections 3.4.2.1, 3.4.3.1, 3.6.2.1 and 3.6.3.1.

3.4.2 Transport Model – Messages Sent to GRMS (B2M)

3.4.2.1 Participants Push Message to GRMS

Market Participants will create a csv message file (with a .CSV extension – note the case), compress it using zip, change the file extension to .TMP and push it to their Inbox. Whilst the file is being created it has the file name suffix .TMP. Once the file transfer is complete the file will be renamed in one atomic (uninterruptible) operation (rather than a copy and a rename). The file will be renamed to change the file name suffix from .TMP to .ZIP.

Filename format for file is :

The FRC Market	Either “WAGAS” or “SAGAS”
Fixed Character	[_]
The Flow Reference	[0-9A-Z]
Fixed Character	[_]
GBO ID Initiator	[0-9A-Z]{1,10}
Fixed Character	[_]
GBO ID Recipient	[0-9A-Z]{1,10} (“REMCO” for all SA B2M) (“WAGMO” for all WA B2M)
Fixed Character	[_]
Unique ID	[0-9A-Z]{1,14} (This could be date time, in YYYYMMDDhhmmss format)
File name suffix	(TMP ZIP)

e.g. WAGAS_UAI_ALINTARWA_WAGMO_20040501143526.ZIP

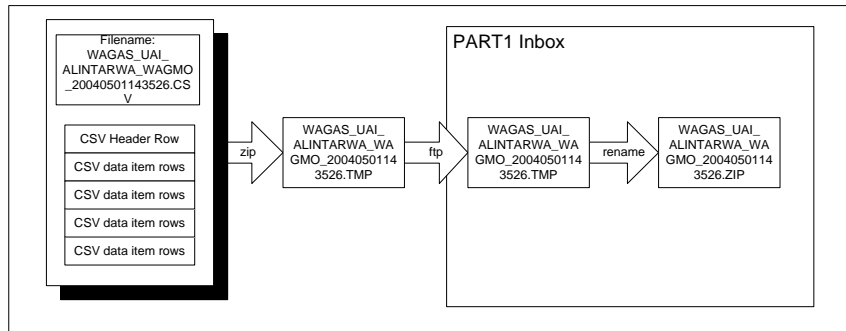
or

SAGAS_UAI_AGL_REMCO_20040501143526.ZIP

The filename prior to zipping will be the same as the zipped filename, but with a .CSV extension.

Only files that start with “WAGAS_” or “SAGAS” with a file extension of “ZIP” shall be considered for processing.

Only data for a single transaction should be in any particular .CSV file. That is, only a single csv component (which consists of a single header row and many csv data rows) is allowed in any particular .CSV file.



3.4.2.2 CSV Format

The formatting conventions for the contents of csv files are defined in the CSV Data Format Specification which forms a component of the Specification Pack [SP].

3.4.2.3 GRMS Removes the .ZIP file

Once the file has been atomically renamed to a .ZIP file, the GRMS will poll the directory and remove the file. The removal of the file indicates that the GRMS is processing the file.

3.4.2.4 GRMS Performs Business Level Validation

The GRMS will perform business level validation as described in the Business Specification on the transaction contained within the csv file. This will include validating the filename (since it contains business information). Once the csv transaction has been validated the GRMS will place a 'csv acknowledgement' in the participant's Outbox. The csv acknowledgement will have the same file name as the message filename but with a filename suffix of .ACK. Acknowledgement files will not be zipped.

e.g. Original csv Message :

WAGAS_UAI_ALINTARWA_WAGMO_20040501143526.ZIP

Or

SAGAS_UAI_AGL_REMCO_20040501143526.ZIP

csv Ack :

WAGAS_UAI_ALINTARWA_WAGMO_20040501143526.ACK

Or

SAGAS_UAI_AGL_REMCO_20040501143526.ACK

The csv acknowledgement could arrive some time after the original message was placed into the Inbox. Each message will have one and only one corresponding transaction acknowledgement message that will contain one and only one csv acknowledgement.

Should a file with the same filename be submitted more than once, a file with the same name but a .DUP (for duplicate) will be placed in the participant's Outbox. The content of the .DUP file will take the form of an acknowledgement with a header row and a single data row with event code 5800 (duplicate zip filename). This will prevent the original copies of the .ACK file from being overwritten.

3.4.2.5 *Format of a csv Acknowledgement*

The format of a csv acknowledgement is defined below.

3.4.2.5.1 Logical Flow

Flow Ref.		CSVACK		Flow Name		CSV Acknowledgement	
From Role		GMA		From Type		GRMS	
To Role		ANY		To Type		ANY	
Transaction Group		n/a					
Group Ref.		CAC	Level	1	Name	CSV Acknowledgement	
Group Optionality		M		Condition (if O)		Range	1
	Item Ref.	Name					Optionality
	51	Receipt Timestamp					1
	15	Status					1
Group Ref.		EVT	Level	2	Name	Event	
Group Optionality		O		Condition (if O)		If Status = R	Range
	Item Ref.	Name					Optionality
	16	Event Code					1
	17	Event Description					1
	152	Context					1
Notes:							

3.4.2.5.2 Physical Mapping

The csv columns for this flow are:.

Logical Name	Physical Name
Receipt Timestamp	RECEIPT_DATETIME
Status	STATUS
Reason Code	EVENT_CODE
Reason Description	EVENT_DESCRIPTION
Context	CONTEXT

The Receipt timestamp will provide the date and time at which the corresponding CSV file was received by the GRMS.

The status will provide a coded to indicate the result of processing the corresponding CSV file. The allowable values for this status field will be "PARTIALFAIL","FAIL"

The reason code will provide an event code to identify a particular error.

The reason description will include a textual description of the reason code.

The context will provide sufficient data items from the corresponding CSV file to uniquely identify the row or rows that failed validation for the specific event code. This field shall be surrounded by double quotes ("").

Upon successful processing of a CSV file the acknowledgement will include the CSV file header only.

Example:

```
RECEIPT_DATETIME,STATUS,EVENT_CODE,EVENT_DESCRIPTION,CONTEXT
```

In the event of a partial failure, a header line and data rows will be included in the acknowledgement. These data rows will provide the information needed to identify the row or rows that failed validation and the reason for the validation failure.

Example:

```
RECEIPT_DATETIME,STATUS,EVENT_CODE,EVENT_DESCRIPTION,CONTEXT  
2003-10-01T08:37:20+10:00,PARTIALFAIL,EC0001,MIRN Does not exist,"5421234587,01-09-2003"
```

In the event that no rows were successfully processed, that is all CSV data fails validation, a header and data rows will be included in the acknowledgement for all CSV data submitted for processing. These data rows will provide the information needed to identify the reason for each validation failure.

Example:

```
RECEIPT_DATETIME,STATUS,EVENT_CODE,EVENT_DESCRIPTION,CONTEXT  
2003-10-01T08:37:20+10:00,FAIL,EC0001,MIRN Does not exist,"5421234587,01-09-2003"  
2003-10-01T08:37:20+10:00,FAIL,EC0002,MIRN not associated with user on date,"5421234587,01-08-2003"  
2003-10-01T08:37:20+10:00,FAIL,EC0003,Invalid Date,"5421234587,01-99-2003"  
2003-10-01T08:37:20+10:00,FAIL,EC0001,MIRN Does not exist,"xxxxxxxxxx,01-09-2003"
```

To summarise:

- A positive acknowledgement will only contain 1 row; that is the header row.
- A negative acknowledgement will contain at least 2 rows; one for the header and one for each event code.
- The format of the .dup is the same as the acknowledgement (.ACK), however it will only have the event code 5800 (duplicate zip filename)
- The .DUP does not contain the data of the original acknowledgement.

- The .DUP will be overwritten if the participant sends in a third file with a name that already has a corresponding .ACK and .DUP

3.4.2.6 *CSV 'Message' Level Event Codes*

It is possible that a message may fail message validation. Should this occur the following event codes may be returned. See Appendix B for a full list and a description of these codes.

Event Code Number
5,6,5800-5806

3.4.2.7 *Participant Pulls csv Acknowledgement*

The participant will pull the csv acknowledgement. The csv acknowledgement will indicate whether each transaction passed business validation or not.

3.4.2.8 *Participant Deletes Acknowledgements*

Once the participant has examined the .ack file, he should delete it from his out box. Acknowledgments that are not deleted will be removed by the GRMS after 14 days.

3.4.3 **Transport Model – Messages Sent by the GRMS (M2B)**

3.4.3.1 *GRMS Puts Message in Participant Outbox*

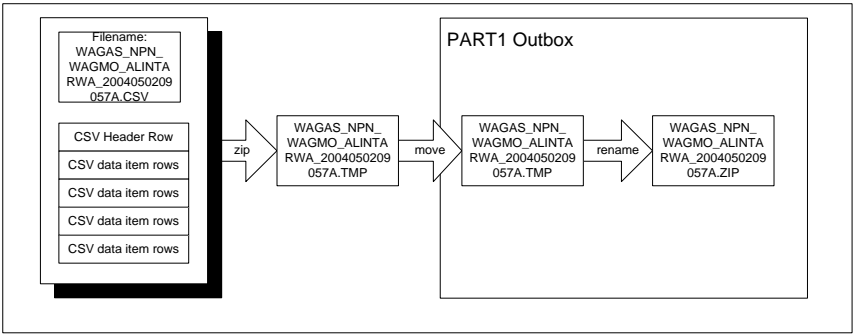
GRMS will create a message (with .CSV extension – note the case), compress it using zip and place it in a participant's Outbox.

Filename format for file is:

The FRC Market	Either "WAGAS" or "SAGAS"
Fixed Character	[_]
The Flow Reference	[0-9A-Z]
Fixed Character	[_]
GBO ID Initiator	[0-9A-Z]{1,10} ("REMCO" for all SA M2B) ("WAGMO" for all WA M2B)
Fixed Character	[_]
GBO ID Recipient	[0-9A-Z]{1,10}
Fixed Character	[_]

Unique ID	[0-9A-Z]{1,14} (This will be datetime to the minute, in YYYYMMDDhhmmnn format, where nn is a two digit sequence id which can range from '00' to 'ZZ')
File name suffix	(TMP ZIP)

e.g. WAGAS_NPN_WAGMO_ALINTARWA_2004050209057A.ZIP
or
SAGAS_NPN_REMCO_AGL_2004050209057A.ZIP



3.4.3.2 *Participant Pulls the Message*

The participant will pull the message. Once the participant has examined the message file, he should delete it from his out box. Messages that are not deleted will be removed by the GRMS after 14 of days.

3.4.3.3 *Participants do not Generate csv Acknowledgements*

No csv acknowledgement is to be provided by the participant.

3.5 **Notice Interface**

3.5.1 **Transport Layer**

Notices are defined as any written communication and as such the transport is non-specific. Possible transport options include email, fax or a physically delivered letter.

3.5.2 **Required information**

Whilst notices are by nature not automated, they should conform at least to the following proforma information, in order to enable notices to be tracked and referenced in follow-up responses. Notices which do not meet this minimum requirement will not be able to be actioned and may not be

acknowledged at all if, for example, the senders' GBO identifier is not included.

- The FRC Market
- The Flow Reference
- GBO ID of the Initiator
- GBO ID of the intended Recipient
- Date and time the notice was sent
- A Notice Reference ID generated by the sender which is unique across their organisation
- Any Unique Notice Reference Id to which this notice relates

3.5.2.1 GRMS Email Notices to Participants

The GRMS intends to send email notices with the following format for the subject:

The FRC Market	Either "WAGAS" or "SAGAS"
The Flow Reference	[0-9A-Z]
GBO ID Initiator	[0-9A-Z]{1,10}
GBO ID Recipient	[0-9A-Z]{1,10} ("REMCO" for all SA B2M) ("WAGMO" for all WA B2M)
Unique Notice ID	[0-9]{1,14}

The fields in the table above go to form the subject field when separated by '_' characters. For example a notice could be identified as:

WAGAS_ECNND-CONF-NOTF_WAGMO_ALINTANWO_7035

Or

SAGAS_ECNND-CONF-NOTF_REMCO_ENVSA_7035

This allows participants to use mail routing ~~rule~~ Procedures to manage email notices based on market, type of flow, sender etc.

If a Participant replies to this notice, he should refer to the unique notice ID.

3.5.3 Transport Model – Messages Sent to GRMS

Notices intended for actioning by the GRMS will be monitored by GRMS operational staff who will report these to the RMA. The RMA will monitor notice volumes and forward valid requests to the GRMS operations staff.

The *RMA* should forward notices to the GRMS operations staff using the agreed email address, fax number or mailing address.

3.5.4 Transport Model – Messages Sent by the GRMS

The GRMS may automate some outgoing notices to participants, in the form of emails. The GRMS will hold a single email address for each participant GBO identifier in the system and use this address in all *notice* category communications.

3.6 Low Volume Participant Interface

3.6.1 Transport Layer

The Low volume interface allows certain market participants to submit aseXML payload ‘snippets’ via the ftp interface. These snippets are then wrapped in ebXML and submitted to the FRC Hub via the GRMS ebXML gateway, on behalf of the relevant participant.

Transactions and transaction acknowledgements bound for the low volume participants are forwarded by the FRC hub to the GRMS ebXML gateway. The GRMS then strips the aseXML payload out of the ebXML message and forwards the resultant ‘snippet’ to the low volume participant’s XML outbox.

Participants wishing to send ebXML transactions to a low volume participant address their messages to the end participant as normal.

3.6.1.1 Directories

Each low volume participant will have a directory specific to them for each jurisdiction in which they are active from which they may send and receive aseXML messages to/from the GRMS. This directory will have sub-directories for each GBO ID which that organisation uses. Under each of the directories will be the aseXML *in* and *out* directories.

i.e:

/organisation identifier/[SA | WA]/GBO_ID/xmlin

/organisation identifier/[SA | WA]/GBO_ID/xmlout

For example, Acme Retail is a low volume participant in the SA market. It has the following GBO ID:

ACMERRET For the retailer (user) entity

Acme Retail would have the following directories on the FTP server for aseXML sending and receiving:

/ACMER/SA/ACMERRET/xmlin	(for snippets from the participant to the market)
/ACMER/SA/ACMERRET/xmlout	(for messages from the market to the participant)

When organisation logs onto the server, their ‘home’ directory will be

/ACMER

From here, they can change directory to the appropriate GBO ID directory.

3.6.1.2 **Security**

See section 3.4.1.2 for information on the FTP interface security.

3.6.1.3 **Polling Frequency**

See section 3.4.1.3 for information on the FTP interface polling frequency.

3.6.1.4 **Compression**

Files into and out of the low volume interface should not be zipped. Xml files sent to and from the GRMS are limited to 2MB in size.

3.6.1.5 **File Receipt**

A file sent to the GRMS by a participant should be considered received by the GRMS if the FTP transfer completed successfully and the file has been renamed by the sender from a .TMP to .XML file extension. If the FTP transfer did not complete successfully then the participant should re-try until the file transfer completes successfully.

GRMS will initiate processing of received files in order of receipt.

3.6.1.6 **Timestamps**

A file is deemed to have been received by the GRMS at the moment when it has been renamed from .TMP to .XML in the market participant’s *xmlin* directory, as described in 3.6.2.1 and 3.6.3.1.

A file is deemed to have been sent by the GRMS at the moment it has been named .xml in the participant’s *xmlout* directory.

3.6.1.7 **File Format**

The aseXML payload file should be composed of a full aseXML message, complete with header and one or more transactions or transaction acknowledgements, in line with the “Guidelines for Development of A

Standard for Energy Transactions in XML (aseXML)”. The file should use the ASCII 7-bit character set (unicode).

3.6.1.8 *Schema Validation*

Message handshaking only takes place on the ebXML side (i.e. between the GRMS ebXML gateway, the hub and other gateway enabled participants.)

The GRMS does not do any aseXML validation against the relevant schema, beyond that required to forward the transaction (such as reading the ‘TO’ participant GBO ID). Since the FRC Hub implementation of ebXML validates the payload in the message layer, any aseXML validation failure at the remote end will result in a negative message acknowledgement, which will not be forwarded to the low volume participant. It is therefore crucial that the low volume participant validates his transactions against the correct version of the schema (using XMLSpy, for example) prior to sending to the GRMS FTP server.

3.6.2 **Transport Model – Messages Sent to GRMS from Low Volume Participants for Forwarding to the Hub**

3.6.2.1 *Participants Push Message to GRMS*

Low volume participants will create an aseXML message file, with a file extension of .tmp and push it to their aseXML inbox on the FTP server. Whilst the file is being created it has the file name suffix .tmp. Once the file transfer is complete the file will be renamed in one atomic (uninterruptible) operation (rather than a copy and a rename). The file will be renamed to change the file name suffix from .tmp to .xml.

Filename format for file is :

Unique ID	This should be the aseXML message ID, as defined in the “Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)”.
File name suffix	(TMP XML)

e.g. ACMERRET_2938475839.XML

3.6.2.2 *GRMS Removes the .XML file*

Once the file has been atomically renamed to a .xml file, the GRMS will poll the directory and remove the file. The removal of the file indicates that the GRMS is processing the file and forwarding to the FRC Hub.

The low volume participant will not get any form of acknowledgement (other than the file being removed from the directory) until the final end recipient responds with a transaction acknowledgement.

3.6.2.3 *GRMS Forwards to the FRC Hub*

The GRMS then wraps the aseXML message with the appropriate ebXML information and forwards the message to the FRC Hub. Note that the final end recipient of the message could be a participant with an ebXML gateway, the GRMS or another low volume participant.

3.6.3 **Transport Model - Messages Sent to GRMS from the Hub for Forwarding to Low Volume Participants**

3.6.3.1 *GRMS Puts Message in Participant Outbox*

On receiving an ebXML message which is intended for a low volume participant, the GRMS extracts the aseXML message payload and places it in the low volume participant's aseXML Outbox.

Filename format for this file is:

Unique ID	This will be the aseXML message ID, as extracted from the aseXML message payload header.
File name suffix	(TMP XML)

e.g. ACMERRET_2938475839.XML

3.6.3.2 *Participant Pulls the Message*

The low volume participant will pull the message. Once the participant has examined the message file, he should delete it from his out box. Messages that are not deleted will be removed by the GRMS after 14 of days.

3.6.3.3 *Low Volume Participants Send and Receive aseXML Transaction Acknowledgements*

Although there is no ebXML message layer handshaking between the low volume participant and the GRMS, it should be noted that the low volume participant is still bound by the aseXML guidelines and should send aseXML transaction acknowledgements for every transaction they receive. Similarly, they will receive a transaction acknowledgement from the end recipient for every transaction they send.

4 DATA TYPES

4.1 CSV Datatypes

The data items that are required to be passed in B2M and M2B communication are listed and defined in appendix A. The format of these descriptions is described below.

4.1.1 Format

Each of the properties of a data item as included in Appendix A are described below :

Element Name	The short name of the <i>element</i>
Description	A detailed description of the <i>element</i>
Logical Type	The logical type of the <i>element</i> . Allowed logical types are CHAR, NUM, DATE, DTIME (date time)
Logical Length	The logical length of the <i>element</i> . This applies to CHAR and NUM logical types. No length is required for DATE or DTIME.
Decimal Length	The length of the decimal portion of a NUM. Where specified, this is inclusive of the logical length. E.g. a NUM with a logical length of 10 and a decimal length of 2 has 8 digits to the left of the decimal place and 2 to the right.
Signed?	The sign of NUM type <i>elements</i> . Valid values are Y or N.
Units	The units of measurement which the <i>element</i> represents.
Enumeration	A list of valid values of the <i>element</i> .
Description	The textual description of the enumeration value.
Mask	The formatting mask of the <i>element</i> . An – n * alphanumeric characters 9 – numeric digit DD – Day (e.g. 05) MON – Month (e.g. JUL) MM – Month (e.g. 07) YYYY – 4 digit year HH – 24 Hour MI – Minutes SS – Seconds

4.2 AseXML Datatypes

aseXML datatypes are defined in the 'Physical Transaction' tables which are supplied for each physical transaction type.

The physical elements of aseXML transactions, as listed in these tables, conform with the aseXML schema and the formatting within the schema.

5 DATA FLOW ANALYSIS

5.1 Process

The process undertaken to identify candidate aseXML transactions to implement the required external system interfaces is:

- Analyse the [RMR] to identify the various logical data flows
- Analyse the [RMR] to identify the various logical data items required by each flow
- Generate table to display the description of each logical flow and data item.
- Using analysis carried out by Envestra identify any candidate transactions from the Victorian Gas Market.
- Identify whether the logical description identified from the [RMR] is supported by the candidate transaction as used in the Victorian Gas Market.
- If the logical description is supported – accept it.
- If it is not, suggest one of the following:
 - altering the optionality of data elements in the latest aseXML schema to support the required transaction.
 - adding an additional optional data element to support the required transaction.
 - create a new transaction to support the required flow.

5.2 Validation

The ICD will be cross referenced and validated against the requirements as described in the business specification [BS].

6 DATA FLOW STRUCTURE

The set of data flows described in this document support all the business processes described in [RMR] between the GRMS and all external parties.

The logical definition of a data flow has been removed to aid readability, following the mapping of Logical Flows to Physical ones.

7 MAPPING OF LOGICAL FLOWS TO PHYSICAL FLOWS

The following codes have been used throughout this document to identify the various flows by their process type.

7.1 Short Code Mapping Summary

This table defines the initial code used to classify each flow by it's associated process.

Short Code	Process
TFR	Transfer
COM	New Connection
DIS	Disconnection
REC	Reconnection
DEC	Decommission
DCN	Data Change Notice
ECNET	Error Correction Erroneous Transfer
ECNND	Error Correction Notice for New Connection and Permanent Removal
DSD	Deliver Standing Data

8 THE REGISTRY

For this section 8, references to the term Registry means:

- For South Australia, the AEMO Registry; and
- For Western Australia, the ~~REMC~~~~Co~~AEMO Registry.

In the interests of keeping new terms and acronyms to a minimum, the original word “Registry” has been *italicised* **where possible** to indicate that its definition again depends on its location

8.1 Transfer and Change of Standing Data (Erroneous Transfer Correction)

The Transfer section of the [RMR] deals with the transfer of customers from one user (current user) to another user (incoming user). Since the customer is assigned a delivery point this is equivalent to transferring gas deliveries at a delivery point from the current user to the incoming user.

When looking for a candidate aseXML transaction to support a required Transfer logical flow the approach will be to try and re-use a suitable transaction from the CATS (CustomerTransfer) application. Where technically feasible this will be the CATS transaction as used in the Victorian gas market for a similar data exchange.

An ‘erroneous transfer correction’ is a request initiated by the user that was previously associated with a delivery point. This is a request to correct a transfer that may have occurred in error. The process that follows this request is precisely the same as that for a transfer.

Throughout this section reference is made to the ‘previous’ user. Such a user is conceptually the same as the incoming user, as referred to in the transfer process.

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8.1.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
CATSChangeRequest		TFR-REQ	Incoming User	The Registry	aseXML	CATS	80	3.3.4
		ECNET	Previous User	The Registry	AseXML	CATS	32	2.2.9
CATSChangeResponse		TFR-NOTF-IU	The Registry	Incoming User	aseXML	CATS	85	3.3.9
		ECNET-NOTF-PU	The Registry	Previous User	AseXML	CATS	35	2.2.12
CATSChangeWithdrawal		TFR-WREQ	Incoming User	The Registry	aseXML	CATS	95	3.3.19
		ECNET-WDR	Previous user	The Registry	aseXML	CATS	43	2.2.20
CATSDataRequest		TFR-MAR-NOTF	The Registry	Incoming User/ Current User	aseXML	CATS	101	3.3.25
CATSNotification	REQUESTED	TFR-NOTF-CU	The Registry	Current User	aseXML	CATS	85	3.3.9
		TFR-NOTF-NO	The Registry	Network Operator	aseXML	CATS	85	3.3.9
		TFR-WOB-NOTF-IU*	The Registry	Incoming User	aseXML	CATS	93	3.3.17
		TFR-WOB-NOTF-OP*	The Registry	Objecting Participant	aseXML	CATS	93	3.3.17
		ECNET-NOTF-NO	The Registry	Network Operator	AseXML	CATS	35	2.2.12
		ECNET-NOTF-CU	The Registry	Current User	AseXML	CATS	35	2.2.12

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
		ECNET-WOB-NOTF-OP*	The Registry	Objecting Participant	AseXML	CATS	41	2.2.18
		ECNET-WOB-NOTF-PU*	The Registry	Previous User	AseXML	CATS	41	2.2.18
	PENDING	TFR-PEND-MI-NOTF	The Registry	Incoming User/ Current User/ Network Operator	aseXML	CATS	98	3.3.22
		TFR-PEND-NOTF	The Registry	Incoming User/ Current User/ Network Operator	aseXML	CATS	100	3.3.24
		ECNET-PEND-NOTF	The Registry	Incoming User/ Current User/ Network Operator	aseXML	CATS	46	2.2.23
	OBJECTION*	TFR-OBJ-NOTF-IU	The Registry	Incoming User	aseXML	CATS	90	3.3.14
		ECNET-OBJ-NOTF-PU	The Registry	Previous User	AseXML	CATS	38	2.2.15



Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
	CANCELLED	TFR-CAN-NOTF	The Registry	Incoming User/ Current User/ Network Operator	aseXML	CATS	94 99 133 97 101	3.3.18 3.3.23 3.6.9 3.3.21 3.3.25
		ECNET-CAN-NOTF	The Registry	Previous User/ Network Operator/ Current User	aseXML	CATS	42 45 31 134	2.2.19 2.2.22 2.2.8 3.6.9
	COMPLETED	TFR-CONF-NOTF	The Registry	Incoming User/ Current User/ Network Operator	aseXML	CATS	103	3.3.27
		ECNET-CONF-NOTF	The Registry	Previous User/ Network Operator/ Current User	aseXML	CATS	46	2.2.23
	CATSObjectionRequest	TFR-OBJ-NO	Network Operator	The Registry	aseXML	CATS	86	3.3.10
		TFR-OBJ-ROLR	ROLR	The Registry	aseXML	CATS	87	3.3.11
		ECNET-OBJ-NO	Network Operator	The Registry	AseXML	CATS	36	2.2.13
		ECNET-OBJ-CU	Current User	The Registry	AseXML	CATS	36 logica	2.2.13

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
CATSObjectionResponse		TFR-OBJ-NOTF-OP	The Registry	Objecting Participant	aseXML	CATS	90	3.3.14
		ECNET-OBJ-NOTF-OP	The Registry	Objecting Participant	AseXML	CATS	38	2.2.15
CATSObjectionWithdrawal		ECNET-WOB	Current User/ Network Operator	The Registry	AseXML	CATS	39	2.2.16
		TFR-WOBJ	Objecting Participant	The Registry	aseXML	CATS	91	3.3.15
CATSChangeAlert		TFR-ALERT-CU	Current User	The Registry	AseXML	CATS	85	3.3.9
		TFR-ALERT-IU	The Registry	Incoming User	aseXML	CATS	85	3.3.9

* = TFR-WOB-NOTF-IU ,TFR-WOB-NOTF-OP,ECNET-WOB-NOTF-PU and ECNET-WOB-NOTF-IU can be either “REQUESTED” or “OBJECTED” status, depending if there are any objections left outstanding after the withdrawal. These transactions are listed in the “REQUESTED” variation table.

8.1.2 Code Summary

This table is a complete list of those codes used within the *Transfer* process to uniquely identify each particular flow.

Identifier	Data Flow Name
TFR-CAN-NOTF	Transfer Cancellation Notification
TFR-CONF-NOTF	Transfer Confirmation Notification
TFR-MAR-NOTF	Transfer Request Missing Actual Read Notification
TFR-NOTF-CU	Transfer Request Notification Current User
TFR-NOTF-IU	Transfer Request Notification to Incoming User
TFR-NOTF-NO	Transfer Request Notification to Network Operator

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TFR-OBJ-NO	Transfer Objection by Network Operator
TFR-OBJ-NOTF-IU	Transfer Objection Notification to Incoming User
TFR-OBJ-NOTF-OP	Transfer Objection Notification to Objecting Participant
TFR-OBJ-ROLR	Transfer Objection by ROLR
TFR-PEND-MI-NOTF	Transfer Pending Notification for move-in
TFR-PEND-NOTF	Transfer Request Pending Notification
TFR-REQ	Transfer Request
TFR-WOBJ	Transfer Objection Withdrawal
TFR-WOB-NOTF-IU	Transfer Objection Withdrawal Notification to Incoming User
TFR-WOB-NOTF-OP	Transfer Objection Withdrawal Notification to Objecting Participant
TFR-WREQ	Transfer Withdrawal Notice
ECNET	Error Correction Notice For Erroneous Transfer
ECNET-CAN-NOTF	Error Correction Cancellation Notification
ECNET-CONF-NOTF	Error Correction Notice Confirmation Notification
ECNET-NOTF-CU	Error Correction Notification of Erroneous Transfer to Current User
ECNET-NOTF-NO	Error Correction Notification of Erroneous Transfer to Network Operator
ECNET-NOTF-PU	Error Correction Notification of Erroneous Transfer to Previous User
ECNET-OBJ-CU	Error Correction Objection by Current User
ECNET-OBJ-NO	Error Correction Objection by Network Operator
ECNET-OBJ-NOTF-OP	Error Correction Objection Notification to objecting participant
ECNET-OBJ-NOTF-PU	Error Correction Objection Notification to previous user
ECNET-PEND-NOTF	Error Correction Pending Notification
ECNET-WDR	Error Correction Withdrawal Notice
ECNET-WOB	Error Correction Objection Withdrawal Notice
ECNET-WOB-NOTF-OP	Error Correction Objection Withdrawal Notification to Objecting Participant
ECNET-WOB-NOTF-PU	Error Correction Objection Withdrawal Notification to Previous User

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CGI

Field Code Changed

TFR-ALERT-CU	Transfer Change Alert from Current User
TFR-ALERT-IU	Transfer Change Alert to Incoming User



8.1.3 CATSChangeRequest Transaction

8.1.3.1 Physical Transaction

NOTE: The Incoming user GBO ID will be identified in the message header.

CATSChangeRequest

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ChangeReasonCode	String (4) 0001 = Prospective transfer, in-situ 0002 = Prospective transfer, move in 0003 = Correction of Transfer	Mandatory	Either: <ul style="list-style-type: none"> “0001” or “0002” to support TFR-REQ ”0003” to support ECNET 	1..1	ChangeReasonCode	xsd:string xsd:maxLength =”4”
ProposedDate	Date (10) Cyy-mm-dd	Mandatory	Represents: <ul style="list-style-type: none"> The earliest transfer Date for TFR-REQ the day the transfer took place for ECNET 	1..1	ProposedDate	xsd:date
NMI	String(10)	Mandatory	The MIRN	0..1	NMIStandingData/NMI	xsd:string length=”10”
Checksum	Integer(1)	Mandatory	The MIRN Checksum	Use=”optional”	@checksum	xs:integer” minInclusive=”0”maxInclusive=”9”

8.1.3.2 Data flow Definition: Transfer Request (TFR-REQ)

A transfer request is a notice from an incoming user to the AEMO Registry to transfer gas deliveries at a delivery point specified in the request to the incoming user.

8.1.3.2.1 AseXML Example

Transfer (Move-in):

```
<CATSChangeRequest version="r4">
  <ChangeReasonCode>0002</ChangeReasonCode>
  <ProposedDate>2004-06-07</ProposedDate>
  <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
    <NMI checksum="7">5000000001</NMI>
  </NMISTandingData>
</CATSChangeRequest>
```

Transfer (In-Situ):

```
<CATSChangeRequest version="r4">
  <ChangeReasonCode>0001</ChangeReasonCode>
  <ProposedDate>2004-06-10</ProposedDate>
  <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
    <NMI checksum="7">5000000005</NMI>
  </NMISTandingData>
</CATSChangeRequest>
```

8.1.3.2.2 Event Codes

Event Code Number
202,3001,3002,3011,3018,3022,3022,3029,3035,3038,3407,3662

Note: In all cases the severity of each event will be “Error”.

Note: Multiple event codes may be sent where the transaction is rejected by GRMS following failure of more than one validation step.

8.1.3.3 *Data Flow Definition:Error Correction Notice For Erroneous Transfer (ECNET)*

This identifies a request by a user to correct a transfer that was made in error.

8.1.3.3.1 AseXML Example

```
<CATSChangeRequest version="r4">  
  <ChangeReasonCode>0003</ChangeReasonCode>  
  <ProposedDate>2004-06-10</ProposedDate>  
  <NMISTandingData xsi:type="ase:GasStandingData" version="r13">  
    <NMI checksum="5">5000000006</NMI>  
  </NMISTandingData>  
</CATSChangeRequest>
```

8.1.3.3.2 Event Codes

Event Code Number
201,202,3000,3007,3016,3022,3035,3038,3662

Note: In all cases the severity of each event will be “Error”.

Note: Multiple event codes may be sent where the transaction is rejected by GRMS following failure of more than one validation step.

8.1.4 CATSChangeResponse Transaction

8.1.4.1 Physical Transaction

NOTE: All items in the logical flow may be communicated by referring to ~~the Market Operator~~ [AEMO](#) generated RequestID. That is, since the incoming user already notified ~~the Market Operator~~ [AEMO](#) of all the data in the original request, we do not need to explicitly include it in this notification and only need the RequestID. Also, the initiatingTransactionID for the *CATSChangeResponse* will tie back to the received *CATSChangeRequest* allow the incoming user to identify all the required logical data items.

NOTE: The *Date and Time of Processing in the AEMO Registry* shall be stored in the transactionDate attribute of the transaction.

CATSChangeResponse

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
RequestID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Transfer or Error Correction.	1..1	RequestID	xsd:positiveInteger maxInclusive ="9999999999"
Event	Contains sub-elements. Code is defined as Numeric (10)	Mandatory	An event code of zero will be provided for all Change Responses.	1..1	Event/Code	xsd:nonNegativeInteger
Class	Enumerated String	Mandatory	Set to "Message" for all Change Responses Note: Although optional in the schema, must be set to avoid default value being used	use="optional"	@class	xsd:string
Severity	Enumerated String	Mandatory	Set to "Information" for all Change Responses Note: Although optional in the schema, must be set to avoid default value being used	use="optional"	@severity	xsd:string

8.1.4.2 **Data flow Definition: Transfer Request Notification to Incoming User (TFR-NOTF-IU)**

This is the notification to the incoming user to indicate that the transfer request initiated by the incoming user passed business validation and has been accepted.

8.1.4.2.1 AseXML Example Transaction

```
<CATSChangeResponse version="r4">  
  <RequestID>11034</RequestID>  
  <Event severity="Information" class="Message">  
    <Code>0</Code>  
  </Event>  
</CATSChangeResponse>
```

8.1.4.3 **Data Flow Definition: Error Correction Notification For Erroneous Transfer to Previous User (ECNET-NOTF-PU)**

This is notification to the previous user to identify that the particular error correction has been requested.

8.1.4.3.1 AseXML Example Transaction

```
<CATSChangeResponse version="r4">  
  <RequestID>11036</RequestID>  
  <Event severity="Information" class="Message">  
    <Code>0</Code>  
  </Event>  
</CATSChangeResponse>
```

8.1.5 CATSChangeWithdrawal Transaction

8.1.5.1 Physical Transaction

NOTE: The Incoming User GBO Identifier will be stored in the message header.

CATSChangeWithdrawal

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
RequestID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Transfer Request or Error correction	1..1	RequestID	xsd:positiveIntegermaxInclusive="9999999999"

8.1.5.2 Data flow Definition: Transfer Withdrawal Notice (TFR-WREQ)

This flow is a request by the incoming user to withdraw their transfer request.

8.1.5.2.1 AseXML Example Transaction

```
<CATSChangeWithdrawal version="r4">
  <RequestID>55123010</RequestID>
</CATSChangeWithdrawal>
```

8.1.5.2.2 Event Codes

Event Code Number
202,3007,3018,3025,3026,3400

Note: In all cases the severity of each event will be “Error”.

8.1.5.3 *Data Flow Definition: Error Correction Withdrawal Notice (ECNET-WDR)*

This flow is a request by the previous user to withdraw their error correction request

8.1.5.3.1 AseXML Example Transaction

```
<CATSChangeWithdrawal version="r4">  
  <RequestID>175000006</RequestID>  
</CATSChangeWithdrawal>
```

8.1.5.3.2 Event Codes

Event Code Number
202,3007,3018,3025,3026,3025,3400

Note: In all cases the severity of each event will be “Error”.

8.1.6 CATSDataRequest Transaction

8.1.6.1 Physical Transaction

CATSDataRequest

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Role	String(4) "USER" – User "NO" – Network operator "GRMS" – The Gas Retail Market System.	Mandatory	The role assigned to the Sender. In this case "GRMS"	1..1	Role	xsd:string xsd:maxLength="4"
RoleStatus	String(Enum) "N" = New (incoming) "C" = Current	Mandatory	In this case "N".	1..1	RoleStatus	Enumerated list of xsd:string "N", "C".
InitiatingRequestID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Transfer Request (move in or non-move in) that is missing an actual value.	1..1	InitiatingRequestID	xsd:positiveIntegermaxInclusive="999999999"
NMI	String(10)	Mandatory	The MIRM in the original Change Request	0..1	NMIStandingData/NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	An attribute of NMI	use="optional"	@checksum	xsd:integer"minInclusive="0"maxInclusive="9"

8.1.6.2 Data flow Definition: TFR-MAR-NOTF : Transfer Request Missing Actual Read Notification

This is a notification from the Market Operator AEMO to indicate that a pending transfer (move in or non-move in) received an estimated value when an actual value was required.

Whilst the CATSDataRequest does not specifically describe what data is required (through some form of an 'event code', for example), the InitiatingRequestID is used to identify the transfer process that initiated this response.

8.1.6.2.1 AseXML Example Transaction

```
<CATSDataRequest version="r7">  
  <Role>GRMS</Role>  
  <RoleStatus>N</RoleStatus>  
  <InitiatingRequestID>55000009</InitiatingRequestID>  
  <NMISTandingData xsi:type="ase:GasStandingData" version="r13">  
    <NMI checksum="8">5000000009</NMI>  
  </NMISTandingData>  
</CATSDataRequest>
```

8.1.7 CATSNotification Transaction – “REQUESTED” Variant

8.1.7.1 Physical Transaction

NOTE: The Date and Time of Processing in the *Registry* shall be stored in the transactionDate attribute of the transaction.

CATSNotification

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Role	String(4) “USER” – User “NO” - Network operator “ROLR” – Retailer of Last Resort	Mandatory	The role assigned to the recipient. Either: <ul style="list-style-type: none"> • “USER” to support TFR-NOTF-CU • “NO” to support TFR-NOTF-NO • “USER” to support TFR-WOB-NOTF-IU • “NO” or “ROLR” to support TFR-WOB-NOTF-OP • “NO” to support ECNET-NOTF-NO • “USER” to support ECNET-NOTF-CU • “USER” or “NO” to support ECNET-WOB-NOTF-OP • “USER” to support ECNET-WOB-NOTF-PU 	1..1	Role	xsd:string xsd:maxLength="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
RoleStatus	String(Enum) "N" = New (incoming) "C" = Current	Mandatory	The role status assigned to the recipient. Either: <ul style="list-style-type: none"> • "C" to support TFR-NOTF-CU • "C" to support TFR-NOTF-NO • "N" to support TFR-WOB-NOTF-IU • "C" to support TFR-WOB-NOTF-OP • "C" to support ECNET-NOTF-NO • "C" to support ECNET-NOTF-CU • "C" to support ECNET-WOB-NOTF-OP • "N" to support ECNET-WOB-NOTF-PU, (since previous user can be considered the new or incoming user in the process) 	1..1	RoleStatus	Enumerated list of xsd:string "N", "C".

Participant	String (10)	Mandatory	<p>If 'Role' = "NO" then:</p> <ul style="list-style-type: none"> For Transfers (TFR-), contains the GBO Id of the incoming user that initiated the transfer when sent to the Network Operator. For Error Corrections (ECNET-), contains the GBO Id of the previous user who initiated the error correction when sent to the Network Operator. <p>If 'Role' = "USER" or "ROLR" then:</p> <ul style="list-style-type: none"> For transfers (TFR-), (1) contains the GBO Id of the incoming user that initiated the transfer when sent to the incoming user (2) contains xsi:nil = "true" when sent to the current user (We do not communicate the incoming users identity to the current user.) For error correction, (ECNET-) (1) contains the GBO Id of the incoming user that initiated the transfer when sent to the previous user (2) contains xsi:nil = "true" when sent to the current user (We do not communicate the previous users identity to the current user.) 	1..1	ChangeRequest/Participant	xsd:string
-------------	-------------	-----------	---	------	---------------------------	------------

Field Code Changed

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
RequestID	Numeric (10)	Mandatory	For transfers (TFR-), the unique ID assigned by the Market Operator <u>AEMO</u> to the Transfer Request. For error corrections (ECNET-), the unique ID assigned by the Market Operator <u>AEMO</u> to the Error Correction Request.	1..1	ChangeRequest/RequestID	xsd:positiveIntegermaxInclusive="9999999999"
ChangeStatusCode	String (4) REQ = Requested PEN = Pending OBJ = Objection COM = Completed CAN = Cancelled [SA ONLY CODES] RCA = RoLR Cancelled RCO = RoLR Completed	Mandatory	Current status of the Change Request. This is "REQ" for: <ul style="list-style-type: none"> TFR-NOTF-CU TFR-NOTF-NO ECNET-NOTF-NO ECNET-NOTF-CU For TFR-WOB-NOTF-IU and TFR-WOB-NOTF-OP, status is "REQ" if no other objections outstanding or "OBJ" if other objections remain. For ECNET-WOB-NOTF-OP and ECNET-WOB-NOTF-PU: If an objection has just been withdrawn, then this will be either "OBJ" – if there are objections still outstanding or "REQ" if there are no other objections.	1..1	ChangeRequest/ChangeStatusCode	xsd:string xsd:maxLength="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ChangeReasonCode	String (4) 0001 = Prospective transfer, in-situ 0002 = Prospective transfer, move in 0003 = Correction of Transfer	Mandatory	Either: <ul style="list-style-type: none"> “0001” or “0002” (the move-in flag) to support transfers or ”0003” to support error corrections <p>It’s value will be the same ChangeReasonCode from the original transfer or error correction request</p>	1..1	ChangeRequest/ChangeData/ChangeReasonCode	xsd:string xsd:maxLength="4"
ProposedDate	Date (10) ccyy-mm-dd	Mandatory	The Earliest Change Date supplied in the original transfer request in the case of transfers or the date of the original transfer that is being corrected in the case of error corrections	1..1	ChangeRequest/ChangeData/ProposedDate	xsd:date
NMI	String(10)	Mandatory	The MIRN in the original Change Request or error correction.	0..1	ChangeRequest/ChangeData/NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	An attribute of NMI	use="optional"	@checksum	xsd:integer" minInclusive="0" maxInclusive="9"
Participant	String (10)	Mandatory for : ECNET-WOB-NOTF-OP ECNET-WOB-NOTF-PU TFR-WOB-NOTF-IU TFR-WOB-NOTF-OP Not Required for: TFR-NOTF-CU TFR-NOTF-NO ECNET-NOTF-NO ECNET-NOTF-CU	The GBO ID of the objecting participant.	1..1	Objection/Participant	xsd:string

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ObjectionID	Numeric (10)	Mandatory for : ECNET-WOB-NOTF-OP ECNET-WOB-NOTF-PU TFR-WOB-NOTF-IU TFR-WOB-NOTF-OP Not Required for: TFR-NOTF-CU TFR-NOTF-NO ECNET-NOTF-NO ECNET-NOTF-CU	The Unique ID assigned by the Market Operator AEMOAEMO to the Objection Request	1..1	Objection/ObjectionID	xsd:positiveIntegermaxInclusive="9999999999"
ObjectingAction	String (Enum) "Raised" or "Withdrawn"	Mandatory for : ECNET-WOB-NOTF-OP ECNET-WOB-NOTF-PU TFR-WOB-NOTF-IU TFR-WOB-NOTF-OP Not Required for: TFR-NOTF-CU TFR-NOTF-NO ECNET-NOTF-NO ECNET-NOTF-CU	"Withdrawn"	1..1	Objection/ObjectionAction	enumerated list of xsd:string values: "Raised", "Withdrawn"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
InitiatingRequestID	Numeric (10)	Mandatory for : ECNET-WOB-NOTF-OP ECNET-WOB-NOTF-PU Mandatory for : TFR-WOB-NOTF-IU TFR-WOB-NOTF-OP Not Required for: TFR-NOTF-CU TFR-NOTF-NO ECNET-NOTF-NO ECNET-NOTF-CU	The same value of RequestID as included above.	1..1	Objection/ObjectionData/InitiatingRequestID	xsd:positiveIntegermaxInclusive="9999999999"
Role	String (4) Values as above	Mandatory for : ECNET-WOB-NOTF-OP ECNET-WOB-NOTF-PU TFR-WOB-NOTF-IU TFR-WOB-NOTF-OP Not Required for: TFR-NOTF-CU TFR-NOTF-NO ECNET-NOTF-NO ECNET-NOTF-CU	Role of the objecting participant	1..1	Objection/ObjectionData/Role	xsd:string xsd:maxLength="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ObjectionCode	String (8) “DECLINED” = No Haulage Contract or ROLR fee is in place.	Mandatory for : ECNET-WOB-NOTF-OP ECNET-WOB-NOTF-PU TFR-WOB-NOTF-IU TFR-WOB-NOTF-OP Not Required for: TFR-NOTF-CU TFR-NOTF-NO ECNET-NOTF-NO ECNET-NOTF-CU	A valid objection reason code that is withdrawn	1..1	Objection/ObjectionData/ObjectionCode	xsd:string xsd:length =“8”
ObjectionDate	Date (10)	Mandatory for : ECNET-WOB-NOTF-OP ECNET-WOB-NOTF-PU TFR-WOB-NOTF-IU TFR-WOB-NOTF-OP Not Required for: TFR-NOTF-CU TFR-NOTF-NO ECNET-NOTF-NO ECNET-NOTF-CU	The date of that the objection was raised.	1..1	Objection/ObjectionData/ObjectionDate	xsd:date

8.1.7.2 *Data flow Definition: Transfer Request Notification Current User (TFR-NOTF-CU)*

This is the notification to the current user to indicate that the transfer request initiated by the incoming user passed business validation and has been accepted.

8.1.7.2.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant xsi:nil="true" />
    <RequestID>550000072</RequestID>
    <ChangeStatusCode>REQ</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0001</ChangeReasonCode>
      <ProposedDate>2004-03-10</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="2">5000000007</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

8.1.7.3 **Data flow Definition: Transfer Request Notification to Network Operator (TFR-NOTF-NO)**

This is the notification to the network operator to indicate that the transfer request initiated by the incoming user passed business validation and has been accepted. The objection cycle is now initiated.

8.1.7.3.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>NO</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>550000072</RequestID>
```



```
<ChangeStatusCode>REQ</ChangeStatusCode>
<ChangeData>
  <ChangeReasonCode>0001</ChangeReasonCode>
  <ProposedDate>2004-03-10</ProposedDate>
  <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
    <NMI checksum="2">5000000007</NMI>
  </NMISTandingData>
</ChangeData>
</ChangeRequest>
</CATSNotification>
```

8.1.7.4 **Data flow Definition: Transfer Objection Withdrawal Notification to Incoming User (TFR-WOB-NOTF-IU)**

This is the notification to the incoming user. This flow indicates that transfer objection withdrawal has been accepted by the Registry and the transfer objection has been withdrawn.

8.1.7.4.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>55000009</RequestID>
    <ChangeStatusCode>REQ</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0001</ChangeReasonCode>
      <ProposedDate>2004-03-10</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000009</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
  <Objection>
```

```
<Participant>ZLN</Participant>
<ObjectionID>65000009</ObjectionID>
<ObjectionAction>Withdrawn</ObjectionAction>
<ObjectionData>
  <InitiatingRequestID>55000009</InitiatingRequestID>
  <Role>NO</Role>
  <ObjectionCode>DECLINED</ObjectionCode>
</ObjectionData>
<ObjectionDate>2004-03-03</ObjectionDate>
</Objection>
</CATSNotification>
```

8.1.7.5 **Data flow Definition: Transfer Objection Withdrawal Notification to Objecting Participant (TFR-WOB-NOTF-OP)**

This is the notification to the participant that lodged the initiating objection. This flow indicates that transfer objection withdrawal has been accepted by the *Registry* and the transfer objection has been withdrawn. Note that a user can only object when they are the ROLR

8.1.7.5.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>NO</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>55000009</RequestID>
    <ChangeStatusCode>REQ</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0001</ChangeReasonCode>
      <ProposedDate>2004-03-10</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000009</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

```
        </NMISTandingData>
      </ChangeData>
    </ChangeRequest>
  <Objection>
    <Participant>ZLN</Participant>
    <ObjectionID>65000009</ObjectionID>
    <ObjectionAction>Withdrawn</ObjectionAction>
    <ObjectionData>
      <InitiatingRequestID>55000009</InitiatingRequestID>
      <Role>NO</Role>
      <ObjectionCode>DECLINED</ObjectionCode>
    </ObjectionData>
    <ObjectionDate>2004-03-03</ObjectionDate>
  </Objection>
</CATSNotification>
```

8.1.7.6 ***Data Flow Definition: Error Correction Notification For Erroneous Transfer to Network Operator (ECNET-NOTF-NO)***

This is notification to the network operator to identify that the particular error correction has been requested.

8.1.7.6.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>NO</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant>ZLS</Participant>
    <RequestID>175000001</RequestID>
    <ChangeStatusCode>REQ</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ProposedDate>2004-06-07</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
```

```
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

8.1.7.7 ***Data Flow Definition: Error Correction Notification For Erroneous Transfer to Current User (ECNET-NOTF-CU)***

This is notification to the current user to identify that the particular error correction has been requested.

8.1.7.7.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant xsi:nil="true" />
    <RequestID>175000001</RequestID>
    <ChangeStatusCode>REQ</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ProposedDate>2004-06-07</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

8.1.7.8 **Dataflow Definition: Error Correction Objection Withdrawal Notification to Objecting Participant (ECNET-WOB-NOTF-OP)**

This is a notification to the participant that has requested the withdrawal of a previously lodged objection that their request was valid and will be processed.

8.1.7.8.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>NO</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant>ZLS</Participant>
    <RequestID>175000001</RequestID>
    <ChangeStatusCode>REQ</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ProposedDate>2004-06-07</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
  <Objection>
    <Participant>ZLN</Participant>
    <ObjectionID>1850000012</ObjectionID>
    <ObjectionAction>Withdrawn</ObjectionAction>
    <ObjectionData>
      <InitiatingRequestID>175000001</InitiatingRequestID>
      <Role>NO</Role>
      <ObjectionCode>DECLINED</ObjectionCode>
    </ObjectionData>
    <ObjectionDate>2004-06-24</ObjectionDate>
  </Objection>
</CATSNotification>
```

</CATSNotification>

8.1.7.9 **Data Flow Definition: Error Correction Objection Withdrawal Notification to Previous User (ECNET-WOB-NOTF-PU)**

To be consistent with the *RMR* this section refers to the previous user, however, for the purposes of the correction of transfer a previous user can be considered to be the same as the incoming user (as per a transfer process).

This is a notification to the current user to identify that there is a withdrawal of a previously lodged objection in progress.

8.1.7.9.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZLS</Participant>
    <RequestID>175000001</RequestID>
    <ChangeStatusCode>REQ</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ProposedDate>2004-06-07</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
  <Objection>
    <Participant>ZLN</Participant>
    <ObjectionID>1850000012</ObjectionID>
    <ObjectionAction>Withdrawn</ObjectionAction>
  </Objection>
</CATSNotification>
```

```
<ObjectionData>  
  <InitiatingRequestID>175000001</InitiatingRequestID>  
  <Role>NO</Role>  
  <ObjectionCode>DECLINED</ObjectionCode>  
</ObjectionData>  
  <ObjectionDate>2004-06-24</ObjectionDate>  
</Objection>  
</CATSNotification>
```

8.1.8 CATSNotification Transaction – “PENDING” Variant

8.1.8.1 *Physical Transaction*

CATSNotification

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Role	String(4) “USER” – User “NO” – Network operator	Mandatory	The role assigned to the recipient. Either: <ul style="list-style-type: none"> • “USER” or “NO” to support TFR-PEND-MI-NOTF • “USER” or “NO” to support TFR-PEND-NOTF • 	1..1	Role	xsd:string xsd:maxLength =“4”
RoleStatus	String(Enum) “N” = New (incoming) “C” = Current	Mandatory	For TFR-PEND-MI-NOTF, TFR-PEND-NOTF and ECNET-PEND-NOTF - “C” for the Network operator and Current User and “N” for the incoming user.	1..1	RoleStatus	Enumerated list of xsd:string “N”, “C”

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Participant	String (10)	Mandatory	<p>If 'Role' = "NO" then:</p> <ul style="list-style-type: none"> Contains the GBO Id of the incoming user that initiated the transfer when sent to the Network Operator. <p>If 'Role' = "USER" or "ROLR" then:</p> <ul style="list-style-type: none"> (1) contains the GBO Id of the current user when sent to the incoming user that initiated the transfer (2) contains the GBO Id of the incoming user that initiated the transfer when sent to the current user 	1..1	ChangeRequest/Participant	xsd:string
RequestID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Transfer Request or error correction	1..1	ChangeRequest/RequestID	xsd:positiveIntegermaxInclusive="9999999999"
ChangeStatusCode	String (4) REQ = Requested PEN = Pending OBJ = Objection COM = Completed CAN = Cancelled [SA ONLY CODES] RCA = RoLR Cancelled RCO = RoLR Completed	Mandatory	For TFR-PEND-MI-NOTF, TFR-PEND-NOTF and ECNET-PEND-NOTF: Current status of the Change Request. In this case, "PEN"	1..1	ChangeRequest/ChangeStatusCode	xsd:string xsd:maxLength="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ChangeReasonCode	String (4) 0001 = Prospective transfer, in-situ 0002 = Prospective transfer, move in 0003 = Correction of Transfer	Mandatory	One of: <ul style="list-style-type: none"> “0002” (move in) to support TFR-PEND-MI-NOTF “0001” to support TFR-PEND-NOTF “0003” to support ECNET-PEND-NOTF 	1..1	ChangeRequest/ChangeData/ChangeReasonCode	xsd:string xsd:maxLength="4"
ProposedDate	Date (10) Ccy-mm-dd	Mandatory	For TFR-PEND-NOTF and TFR-PEND-NOTF: The Earliest Change Date supplied in the original transfer request or error correction. For ECNET-PEND-NOTF: The transfer date of the original transfer transaction to be corrected.	1..1	ChangeRequest/ChangeData/ProposedDate	xsd:date
NMI	String(10)	Mandatory	For TFR-PEND-NOTF and TFR-PEND-NOTF: The MIRN in the original Change Request For ECNET-PEND-NOTF: The MIRN in the original transfer transaction to be corrected.	0..1	ChangeRequest/ChangeData/NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	An attribute of NMI	use="optional"	@checksum	xsd:integer" minInclusive="0"maxInclusive="9"

8.1.8.2 **Data flow Definition: Transfer Pending Notification for move-in (TFR-PEND-MI-NOTF)**

This flow is a notification to all the interested parties (incoming user, current user, and network operator) to communicate that a transfer request for a move in is pending.

8.1.8.2.1 AseXML Example Transaction

To the Current *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant xsi:nil="true" />
    <RequestID>55000010</RequestID>
    <ChangeStatusCode>PEN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ProposedDate>2004-03-10</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000010</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

To the Incoming *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZGI</Participant>
    <RequestID>55000010</RequestID>
    <ChangeStatusCode>PEN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ProposedDate>2004-03-10</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000010</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

```
</ChangeRequest>  
</CATSNotification>
```

To the Network Operator:

```
<CATSNotification version="r10">  
  <Role>NO</Role>  
  <RoleStatus>C</RoleStatus>  
  <ChangeRequest>  
    <Participant>ZGL</Participant>  
    <RequestID>55000010</RequestID>  
    <ChangeStatusCode>PEN</ChangeStatusCode>  
    <ChangeData>  
      <ChangeReasonCode>0002</ChangeReasonCode>  
      <ProposedDate>2004-03-10</ProposedDate>  
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">  
        <NMI checksum="8">5000000010</NMI>  
      </NMISTandingData>  
    </ChangeData>  
  </ChangeRequest>  
</CATSNotification>
```

8.1.8.3 *Data flow Definition: Transfer Request Pending Notification (TFR-PEND-NOTF)*

This flow is a notification to all the interested parties (incoming user, current user, and network operator) to communicate that a transfer request that was **not** for a move in is pending.

8.1.8.3.1 AseXML Example Transaction

To the Current *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant xsi:nil="true" />
    <RequestID>55000001</RequestID>
    <ChangeStatusCode>PEN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ProposedDate>2004-06-07</ProposedDate>
      <NMIStandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMIStandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

To the Incoming *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>55000001</RequestID>
    <ChangeStatusCode>PEN</ChangeStatusCode>
    <ChangeData>
```

```
<ChangeReasonCode>0002</ChangeReasonCode>
<ProposedDate>2004-06-07</ProposedDate>
<NMISTandingData xsi:type="ase:GasStandingData" version="r13">
  <NMI checksum="7">5000000001</NMI>
</NMISTandingData>
</ChangeData>
</ChangeRequest>
</CATSNotification>
```

To the Network Operator:

```
<CATSNotification version="r10">
  <Role>NO</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>55000001</RequestID>
    <ChangeStatusCode>PEN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ProposedDate>2004-06-07</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

8.1.8.4 **Data flow Definition: Error Correction Request Pending Notification (ECNET-PEND-NOTF)**

This flow is a notification to all the interested parties (incoming user, current user, and network operator) to communicate that a error correction request for an erroneous transfer is pending.

8.1.8.4.1 AseXML Example Transaction

To the Current *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant xsi:nil="true" />
    <RequestID>175000001</RequestID>
    <ChangeStatusCode>PEN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ProposedDate>2004-06-07</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

To the Previous *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZLS</Participant>
    <RequestID>175000001</RequestID>
    <ChangeStatusCode>PEN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ProposedDate>2004-06-07</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

```
</ChangeRequest>  
</CATSNotification>
```

To the Network Operator:

```
<CATSNotification version="r10">  
  <Role>NO</Role>  
  <RoleStatus>C</RoleStatus>  
  <ChangeRequest>  
    <Participant>ZLS</Participant>  
    <RequestID>175000001</RequestID>  
    <ChangeStatusCode>PEN</ChangeStatusCode>  
    <ChangeData>  
      <ChangeReasonCode>0003</ChangeReasonCode>  
      <ProposedDate>2004-06-07</ProposedDate>  
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">  
        <NMI checksum="7">5000000001</NMI>  
      </NMISTandingData>  
    </ChangeData>  
  </ChangeRequest>  
</CATSNotification>
```


8.1.9 CATSNotification Transaction – “OBJECTION” Variant

8.1.9.1 Physical Transaction

NOTE: The Date and Time of Processing in the *Registry* shall be stored in the transactionDate attribute of the transaction.

CATSNotification

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Role	String(4) “USER” – User “NO” - Network operator	Mandatory	The role assigned to the recipient. Either: <ul style="list-style-type: none"> “USER” to support TFR-OBJ-NOTF-IU “USER” to support ECNET-OBJ-NOTF-PU 	1..1	Role	xsd:string xsd:maxLength =“4”
RoleStatus	String(Enum) “N” = New (incoming) “C” = Current	Mandatory	The status of this role. Either: <ul style="list-style-type: none"> “N” to support TFR-OBJ-NOTF-IU “N” to support ECNET-OBJ-NOTF-PU (Note here that this is the previous user, but for the purposes of this transaction this user can be considered to be incoming, or “N”ew.) 	1..1	RoleStatus	Enumerated list of xsd:string “N”, “C”.

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Participant	String (10)	Mandatory	For TFR-OBJ-NOTF-IU, this will contain the GBO ID of the participant that initiated the Transfer. For ECNET-OBJ-NOTF-PU, this will contain the GBO ID of the participant that initiated the error correction.	1..1	ChangeRequest/Participant	xsd:string
RequestID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Transfer Request (for TFR-OBJ-NOTF-IU) or Error Correction (for ECNET-OBJ-NOTF-PU)	1..1	ChangeRequest/RequestID	xsd:positiveIntegermaxInclusive="9999999999"
ChangeStatusCode	String (4) REQ = Requested PEN = Pending OBJ = Objection COM = Completed CAN = Cancelled [SA ONLY CODES] RCA = RoLR Cancelled RCO = RoLR Completed	Mandatory	This is the current state of the transfer request. In this case, it will be "OBJ".	1..1	ChangeRequest/ChangeStatusCode	xsd:string xsd:maxLength="4"
ChangeReasonCode	String (4) 0001 = Prospective transfer, in-situ 0002 = Prospective transfer, move in 0003 = Correction of Transfer	Mandatory	For TFR-OBJ-NOTF-IU, since there can be no objections for a move-in this data element must take a value of "0001" which will be the value from the original transfer request. For ECNET-OBJ-NOTF-PU, this will be populated with "0003"	1..1	ChangeRequest/ChangeData/ChangeReasonCode	xsd:string xsd:maxLength="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ProposedDate	Date (10) ccyy-mm-dd	Mandatory	This is the earliest change date from the original transfer request or the date of the original transfer for error correction.	1..1	ChangeRequest/ChangeData/ProposedDate	xsd:date
InitiatingRequestID	Numeric(10)	Not Required			ChangeRequest/ChangeData/InitiatingRequestID	xsd:positiveIntegermaxInclusive="9999999999"
NMI	String(10)	Mandatory	From the Change Request	0..1	ChangeRequest/ChangeData/NMI	xsd:stringlength="10"
Checksum	Integer(1)	Mandatory	An attribute of NMI	use="optional"	@checksum	xsd:integer"minInclusive="0"maxInclusive="9"
Participant	String (10)	Mandatory	The GBO ID of the objecting participant.	1..1	Objection/Participant	xsd:string
ObjectionID	Numeric (10)	Mandatory	Unique ID assigned by the Market Operator AEMO to the Objection Request	1..1	Objection/ObjectionID	xsd:positiveIntegermaxInclusive="9999999999"
ObjectingAction	String (Enum) "Raised" or "Withdrawn"	Mandatory	In this case "Raised"	1..1	Objection/ObjectionAction	enumerated list of xsd:stringvalues "R"aised", "W"ithdrawn"
InitiatingRequestID	Numeric (10)	Mandatory	This is a copy of RequestID included above.	1..1	Objection/ObjectionData/InitiatingRequestID	xsd:positiveIntegermaxInclusive="9999999999"
Role	String (4) Values as above	Mandatory	Role of the objecting participant: <ul style="list-style-type: none"> "NO" or "ROLR" to support TFR-OBJ-NOTF-IU "NO" or "CU" to support ECNET-OBJ-NOTF-PU 	1..1	Objection/ObjectionData/Role	xsd:string xsd:maxLength="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ObjectionCode	String (8) "DECLINED"	Mandatory	Valid objection reason code For TFR-OBJ-NOTF-IU, "DECLINED" = No Haulage Contract is in place. For ECNET-OBJ-NOTF- PU, "DECLINED" = The original delivery point transaction is believed to be correct/ the correction notice contains incorrect information	1..1	Objection/ObjectionDa ta/ObjectionCode	xsd:string xsd:length ="8"
ObjectionDate	Date (10)	Mandatory	The date that the objection was processed by the GRMS.	1..1	Objection/ObjectionDa te	xsd:date

8.1.9.2 Data flow Definition: Transfer Request Objection Notification to Incoming User (TFR-OBJ-NOTF-IU)

This is the notification to the incoming user that lodged the initiating transfer. This flow indicates that a transfer objection has been accepted by the *Registry*.

8.1.9.2.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>550000072</RequestID>
    <ChangeStatusCode>OBJ</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0001</ChangeReasonCode>
      <ProposedDate>2004-03-10</ProposedDate>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

```
<NMISTandingData xsi:type="ase:GasStandingData" version="r13">
  <NMI checksum="2">5000000007</NMI>
</NMISTandingData>
</ChangeData>
</ChangeRequest>
<Objection>
  <Participant>ZLN</Participant>
  <ObjectionID>650000072</ObjectionID>
  <ObjectionAction>Raised</ObjectionAction>
  <ObjectionData>
    <InitiatingRequestID>550000072</InitiatingRequestID>
    <Role>NO</Role>
    <ObjectionCode>DECLINED</ObjectionCode>
  </ObjectionData>
  <ObjectionDate>2004-02-27</ObjectionDate>
</Objection>
</CATSNotification>
```

8.1.9.3 Data Flow Definition: Error Correction Objection Notification to previous user (ECNET-OBJ-NOTF-PU)

To be consistent with the *RMR* this section refers to the previous user, however, for the purposes of the correction of transfer a previous user can be considered to be the same as the incoming user (as per a transfer process).

This is a notification to the current user to identify that an objection has been received and is being processed.

8.1.9.3.1 AseXML Example Transaction

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZLS</Participant>
```

```
<RequestID>175000001</RequestID>
<ChangeStatusCode>OBJ</ChangeStatusCode>
<ChangeData>
  <ChangeReasonCode>0003</ChangeReasonCode>
  <ProposedDate>2004-06-07</ProposedDate>
  <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
    <NMI checksum="7">5000000001</NMI>
  </NMISTandingData>
</ChangeData>
</ChangeRequest>
<Objection>
  <Participant>ZLN</Participant>
  <ObjectionID>1850000012</ObjectionID>
  <ObjectionAction>Raised</ObjectionAction>
  <ObjectionData>
    <InitiatingRequestID>175000001</InitiatingRequestID>
    <Role>NO</Role>
    <ObjectionCode>DECLINED</ObjectionCode>
  </ObjectionData>
  <ObjectionDate>2004-06-24</ObjectionDate>
</Objection>
</CATSNotification>
```

8.1.10 CATSNotification Transaction – “CANCELLED” Variant

8.1.10.1 Physical Transaction

CATSNotification

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Role	String(4) “USER” – User “NO” – Network operator	Mandatory	The role assigned to the recipient, either “USER” or “NO”	1..1	Role	xsd:string xsd:maxLength =“4”
RoleStatus	String(Enum) “N” = New (incoming) “C” = Current	Mandatory	For TFR-CAN-NOTF, “C” for current roles and “N” for the incoming user. For ECNET-CAN-NOTF, “C” for current roles and for the previous user, this will be “N”, since this previous user can be considered to be the incoming user in this process.	1..1	RoleStatus	Enumerated list of xsd:string “N”, “C”.
Participant	String (10)	Optional	This will contain the GBO ID of the participant that initiated the Transfer. For TFR-CAN-NOTF and ECNET-CAN-NOTF , When sent to the current user this value is simply populated with xsi:nil = “true”	1..1	ChangeRequest/Participant	xsd:string
RequestID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Transfer or error correction	1..1	ChangeRequest/RequestID	xsd:positiveIntegermaxInclusive =“9999999999”

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ChangeStatusCode	String (4) REQ = Requested PEN = Pending OBJ = Objection COM = Completed CAN = Cancelled [SA ONLY CODES] RCA = RoLR Cancelled RCO = RoLR Completed	Mandatory	The value is "CAN" For cancelled transactions in a RoLR event, the allowable value is "RCA".	1..1	ChangeRequest/ChangeStatusCode	xsd:string xsd:maxLength="4"
ChangeReasonCode	String (4) 0001 = Prospective transfer, in-situ 0002 = Prospective transfer, move in 0003 = Correction of Transfer	Mandatory	This element will take the value from the original transfer request. Either: <ul style="list-style-type: none"> "0001" or "0002" (for a move-in) to support TFR-CAN-NOTF "0003" to support ECNET-CAN-NOTF 	1..1	ChangeRequest/ChangeData/ChangeReasonCode	xsd:string xsd:maxLength="4"
ProposedDate	Date (10) Cyy-mm-dd	Mandatory	The earliest Change Date from the change request or that date that the transfer originally took place for error correction	1..1	ChangeRequest/ChangeData/ProposedDate	xsd:date
NMI	String(10)	Mandatory	The MIRN	0..1	ChangeRequest/ChangeData/NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	An attribute of NMI	use="optional"	@checksum	xsd:integer" minInclusive="0"maxInclusive="9"

8.1.10.2 Data flow Definition: Transfer Cancellation Notification (TFR-CAN-NOTF)

This is a notification to all interested parties (incoming user, current user and network operator) that the specified transfer request has been cancelled. That is, either

- a transfer objection was received but no objection withdrawal followed within the allowable withdrawal period. This notification provides the reason for the cancellation.
- No actual value was received within the required 7 business days – for the move-in
- No actual value was received within the allowable period – for the non move-in.

8.1.10.2.1 AseXML Example Transaction

To the Current *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant xsi:nil="true" />
    <RequestID>175000010</RequestID>
    <ChangeStatusCode>CAN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ProposedDate>2004-03-10</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000010</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

To the Incoming *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
```

```
<RequestID>175000010</RequestID>
<ChangeStatusCode>CAN</ChangeStatusCode>
<ChangeData>
  <ChangeReasonCode>0002</ChangeReasonCode>
  <ProposedDate>2004-03-10</ProposedDate>
  <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
    <NMI checksum="8">5000000010</NMI>
  </NMISTandingData>
</ChangeData>
</ChangeRequest>
</CATSNotification>
```

To the Network Operator:

```
<CATSNotification version="r10">
  <Role>NO</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>175000010</RequestID>
    <ChangeStatusCode>CAN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ProposedDate>2004-03-10</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000010</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

8.1.10.3 Data Flow Definition: Error Correction Cancellation Notification (ECNET-CAN-NOTF)

To be consistent with the *RMR* this section refers to the previous user, however, for the purposes of the correction of transfer a previous user can be considered to be the same as the incoming user (as per a transfer process).

This is a notification to the current user, previous user and network operator to identify that an error correction has been cancelled.
This would be because there was an objection, but no objection withdrawal received within the required period.

8.1.10.3.1 AseXML Example Transaction

To the Current *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant xsi:nil="true"/>
    <RequestID>11036</RequestID>
    <ChangeStatusCode>CAN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ProposedDate>2003-11-23</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000010</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

To the Previous *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>XGL</Participant>
    <RequestID>11036</RequestID>
    <ChangeStatusCode>CAN</ChangeStatusCode>
    <ChangeData>
```

```
<ChangeReasonCode>0003</ChangeReasonCode>
<ProposedDate>2003-11-23</ProposedDate>
<NMISTandingData xsi:type="ase:GasStandingData" version="r13">
  <NMI checksum="8">5000000010</NMI>
</NMISTandingData>
</ChangeData>
</ChangeRequest>
</CATSNotification>
```

To the Network Operator:

```
<CATSNotification version="r10">
  <Role>NO</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant>XGL</Participant>
    <RequestID>11036</RequestID>
    <ChangeStatusCode>CAN</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ProposedDate>2003-11-23</ProposedDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000010</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

8.1.11 CATSNotification Transaction – “COMPLETED” Variant

8.1.11.1 Physical Transaction

CATSNotification

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Role	String(4) “USER” – User “NO” - Network operator	Mandatory	The role assigned to the recipient. In this case either “USER” or “NO”	1..1	Role	xsd:string xsd:maxLength =“4”
RoleStatus	String(Enum) “N” = New (incoming) “C” = Current	Mandatory	For TFR-CONF-NOTF, “C” for the Network operator and Current User and “N” for the incoming user. For ECNET-CONF-NOTF, “C” for the Network operator and Current User and for the Previous user “N”, since this user can be considered to be the incoming user in this process.	1..1	RoleStatus	Enumerated list of xsd:string "N", "C".

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Participant	String (10)	Mandatory	For TFR-CONF-NOTF and ECNET-CONF-NOTF: <ul style="list-style-type: none"> contains the GBO Id of the incoming user that initiated the transfer when sent to the Network Operator. (1) contains the GBO Id of the current user when sent to the incoming user that initiated the transfer (2) contains the GBO Id of the incoming user that initiated the transfer when sent to the current user 	1..1	ChangeRequest/Participant	xsd:string
RequestID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Transfer Request or error correction	1..1	ChangeRequest/RequestID	xsd:positiveIntegermaxInclusive="9999999999"
ChangeStatusCode	String (4) REQ = Requested PEN = Pending OBJ = Objection COM = Completed CAN = Cancelled [SA ONLY CODES] RCA = RoLR Cancelled RCO = RoLR Completed	Mandatory	Current status of the Change Request. In this case, "COM" For accelerated transactions in a RoLR event, the allowable value is "RCO".	1..1	ChangeRequest/ChangeStatusCode	xsd:string xsd:maxLength="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ChangeReasonCode	String (4) 0001 = Prospective transfer, in-situ 0002 = Prospective transfer, move in 0003 = Correction of Transfer	Mandatory	Either: <ul style="list-style-type: none"> “0001” or “0002” (for a move-in) to support TFR-CONF-NOTF “0003” to support ECNET-CONF-NOTF It's value will be the same ChangeReasonCode from the original transfer request.	1..1	ChangeRequest/ChangeData/ChangeReasonCode	xsd:string xsd:maxLength="4"
ActualChangeDate	Date (10) ccyy-mm-dd	Mandatory for TFR-CONF-NOTF Mandatory for ECNET-CONF-NOTF	For a transfer, this is the date when the transfer completes. This is the meter read date provided by the network operator. For error correction, this is the date when the transfer which is being corrected was completed.	1..1	ChangeRequest/ChangeData/ActualChangeDate	xsd:date
NMI	String(10)	Mandatory	The MIRN in the original Change Request	0..1	ChangeRequest/ChangeData/NMI	xsd:stringlength="10"
Checksum	Integer(1)	Mandatory	An attribute of NMI	use="optional"	@checksum	xsd:integer minInclusive="0"maxInclusive="9"

8.1.11.2 *Data flow Definition: Transfer Confirmation Notification (TFR-CONF-NOTF)*

This flow is a notification to all the interested parties (incoming user, current user, and network operator) to communicate that an actual value has been received for the delivery point to be transferred. This confirms the transfer.

8.1.11.2.1 AseXML Example Transaction

To the Current *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant xsi:nil="true"/>
    <RequestID>11036</RequestID>
    <ChangeStatusCode>COM</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ActualChangeDate>2003-11-25</ActualChangeDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000010</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

To the Incoming *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>1750000101</RequestID>
    <ChangeStatusCode>COM</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ActualChangeDate>2004-03-01</ActualChangeDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="8">5000000010</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```



```
</ChangeRequest>
</CATSNotification>
```

To the Network Operator:

```
<CATSNotification version="r10">
  <Role>NO</Role>
  <RoleStatus>C</RoleStatus>
  <ChangeRequest>
    <Participant>ZGL</Participant>
    <RequestID>55000001</RequestID>
    <ChangeStatusCode>COM</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0002</ChangeReasonCode>
      <ActualChangeDate>2004-06-07</ActualChangeDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

8.1.11.3 Data Flow Definition: Error Correction Notice Confirmation Notification (ECNET-CONF-NOTF)

To be consistent with the *RMR* this section refers to the previous user, however, for the purposes of the correction of transfer a previous user can be considered to be the same as the incoming user (as per a transfer process).

This is a notification to the current user, network operator and previous user that the requested error correction is complete.

8.1.11.3.1 AseXML Example Transaction

To the Current User:

```
<CATSNotification version="r10">
  <Role>USER</Role>
```

```
<RoleStatus>C</RoleStatus>
<ChangeRequest>
  <Participant xsi:nil="true" />
  <RequestID>175000001</RequestID>
  <ChangeStatusCode>COM</ChangeStatusCode>
  <ChangeData>
    <ChangeReasonCode>0003</ChangeReasonCode>
    <ActualChangeDate>2004-06-07</ActualChangeDate>
    <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
      <NMI checksum="7">5000000001</NMI>
    </NMISTandingData>
  </ChangeData>
</ChangeRequest>
</CATSNotification>
```

To the Previous *User*:

```
<CATSNotification version="r10">
  <Role>USER</Role>
  <RoleStatus>N</RoleStatus>
  <ChangeRequest>
    <Participant>ZLS</Participant>
    <RequestID>175000001</RequestID>
    <ChangeStatusCode>COM</ChangeStatusCode>
    <ChangeData>
      <ChangeReasonCode>0003</ChangeReasonCode>
      <ActualChangeDate>2004-06-07</ActualChangeDate>
      <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="7">5000000001</NMI>
      </NMISTandingData>
    </ChangeData>
  </ChangeRequest>
</CATSNotification>
```

To the Network Operator:

```
<CATSNotification version="r10">
```

```
<Role>NO</Role>
<RoleStatus>C</RoleStatus>
<ChangeRequest>
  <Participant>ZLS</Participant>
  <RequestID>175000001</RequestID>
  <ChangeStatusCode>COM</ChangeStatusCode>
  <ChangeData>
    <ChangeReasonCode>0003</ChangeReasonCode>
    <ActualChangeDate>2004-06-07</ActualChangeDate>
    <NMISTandingData xsi:type="ase:GasStandingData" version="r13">
      <NMI checksum="7">5000000001</NMI>
    </NMISTandingData>
  </ChangeData>
</ChangeRequest>
</CATSNotification>
```

8.1.12 CATSObjectionRequest Transaction

8.1.12.1 Physical Transaction

CATSObjectionRequest

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
InitiatingRequestID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Transfer Request or error correction that is being objected to.	1..1	InitiatingRequestID	xsd:positiveIntegermaxInclusive ="9999999999"
Role	String(4) "USER" – User "NO" – Network operator "ROLR" – Retailer of Last Resort	Mandatory	The Role of the objecting party. Either: <ul style="list-style-type: none"> • "NO" to support TFR-OBJ-NO • "ROLR" to support TFR-OBJ-ROLR • "NO" to support ECNET-OBJ-NO • "USER" to support ECNET-OBJ-CU 	1..1	Role	xsd:string xsd:max"Length ="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ObjectionCode	String (8) "DECLINED"	Mandatory	Must be a valid objection reason code. "DECLINED" = No Haulage Contract is in place for TFR-OBJ-NO "DECLINED" = The ROLR fee has not been paid for TFR-OBJ-ROLR "DECLINED" = The original delivery point transaction is believed to be correct/ the correction notice contains incorrect information for ECNET-OBJ-CU and ECNET-OBJ-NO	1..1	ObjectionCode	Xsd:string xsd:length ="8"

8.1.12.2 *Data flow Definition: Transfer Objection by Network Operator (TFR-OBJ-NO)*

This is the objection that may be submitted by the network operator, provided that the transfer request is not a move in. It may only be an objection on the grounds that the incoming user has not entered into a haulage contract with the network operator.

8.1.12.2.1 AseXML Example Transaction

```
<CATSObjectionRequest version="r4">
  <InitiatingRequestID>175000001</InitiatingRequestID>
  <Role>NO</Role>
  <ObjectionCode>DECLINED</ObjectionCode>
</CATSObjectionRequest>
```

8.1.12.2.2 Event Codes

Event Code Number
202,3007,3013,3016,3018,3028,3030,3031,3032

Note: In all cases the severity of each event will be “Error”.

8.1.12.3 *Data flow Definition: Transfer Request Objection by ROLR (TFR-OBJ-ROLR)*

This flow is only applicable in Western Australia. It is the objection by a ROLR for a non move in on the grounds that the ROLR fee has not been paid by the transferring customer.

8.1.12.3.1 AseXML Example Transaction

```
<CATSObjectionRequest version="r4">  
  <InitiatingRequestID>55000008</InitiatingRequestID>  
  <Role>ROLR</Role>  
  <ObjectionCode>DECLINED</ObjectionCode>  
</CATSObjectionRequest>
```

8.1.12.3.2 Event Codes

Event Code Number
202,3007,3013,3016,3018,3028,3030,303,3032

Note: In all cases the severity of each event will be “Error”.

8.1.12.4 ***Data Flow Definition: Error Correction Notice For Erroneous Transfer Objection by Network Operator (ECNET-OBJ-NO)***

This is an objection notification by the network operator to identify the objection and the reason.

8.1.12.4.1 AseXML Example Transaction

```
<CATSObjectionRequest version="r4">  
  <InitiatingRequestID>175000001</InitiatingRequestID>  
  <Role>NO</Role>  
  <ObjectionCode>DECLINED</ObjectionCode>  
</CATSObjectionRequest>
```

8.1.12.4.2 Event Codes

Event Code Number
202,3007,3013,3016,3018,3028,3030,3031,3032

Note: In all cases the severity of each event will be “Error”.

8.1.12.5

8.1.12.6 *Data Flow Definition: Error Correction Objection by Current User (ECNET-OBJ-CU)*

This is an objection notification by the current user to identify the objection and the objection reason.

8.1.12.6.1 AseXML Example Transaction

```
<CATSObjectionRequest version="r4">  
  <InitiatingRequestID>1750000022</InitiatingRequestID>  
  <Role>USER</Role>  
  <ObjectionCode>DECLINED</ObjectionCode>  
</CATSObjectionRequest>
```

8.1.12.6.2 Event Codes

Event Code Number
202,3007,3013,3016,3018,3028,3030,3031,3032

Note: In all cases the severity of each event will be “Error”.

8.1.13 CATSObjectionResponse Transaction

8.1.13.1 Physical Transaction

NOTE: The Date and Time of Processing in the *Registry* shall be stored in the transactionDate attribute of the transaction.

NOTE: The initiatingTransactionID allows a participant to identify the associated CATSObjectionRequest.

CATSObjectionResponse

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ObjectionID	Numeric (10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the Objection	1..1	ObjectionID	xsd:positiveIntegermaxInclusive="9999999999"
Event	Numeric (10,0)	Mandatory	"0": A value of zero will be returned to indicate that the objection has been accepted.	1..n	Event/Code	xsd:nonNegativeInteger
Class	Enumerated String	Mandatory	"Message" Note: Although optional in the schema, must be set to avoid default value being used	use="optional"	@class	xsd:string
Severity	Enumerated String	Mandatory	"Information" Note: Although optional in the schema, must be set to avoid default value being used	use="optional"	@severity	xsd:string

8.1.13.2 Data flow Definition: Transfer Objection Notification to Objecting Participant (TFR-OBJ-NOTF-OP)

This is the notification to the participant that lodged the initiating objection. This flow indicates that transfer objection has been accepted by the *Registry*.

8.1.13.2.1 AseXML Example Transaction

```
<CATSObjectionResponse version="r4">  
  <ObjectionID>11035</ObjectionID>  
  <Event severity="Information" class="Message">  
    <Code>0</Code>  
  </Event>  
</CATSObjectionResponse>
```

8.1.13.3 *Data Flow Definition: Error Correction Objection Notification to objecting participant (ECNET-OBJ-NOTF-OP)*

This is a notification to the objecting participant to identify that their objection has been received and is being processed.

8.1.13.3.1 AseXML Example Transaction

```
<CATSObjectionResponse version="r4">  
  <ObjectionID>11037</ObjectionID>  
  <Event severity="Information" class="Message">  
    <Code>0</Code>  
  </Event>  
</CATSObjectionResponse>
```

8.1.14 CATSObjectionWithdrawal Transaction

8.1.14.1 Physical Transaction

CATSObjectionWithdrawal

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ObjectionID	Numeric (10)	Mandatory	The ID assigned by the Market Operator AEMO to the Objection Request	1..1	ObjectionID	xsd:positiveIntegermaxInclusive ="9999999999"
InitiatingRequestID	Numeric (10)	Mandatory	The ID assigned by the Market Operator AEMO to the Transfer Request or error correction	1..1	InitiatingRequestID	xsd:positiveIntegermaxInclusive ="9999999999"
Role	String(4) "USER" – User "NO" - Network operator "ROLR" – Retailer of Last Resort	Mandatory	Role initiating the withdrawal: Either: <ul style="list-style-type: none"> "NO" or "USER" for ECNET-WOB "NO", or "ROLR" for TFR-WOBJ 	1..1	Role	xsd:string xsd:maxLength ="4"
ObjectionCode	String (8) "DECLINED"	Mandatory	A valid objection reason. Either: <ul style="list-style-type: none"> "DECLINED" = The original delivery point transaction is believed to be correct/ the correction notice contains incorrect information for ECNET-WOB "DECLINED" = No Haulage Contract is in place for TFR-WOBJ 	1..1	ObjectionCode	Xsd:string xsd:length ="8"

8.1.14.2 **Data Flow Definition: Error Correction Objection Withdrawal Notice (ECNET-WOB)**

This is a notification from the network operator or the current user to identify that their request withdraw a previous objection.

8.1.14.2.1 AseXML Example Transaction

```
<CATSObjectionWithdrawal version="r4">  
  <ObjectionID>1850000021</ObjectionID>  
  <InitiatingRequestID>1750000022</InitiatingRequestID>  
  <Role>NO</Role>  
  <ObjectionCode>DECLINED</ObjectionCode>  
</CATSObjectionWithdrawal>
```

8.1.14.2.2 Event Codes

Event Code Number
202,3007,3018,3027,3029,3031-3033,3407

Note: In all cases the severity of each event will be “Error”.

8.1.14.3 **Data flow Definition: Transfer Objection Withdrawal (TFR-WOBJ)**

A flow to ~~the Market Operator~~ [AEMO](#) to indicate the a participant would like to withdraw an objection that the participant had lodged previously.

8.1.14.3.1 AseXML Example Transaction

```
<CATSObjectionWithdrawal version="r4">
```

[SAWA INTERFACE CONTROL DOCUMENT V4.6 \(MARKED UP\)](#) [SAWA
INTERFACE CONTROL DOCUMENT V4.4 \(CLEAN\).DOCX](#)
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Field Code Changed

```
<ObjectionID>65000006</ObjectionID>  
<InitiatingRequestID>55000006</InitiatingRequestID>  
<Role>NO</Role>  
<ObjectionCode>DECLINED</ObjectionCode>  
</CATSObjectionWithdrawal>
```

8.1.14.3.2 Event Codes

Event Code Number
202,3007, 3018, 3027-3029,3031-3033,3407

Note: In all cases the severity of each event will be “Error”.

8.1.15 CATSChangeAlert Transaction

8.1.15.1 Physical Transaction

NOTE: The Current User GBO ID will be identified in the message header.

CATSChangeAlert

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
InitiatingRequestID	Numeric (10)	Mandatory	The ID assigned by the Market Operator AEMO to the associated Transfer Request	1..1	InitiatingRequestID	xsd:positiveIntegermaxInclusive="9999999999"
Role	String(4) "USER" – User "NO" – Network operator "ROLR" – Retailer of Last Resort	Mandatory	Per the party that raised the CATSChangeAlert. (Currently support 'USER')	1..1	Role	xsd:string xsd:maxLength="4"
RoleStatus	String(10)	Mandatory	Per the party that raised the CATSChangeAlert. (Currently support 'C')	1..1	RoleStatus	xsd:string length="10"
Participant	String (10)	Mandatory	The GBO Id of the user initiating the transaction	1..1	Participant	xsd:string
Code	Numeric (10,0)	Mandatory if Event element is present	The event code which is to be passed from the current user to the incoming user via the Market Operator AEMO . For CATSChangeAlert transactions which are lodged with GRMS, the Event element is mandatory.	1..n	Event/Code	xsd:nonNegativeInteger
Severity	Enumerated String	Mandatory if Event element is present (and must not be 'Fatal')	The severity element of the event which is to be passed from the current user to the incoming user via the Market Operator AEMO .	use="optional"	@severity	xsd:string

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Class	Enumerated String	Optional	The Class element of the event which is to be passed from the current user to the incoming user via the Market Operator AEMO .	use="optional"	@class	xsd:string
Explanation	String	Optional	The Explanation element of the event containing information which is to be passed from the current user to the incoming user via the Market Operator AEMO . Note that this will be limited to <u>250 characters</u> in GRMS.	1..1	Event/Explanation	xsd:string

8.1.15.2 Data flow Definition: Transfer Change Alert from Current User (TFR-ALERT-CU)

A transfer change alert is a notice from a current user to the *Registry* in order to pass information from the current user to the incoming user (via ~~the Market Operator~~ [AEMO](#)) for a delivery point, whilst a transfer for that delivery point is in progress.

8.1.15.2.1 AseXML Example

```
<CATSChangeAlert version="r9">
  <InitiatingRequestID>11000</InitiatingRequestID>
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <Participant>XLN</Participant>
  <Event severity="Information" class="Message">
    <Code>3333</Code>
    <Explanation>This is an event explanation</Explanation>
  </Event>
</CATSChangeAlert>
```

8.1.15.2.2 Event Codes

Event Code Number
201, 202, 3007, 3016, 3018, 3031, 3407

Note: In all cases the severity of each event will be “Error”.

Note: Multiple event codes may be sent where the transaction is rejected by GRMS following failure of more than one validation step.

8.1.15.3 *Data Flow Definition: Transfer Change Alert to Incoming User (TFR-ALERT-IU)*

A transfer change alert is a notice from the *Registry* to the incoming user which passes on information from the current user for a delivery point, whilst a transfer for that delivery point is in progress.

8.1.15.3.1 AseXML Example

```
<CATSChangeAlert version="r9">
  <InitiatingRequestID>11000</InitiatingRequestID>
  <Role>USER</Role>
  <RoleStatus>C</RoleStatus>
  <Participant>XLN</Participant>
  <Event severity="Information" class="Message">
    <Code>3333</Code>
    <Explanation>This is an event explanation</Explanation>
  </Event>
</CATSChangeAlert>
```


8.2 Deliver Standing Data

8.2.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
<i>NMISstandingDataUpdateNotification/SingleNMISstandingData (new transaction)</i>		DSD	The Registry	Current user/ Network Operator	aseXML	MDMT	53 69	2.2.30 3.1.7

8.2.2 Code Summary

This table is a complete list of those codes used to uniquely identify each particular flow.

Identifier	Data Flow Name
DSD	Deliver Standing Data

8.2.3 NMISstandingDataUpdateNotification/SingleNMISstandingData Transaction

8.2.3.1 Physical Transaction

NOTE: A RoleAssignment will be provided for each of the ROLR, Network Operator and Current User.

NOTE: The gas zone will be encoded into the HeatingValuezone(string(3) – subnetwork and heating value zone) and TransmissionZone(integer(2) – network operator and licence area) (as per RMR appendix 1)

NMISstandingDataUpdateNotification/SingleNMISstandingData:

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
NMI	String(10)	Mandatory	The MIRN	1..1	GasStandingDataUpdate/ NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	The MIRN Checksum	Use="optional"	@checksum	xsd:integer" minInclusive="0" maxInclusive="9"
TransmissionZone	Integer(2)	Optional	This will contain the encoding of network operator and licence areas (Identified as A and B and defined in RMR appendix 1). This forms part of the gas zone code.	0..1	GasStandingDataUpdate/ MasterData	xsd:integer totalDig="2"
HeatingValueZone	String(3)	Optional	This will contain the encoding of sub-network and heating value zone (Identified as CC and D and defined in RMR appendix 1). This forms part of the gas zone code.	0..1	GasStandingDataUpdate/ MasterData	xsd:string maxLen="3"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
MIRNStatus	String(Enum) “Registered” = a service inlet has been installed at the delivery point “Commissioned”=Commissioned and not decommissioned or permanently removed (including after the delivery point has been reconnected) “Decommissioned”= disconnected (temporary) “Deregistered”= Permanently Removed	Optional	This contains the status of the MIRN.	0..1	GasStandingDataUpdate/ MasterData	An enumerated list of xsd:string values: “Registered”, “Commissioned”, “Decommissioned”, “Deregistered”
BaseLoad	Decimal	Optional	This contains the non sensitive base load for the delivery point.	0..1	GasStandingDataUpdate/ MasterData	xsd:decimal totalDig="9" fracDig="1"
TemperatureSensitivityFactor	Decimal	Optional	This contains the temperature sensitivity heating rate for the delivery point.	0..1	GasStandingDataUpdate/ MasterData	xsd:decimal totalDig="9" fracDig="2"
MIRNCommissionedDate	Date	Optional	This contains the date on which the MIRN was commissioned.	0..1	GasStandingDataUpdate/ MasterData	xsd:date
SmallUseCustomer	Boolean	Optional	In WA: This contains a value to indicate whether the delivery point satisfies the criteria required to be a small use customer. In SA: This holds the small use customer indicator, as defined in the BS.	0..1	GasStandingDataUpdate/ MasterData	xsd:Boolean

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
Party	String(10)	Optional	This identifies the GBO identifier of the participant that is associated with the delivery point, taking on the Role identified by the corresponding Role found in "RoleAssignment/ Role" There will be as many RoleAssignments as necessary to communicate the data changes to the contracted parties, but at most one for each of the Roles "USER", "ROLR" and "NO"	0..1	RoleAssignments/ RoleAssignment/ Party	xsd:string
Role	String(4)	Optional	This identifies the Role of the participant as identified in "RoleAssignment/ Party" in the context of the delivery point. The Role may be: "USER"- Retailer "ROLR"-Retailer of Last Resort "NO"- Network Operator There will be as many RoleAssignments as necessary to communicate the data changes to the contracted parties, but at most one for each of "USER", "ROLR" and "NO".	1..1	RoleAssignments/ RoleAssignment/ Role	xsd:string maxLen="4"
SupplyPointCode	String(Enum) "Basic"=A basic meter "Interval"=An interval meter	Optional	This provides the information about the type of meter installed at the delivery point.	0..1	MeterData/ SupplyPointCode	An enumerated list of xsd:string values: "Basic", "Interval", "Transmission"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
LastModifiedDateTime	Date (with time)	Mandatory	This identifies the date and time at which the delivery point was last modified in the AEMO RegistryAEMO Registry. Note that the time component will always be set to the start of the gas day (transmitted in GMT+10 format).	1..1	LastModifiedDateTime	xsd:dateTime
LastModifiedBy	String(10)	Optional	This identifies the GBO identifier of the participant that initiated the last change to the AEMO RegistryAEMO Registry.	0..1	LastModifiedBy	xsd:string
DataChangeReasonCode	String See 0 for a list of allowable values and descriptions	Optional	The reason code used to identify the reason for the distribution of standing data.	0..1	DataChangeReasonCode	xsd:string
Description	The description associated with the change reason code. See 0 for a list of allowable values and descriptions	Optional	The text description associated with the DataChangeReasonCode	0..1	DataChangeReasonCode @description	xsd:string

8.2.3.2 Data Flow Definition: Deliver Standing Data (DSD)

This is a mechanism for distributing Market Operator standing data to the market.

8.2.3.2.1 AseXML Example Transaction

The following examples are provided to demonstrate ~~the Market Operator~~[AEMO](#) Standing Data that will be provided during various business scenarios. Each elements contain test data and so data values should not be relied on, however these examples accurately reflect which fields will be populated for the given circumstance.

On Completion of a Transfer:

This transaction reflects the data that will be provided to the Current User on completion of a Transfer in South Australia:

```
<NMIStandingDataUpdateNotification version="r9">
  <SingleNMIStandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <BaseLoad>8880871.8</BaseLoad>
      <TemperatureSensitivityFactor>7770871.77</TemperatureSensitivityFactor>
      <TransmissionZone>18</TransmissionZone>
      <HeatingValueZone>121</HeatingValueZone>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2003-09-01</MIRNCommissionedDate>
      <SmallUseCustomer>false</SmallUseCustomer>
    </MasterData>
    <RoleAssignments>
      <RoleAssignment>
        <Party>BG_ROLR-01</Party>
        <Role>ROLR</Role>
      </RoleAssignment>
      <RoleAssignment>
        <Party>AGNNWOP-01</Party>
        <Role>NO</Role>
      </RoleAssignment>
      <RoleAssignment>
        <Party>AGNUSER-01</Party>
        <Role>USER</Role>
      </RoleAssignment>
    </RoleAssignments>
    <MeterData>
      <SupplyPointCode>Basic</SupplyPointCode>
    </MeterData>
    <LastModifiedDateTime>2003-11-25T00:06:30.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>AGNNWOP-01</LastModifiedBy>
    <DataChangeReasonCode description="Transfer">DCR001</DataChangeReasonCode>
  </SingleNMIStandingData>
</NMIStandingDataUpdateNotification>
```

This transaction reflects the data that will be provided to the Current User on completion of a Transfer in West Australia:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <TransmissionZone>18</TransmissionZone>
      <HeatingValueZone>121</HeatingValueZone>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2003-09-01</MIRNCommissionedDate>
      <SmallUseCustomer>false</SmallUseCustomer>
    </MasterData>
    <RoleAssignments>
      <RoleAssignment>
        <Party>BG_ROLR-01</Party>
        <Role>ROLR</Role>
      </RoleAssignment>
      <RoleAssignment>
        <Party>AGNNWOP-01</Party>
        <Role>NO</Role>
      </RoleAssignment>
      <RoleAssignment>
        <Party>AGNUSER-01</Party>
        <Role>USER</Role>
      </RoleAssignment>
    </RoleAssignments>
    <MeterData>
      <SupplyPointCode>Basic</SupplyPointCode>
    </MeterData>
    <LastModifiedDateTime>2003-11-25T00:10:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>AGNNWOP-01</LastModifiedBy>
    <DataChangeReasonCode description="Transfer">DCR001</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

This transaction reflects the data that will be provided to the Network Operator on completion of a Transfer in both West Australia and South Australia:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <RoleAssignments>
      <RoleAssignment>
        <Party>AGNUSER-01</Party>
        <Role>USER</Role>
      </RoleAssignment>
    </RoleAssignments>
    <LastModifiedDateTime>2003-11-25T00:10:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>AGNNWOP-01</LastModifiedBy>
    <DataChangeReasonCode description="Transfer">DCR001</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

On Completion of a Transfer (Move-in):

This transaction reflects the data that will be provided to the Current User on completion of a Transfer (Move-in) in West Australia.:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <TransmissionZone>l8</TransmissionZone>
      <HeatingValueZone>l21</HeatingValueZone>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2003-09-01</MIRNCommissionedDate>
      <SmallUseCustomer>>false</SmallUseCustomer>
    </MasterData>
    <RoleAssignments>
      <RoleAssignment>
        <Party>BG ROLR-01</Party>
        <Role>ROLR</Role>
      </RoleAssignment>
      <RoleAssignment>
        <Party>AGNNWOP-01</Party>
        <Role>NO</Role>
      </RoleAssignment>
      <RoleAssignment>
        <Party>AGNUSER-01</Party>
        <Role>USER</Role>
      </RoleAssignment>
    </RoleAssignments>
    <MeterData>
      <SupplyPointCode>Basic</SupplyPointCode>
    </MeterData>
    <LastModifiedDateTime>2003-11-25T10:00:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>AGNNWOP-01</LastModifiedBy>
    <DataChangeReasonCode description="Transfer">DCR001</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

This transaction reflects the data that will be provided to the Current User on completion of a Transfer (Move-in) in South Australia

```
<NMIStandingDataUpdateNotification version="r9">
  <SingleNMIStandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <BaseLoad>8880871.8</BaseLoad>
      <TemperatureSensitivityFactor>7770871.77</TemperatureSensitivityFactor>
      <TransmissionZone>18</TransmissionZone>
      <HeatingValueZone>121</HeatingValueZone>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2003-09-01</MIRNCommissionedDate>
      <SmallUseCustomer>false</SmallUseCustomer>
    </MasterData>
    <RoleAssignments>
      <RoleAssignment>
        <Party>BG_ROLR-01</Party>
        <Role>ROLR</Role>
      </RoleAssignment>
      <RoleAssignment>
        <Party>AGNNWOP-01</Party>
        <Role>NO</Role>
      </RoleAssignment>
      <RoleAssignment>
        <Party>AGNUSER-01</Party>
        <Role>USER</Role>
      </RoleAssignment>
    </RoleAssignments>
    <MeterData>
      <SupplyPointCode>Basic</SupplyPointCode>
    </MeterData>
    <LastModifiedDateTime>2003-11-25T06:30:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>AGNNWOP-01</LastModifiedBy>
    <DataChangeReasonCode description="Transfer">DCR001</DataChangeReasonCode>
  </SingleNMIStandingData>
</NMIStandingDataUpdateNotification>
```

This example reflects the data that will be provided to the Network Operator on completion of a Transfer (Move-in) in both West Australia and South Australia:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <RoleAssignments>
      <RoleAssignment>
        <Party>AGNUSER-01</Party>
        <Role>USER</Role>
      </RoleAssignment>
    </RoleAssignments>
    <LastModifiedDateTime>2003-11-25T10:00:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>AGNNWOP-01</LastModifiedBy>
    <DataChangeReasonCode description="Transfer">DCR001</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

On completion of an Error Correction For Erroneous Transfer:

This example reflects the data that will be provided to the current User on completion of a Correction of Transfer in West Australia::

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <TransmissionZone>18</TransmissionZone>
      <HeatingValueZone>121</HeatingValueZone>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2003-09-01</MIRNCommissionedDate>
      <SmallUseCustomer>false</SmallUseCustomer>
    </MasterData>
    <RoleAssignments>
```

```
<RoleAssignment>
  <Party>BG_ROLR-01</Party>
  <Role>ROLR</Role>
</RoleAssignment>
<RoleAssignment>
  <Party>AGNNWOP-01</Party>
  <Role>NO</Role>
</RoleAssignment>
<RoleAssignment>
  <Party>AGNUSER-01</Party>
  <Role>USER</Role>
</RoleAssignment>
</RoleAssignments>
<MeterData>
  <SupplyPointCode>Basic</SupplyPointCode>
</MeterData>
<LastModifiedDateTime>2003-11-25T00:10:00.000+10:00</LastModifiedDateTime>
<LastModifiedBy>AGNNWOP-01</LastModifiedBy>
<DataChangeReasonCode description="Error correction (Transfer)">DCR002</DataChangeReasonCode>
</SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

This example reflects the data that will be provided to the current User on completion of a Correction of Transfer in South Australia

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <BaseLoad>8880871.8</BaseLoad>
      <TemperatureSensitivityFactor>7770871.77</TemperatureSensitivityFactor>
      <TransmissionZone>18</TransmissionZone>
      <HeatingValueZone>121</HeatingValueZone>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2003-09-01</MIRNCommissionedDate>
      <SmallUseCustomer>false</SmallUseCustomer>
    </MasterData>
    <RoleAssignments>
      <RoleAssignment>
        <Party>BG_ROLR-01</Party>
```

```
<Role>ROLR</Role>
</RoleAssignment>
<RoleAssignment>
  <Party>AGNNWOP-01</Party>
  <Role>NO</Role>
</RoleAssignment>
<RoleAssignment>
  <Party>AGNUSER-01</Party>
  <Role>USER</Role>
</RoleAssignment>
</RoleAssignments>
<MeterData>
  <SupplyPointCode>Basic</SupplyPointCode>
</MeterData>
<LastModifiedDateTime>2003-11-25T00:06:30.000+10:00</LastModifiedDateTime>
<LastModifiedBy>AGNNWOP-01</LastModifiedBy>
<DataChangeReasonCode description="Error correction (Transfer)">DCR002</DataChangeReasonCode>
</SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

This example reflects the data that will be provided to the Network Operator on completion of a Correction of Transfer in both West Australia and South Australia:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <RoleAssignments>
      <RoleAssignment>
        <Party>AGNUSER-01</Party>
        <Role>USER</Role>
      </RoleAssignment>
    </RoleAssignments>
    <LastModifiedDateTime>2003-11-25T10:00:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>AGNNWOP-01</LastModifiedBy>
    <DataChangeReasonCode description="Error correction (Transfer)">DCR002</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

On completion of a Disconnection:

This example reflects the data that will be provided to the Current User AND Network Operator on completion of a Correction of Transfer in both West Australia and South Australia:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <MIRNStatus>Decommissioned</MIRNStatus>
      <MIRNCommissionedDate>2001-01-01</MIRNCommissionedDate>
    </MasterData>
    <LastModifiedDateTime>2003-01-02T10:00:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>AGNNWOP-01</LastModifiedBy>
    <DataChangeReasonCode description="Change to MIRN status">DCR005</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

On completion of a Reconnection:

This example reflects the data that will be provided to the Current User AND Network Operator on completion of a Reconnection in both West Australia and South Australia:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="7">9876543210</NMI>
    <MasterData>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2001-01-01</MIRNCommissionedDate>
    </MasterData>
    <LastModifiedDateTime>2003-01-03T10:00:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>TXU_NWO</LastModifiedBy>
    <DataChangeReasonCode description="Change to MIRN status">DCR005</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

```
</SingleNMISTandingData>  
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

On completion of the Permanent removal of a MIRN:

This example reflects the data that will be provided to the Current User AND Network Operator on completion of the Permanent Removal of a MIRN in both West Australia and South Australia:

```
<NMISTandingDataUpdateNotification version="r9">  
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">  
    <NMI checksum="2">5600000278</NMI>  
    <MasterData>  
      <MIRNStatus>Deregistered</MIRNStatus>  
      <MIRNCommissionedDate>2001-01-01</MIRNCommissionedDate>  
    </MasterData>  
    <LastModifiedDateTime>2003-08-23T00:10:00.000+10:00</LastModifiedDateTime>  
    <LastModifiedBy>TXU_NWO</LastModifiedBy>  
    <DataChangeReasonCode description="MIRN permanently removed">DCR006</DataChangeReasonCode>  
  </SingleNMISTandingData>  
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

On completion of a New Connection:

This example reflects the data that will be provided to the Current User on completion of the New connection of a MIRN in West Australia:

```
<NMISTandingDataUpdateNotification version="r9">  
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">  
    <NMI checksum="2">5600000278</NMI>  
    <MasterData>  
      <TransmissionZone>01</TransmissionZone>
```

```
<HeatingValueZone>581</HeatingValueZone>
<MIRNStatus>Commissioned</MIRNStatus>
<MIRNCommissionedDate>2003-08-23</MIRNCommissionedDate>
<SmallUseCustomer>true</SmallUseCustomer>
</MasterData>
<RoleAssignments>
  <RoleAssignment>
    <Party>TXU_USER</Party>
    <Role>USER</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>ALINTAGAS</Party>
    <Role>ROLR</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>TXU_NWO</Party>
    <Role>NO</Role>
  </RoleAssignment>
</RoleAssignments>
<MeterData>
  <SupplyPointCode>Basic</SupplyPointCode>
</MeterData>
<LastModifiedDateTime>2003-08-23T10:00:00.000+10:00</LastModifiedDateTime>
<LastModifiedBy>ALINTA_NWO</LastModifiedBy>
<DataChangeReasonCode description="New Connection">DCR007</DataChangeReasonCode>
</SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

This example reflects the data that will be provided to the Current User on completion of the New connection of a MIRN in South Australia:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <BaseLoad>12.6</BaseLoad>
      <TemperatureSensitivityFactor>857.25</TemperatureSensitivityFactor>
      <TransmissionZone>01</TransmissionZone>
```



```
<HeatingValueZone>581</HeatingValueZone>
<MIRNStatus>Commissioned</MIRNStatus>
<MIRNCommissionedDate>2003-08-23</MIRNCommissionedDate>
<SmallUseCustomer>false</SmallUseCustomer>
</MasterData>
<RoleAssignments>
  <RoleAssignment>
    <Party>TXU_USER</Party>
    <Role>USER</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>ALINTAGAS</Party>
    <Role>ROLR</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>TXU_NWO</Party>
    <Role>NO</Role>
  </RoleAssignment>
</RoleAssignments>
<MeterData>
  <SupplyPointCode>Interval</SupplyPointCode>
</MeterData>
<LastModifiedDateTime>2003-08-23T6:30:00.000+10:00</LastModifiedDateTime>
<LastModifiedBy>TXU_NWO</LastModifiedBy>
<DataChangeReasonCode description="New Connection">DCR007</DataChangeReasonCode>
</SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

This example reflects the data that will be provided to the Network Operator on completion of the New Connection of a MIRN in West Australia and South Australia:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="2">5600000278</NMI>
    <MasterData>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2003-08-23</MIRNCommissionedDate>
    </MasterData>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

```
<LastModifiedDateTime>2003-08-23T10:00:00.000+10:00</LastModifiedDateTime>
<LastModifiedBy>TXU_NWO</LastModifiedBy>
<DataChangeReasonCode description="New Connection">DCR007</DataChangeReasonCode>
</SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

On completion of a Data Change Notice:

This example reflects the data that will be provided to the Network Operator and Current User after a Data Change Notice initiates a change to Market Operator standing data in both West Australia and South Australia.

Changes to Gas Zone and Base Load:

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="7">9876543210</NMI>
    <MasterData>
      <BaseLoad>12.2</BaseLoad>
      <TransmissionZone>21</TransmissionZone>
      <HeatingValueZone>234</HeatingValueZone>
      <MIRNCommissionedDate>2001-01-01</MIRNCommissionedDate>
    </MasterData>
    <LastModifiedDateTime>2003-08-23T10:00:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>TXU_NWO</LastModifiedBy>
    <DataChangeReasonCode description="Change to standing data">DCR004</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

Changes to Heating Rate and Meter Type

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="7">9876543210</NMI>
    <MasterData>
      <TemperatureSensitivityFactor>652.32</TemperatureSensitivityFactor>
      <MIRNCommissionedDate>2001-01-01</MIRNCommissionedDate>
    </MasterData>
    <MeterData>
      <SupplyPointCode>Basic</SupplyPointCode>
    </MeterData>
    <LastModifiedDateTime>2003-08-23T10:00:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>ALINTA_NWO</LastModifiedBy>
    <DataChangeReasonCode description="Change to standing data">DCR004</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

On completion of an Error Correction of the Permanent Removal of a MIRN :

This example reflects the data that will be provided to the Network Operator and Current User after a Error Correction has completed to undo the permanent removal of a MIRN in both West Australia and south Australia.

```
<NMISTandingDataUpdateNotification version="r9">
  <SingleNMISTandingData xsi:type="ase:GasStandingDataUpdate" version="r13">
    <NMI checksum="1">0123456789</NMI>
    <MasterData>
      <MIRNStatus>Commissioned</MIRNStatus>
      <MIRNCommissionedDate>2001-01-01</MIRNCommissionedDate>
    </MasterData>
    <LastModifiedDateTime>2003-08-23T10:00:00.000+10:00</LastModifiedDateTime>
    <LastModifiedBy>TXU_NWO</LastModifiedBy>
    <DataChangeReasonCode description="Error correction (MIRN permanently
removed)">DCR003</DataChangeReasonCode>
  </SingleNMISTandingData>
</NMISTandingDataUpdateNotification>
```

Note that <LastModifiedDateTime> would be 2003-11-25T00:06:30.000+10:00 in South Australia (assuming no DST).

8.3 New Connection

New connection is initiated by the network operator, when the network operator has commissioned a delivery point the network operator notifies Market Operator and then Market Operator distributes standing data to all interested participants.

8.3.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
<i>GasMeterNotification/MeterFix</i>		COM-DP	Network Operator	AEMO Registry AE MO Registry	AseXML	SORD	65	3.1.3

8.3.2 Code Summary

This table is a complete list of those codes used within the *New Connection* process to uniquely identify each particular flow.

Identifier	Data Flow Name
COM-DP	Commissioning of Delivery Point

8.3.3 GasMeterNotification/MeterFix Transaction

8.3.3.1 Physical Transaction

NOTE: A RoleAssignment will be provided for each of the, Network Operator and Current User.

NOTE: The gas zone will be encoded into the HeatingValuezone(string(3) – subnetwork and heating value zone) and TransmissionZone(integer(2) – network operator and licence area) (as per RMR appendix 1)

GasMeterNotification/MeterFix

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
NMI	String(10)	Mandatory	The MIRN	1..1	MeterFix/NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	The MIRN Checksum	Use="optional"	@checksum	xsd:integerminInclusive="0" maxInclusive="9"
MIRNStatus	String(Enum) "Registered" = a service inlet has been installed at the delivery point "Commissioned"=Commissioned and not decommissioned or permanently removed (including after the delivery point has been reconnected) "Decommissioned"= disconnected (temporary) "Deregistered"= Permanently Removed	Mandatory	Must be "Commissioned"	0..1	MasterData/MIRNStatus	An enumerated list of xsd:string values: "Registered", "Commissioned", "Decommissioned", "Deregistered"
SupplyPointCode	String(Enum) "Basic"=A basic meter "Interval"=An interval meter	Mandatory	This provides the information about the type of meter installed at the delivery point.	0..1	MeterData/SupplyPointCode	An enumerated list of xsd:string values: "Basic", "Interval", "Transmission"
AnticipatedAnnualConsumption	Integer(13)	Optional / Mandatory for basic MIRNS in WA	This provides the annual volume of gas anticipated to be withdrawn from the delivery point.	0..1	MasterData/AnticipatedAnnualConsumption	xsd:integer totalDig="13"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
BaseLoad	Decimal	Optional / Mandatory for basic MIRNS in SA	This contains the non sensitive base load for the delivery point.	0..1	MasterData/ BaseLoad	xsd:decimal totalDig="9" fracDig="1"
TemperatureSensitivityFactor	Decimal	Optional / Mandatory for basic MIRNS in SA	This contains the temperature sensitivity heating rate for the delivery point.	0..1	GasStandingDataUpdate/ MasterData	xsd:decimal totalDig="9" fracDig="2"
DateServiceOrderCompleted	Date (10) ccyy-mm-dd	Mandatory	Provides the date on which the MIRN Status was changed, that is when the MIRN was commissioned.	1..1	DateServiceOrderCompl eted	xsd:date
Party	String(10)	Mandatory	This is the GBO of the party with the associated Role. We need to provide a RoleAssignment for each of the current user network operator. This will allow the following {party,Role} pairs to be used: Current user: {“USER”,<GBO ID>} Network Operator: {“NO”,<GBO ID>}	0..infinity	MeterFix/RoleAssignmen ts/RoleAssignment/Party	xsd:string
Role	String(4) “USER” – User “NO” – Network operator	Mandatory	This is the Role of the associated Party. We need to provide a RoleAssignment for each of the current user and network operator. This will allow the following {party,Role} pairs to be used: Current user: {“USER”,<GBO ID>} Network Operator: {“NO”,<GBO ID>}	0..infinity	MeterFix/RoleAssignmen ts/RoleAssignment/Role	xsd:string maxLength="4"

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
TransmissionZone	Integer(2)	Mandatory	This will contain the encoding of network operator and licence areas (Identified as A and B and defined in RMR appendix 1). This forms part of the gas zone code.	0..1	MasterData/MasterData/TransmissionZone	xsd:integer totalDig="2"
HeatingValueZone	String(3)	Mandatory	This will contain the encoding of sub-network and heating value zone (Identified as CC and D and defined in RMR appendix 1). This forms part of the gas zone code.	0..1	MasterData/HeatingValueZone	xsd:string maxLen="3"

8.3.3.2 Data flow Definition: Commissioning of Delivery Point (COM-DP)

This indicates that a network operator has commissioned a delivery point. This MIRN has become commissioned for the first time and gas is able to flow at the delivery point.

8.3.3.2.1 AseXML Example Transaction

In South Australia:

```
<GasMeterNotification version="r9">
  <MeterFix version="r13">
    <NMI checksum="2">5000000012</NMI>
    <MasterData>
      <BaseLoad>88.8</BaseLoad>
      <TemperatureSensitivityFactor>99.99</TemperatureSensitivityFactor>
      <TransmissionZone>11</TransmissionZone>
      <HeatingValueZone>011</HeatingValueZone>
      <MIRNStatus>Commissioned</MIRNStatus>
    </MasterData>
  </MeterFix>
</GasMeterNotification>
```



```
<RoleAssignments>
  <RoleAssignment>
    <Party>ZRIGIN</Party>
    <Role>USER</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>ZAROLR</Party>
    <Role>ROLR</Role>
  </RoleAssignment>
  <RoleAssignment>
    <Party>ZNVSA</Party>
    <Role>NO</Role>
  </RoleAssignment>
</RoleAssignments>
<MeterData>
  <SupplyPointCode>Basic</SupplyPointCode>
</MeterData>
</MeterFix>
<DateServiceOrderCompleted>2004-04-01</DateServiceOrderCompleted>
</GasMeterNotification>
```

In Western Australia:

```
<GasMeterNotification version="r9">
  <MeterFix version="r13">
    <NMI checksum="7">5000000001</NMI>
    <MasterData>
      <TransmissionZone>11</TransmissionZone>
      <HeatingValueZone>011</HeatingValueZone>
      <MIRNStatus>Commissioned</MIRNStatus>
      <AnticipatedAnnualConsumption>901</AnticipatedAnnualConsumption>
    </MasterData>
    <RoleAssignments>
      <RoleAssignment>
        <Party>ZLS</Party>
        <Role>USER</Role>
      </RoleAssignment>
    </RoleAssignments>
  </MeterFix>
</GasMeterNotification>
```

```
<RoleAssignment>
  <Party>ZLN</Party>
  <Role>NO</Role>
</RoleAssignment>
</RoleAssignments>
<MeterData>
  <SupplyPointCode>Basic</SupplyPointCode>
</MeterData>
</MeterFix>
<DateServiceOrderCompleted>2004-04-01</DateServiceOrderCompleted>
</GasMeterNotification>
```

8.3.3.2.2 Event Codes

Event Code Number
201,202,3011,3013,3018,3200,3400,3402,3407,3410,3411,3413,3662

Note: In all cases the severity of each event will be “Error”.

8.4 Disconnection

8.4.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
<i>GasMeterNotification/MIRNStatus Update</i>		DIS-CON	Network Operator	The <i>Registry</i>	aseXML	SORD	107 111	3.5.3 3.5.7
<i>MeterDataMissingNotification</i>		DIS-MR-ALT	The <i>Registry</i>	Network Operator	aseXML	MDMT	115	3.5.11

8.4.2 Code Summary

This table is a complete list of those codes used within the *Disconnection* process to uniquely identify each particular flow.

Identifier	Data Flow Name
DIS-CON	Disconnection Confirmation Notice
DIS-MR-ALT	No Disconnection meter reading alert

8.4.3 GasMeterNotification/MIRNStatusUpdate Transaction

8.4.3.1 Physical Transaction

NOTE: The DateServiceOrderCompleted will always be the date that the MIRN status changed.

GasMeterNotification/MIRNStatusUpdate

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
NMI	String(10)	Mandatory	The MIRN	1..1	NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	The MIRN Checksum	Use="optional"	@checksum	xsd:integer minInclusive="0" maxInclusive="9"
MIRNStatus	String(Enum) "Registered" = a service inlet has been installed at the delivery point "Commissioned"=Commissioned and not decommissioned or permanently removed (including after the delivery point has been reconnected) "Decommissioned"= disconnected (temporary) "Deregistered"= Permanently Removed	Mandatory	The MIRN status must be "Decommissioned"	0..1	MasterData/MIRNStatus	An enumerated list of xsd:string values: "Registered", "Commissioned", "Decommissioned", "Deregistered"
DateServiceOrderCompleted	Date (10) ccyy-mm-dd	Mandatory	Provides the date on which the MIRN Status was changed, that is when the MIRN was disconnected.	1..1	GasMeterNotification	xsd:date

8.4.3.2 Data flow Definition: Disconnection Confirmation Notice (DIS-CON)

This flow identifies that a MIRN has been decommissioned after a disconnection. An actual value is also required, but will arrive as part of a separate data flow (BSCMR 'Basic Meter Read Data' or INTMR 'Interval Meter Read Data').

8.4.3.2.1 AseXML Example Transaction

```
<GasMeterNotification version="r9">
  <MIRNStatusUpdate version="r13">
    <NMI checksum="1">5000000003</NMI>
    <MasterData>
      <MIRNStatus>Decommissioned</MIRNStatus>
    </MasterData>
  </MIRNStatusUpdate>
  <DateServiceOrderCompleted>2004-06-15</DateServiceOrderCompleted>
</GasMeterNotification>
```

8.4.3.2.2 Event Codes

Event Code Number
202,3013,3018,3200,3400,3410,3411,3662

Note: In all cases the severity of each event will be “Error”.

8.4.4 MeterDataMissingNotification Transaction

8.4.4.1 *Physical Transaction*

MeterDataMissingNotification

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
RecordCount	Integer(10)	Mandatory	A count of the number of records included in the CSV payload.	1..1	CSVMissingMeterData/RecordCount	xsd:integer totalDig="10"
CSVMissingMeterData	String(240)	Mandatory		1..1	CSVMissingMeterData	xsd:string

The following describes the CSV contents of the data element *CSVMissingMeterData*.

Heading	Usage	Usage/ Comments
NMI	Mandatory	The MIRN for which the energy data is missing
NMI_Checksum	Mandatory	The MIRN checksum
Last_Read_Date	Mandatory	This is the calendar day before the date on which meter readings are required to complete a status change for a MIRN. The Network Operator is to supply all energy data calculated since this date. If no date is supplied then the network operator is to supply energy data calculated since commencement of the Retail Market.

8.4.4.2 *Data flow Definition: No Disconnection meter reading alert (DIS-MR-ALRT)*

This is the means to notify the network operator that valid meter data has not been received to support the disconnection confirmation notice within 2 business days.

8.4.4.2.1 AseXML Example Transaction

```
<MeterDataMissingNotification version="r9">
  <CSVMissingMeterData>
    <RecordCount>1</RecordCount>
    <CSVData>NMI,NMI_Checksum,Last_Read_Date
      5000000007,2,2004-02-09</CSVData>
  </CSVMissingMeterData>
</MeterDataMissingNotification>
```

8.5 Reconnection

8.5.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
<i>GasMeterNotification/MIRNStatus Update</i>		REC-CON	Network Operator	The <i>Registry</i>	AseXML	SORD	119	3.5.15
<i>MeterDataMissingNotification</i>		REC-MR-ALT	The <i>Registry</i>	Network Operator	AseXML	MDMT	123	3.5.19

8.5.2 Code Summary

This table is a complete list of those codes used within the *Reconnection* process to uniquely identify each particular flow.

Identifier	Data Flow Name
REC-CON	Reconnection Confirmation Notice
REC-MR-ALT	No Reconnection meter reading alert

8.5.3 GasMeterNotification/MIRNStatusUpdate Transaction

8.5.3.1 Physical Transaction

NOTE: The Network Operator GBO ID will be available in the message header.

NOTE: The DateServiceOrderCompleted will always be the date that the MIRN status changed.

GasMeterNotification/MIRNStatusUpdate

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
NMI	String(10)	Mandatory	The MIRN	1..1	NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	The MIRN Checksum	Use="optional"	@checksum	xsd:integer minInclusive="0" maxInclusive="9"
MIRNStatus	String(Enum) "Registered" = a service inlet has been installed at the delivery point "Commissioned"=Commissioned and not decommissioned or permanently removed (including after the delivery point has been reconnected) "Decommissioned"= disconnected (temporary) "Deregistered"= Permanently Removed	Mandatory	The MIRN status must be "Commissioned"	0..1	MasterData/MIRNStatus	An enumerated list of xsd:string values: "Registered", "Commissioned", "Decommissioned", "Deregistered"
DateServiceOrderCompleted	Date (10) ccyy-mm-dd	Mandatory	Provides the date on which the MIRN Status was changed, that is when the MIRN was disconnected.	1..1	DateServiceRequestCompleted	xsd:date

8.5.3.2 *Data flow Definition: Reconnection Confirmation Notice (REC-CON)*

This flow is the confirmation from the network operator notifying ~~the Market Operator~~ [AEMO](#) that a MIRN has been reconnected (and so is Commissioned) and providing an actual value

8.5.3.2.1 AseXML Example Transaction

```
<GasMeterNotification version="r9">
  <MIRNStatusUpdate version="r13">
    <NMI checksum="1">5000000003</NMI>
    <MasterData>
      <MIRNStatus>Commissioned</MIRNStatus>
    </MasterData>
  </MIRNStatusUpdate>
  <DateServiceOrderCompleted>2004-07-01</DateServiceOrderCompleted>
</GasMeterNotification>
```

8.5.3.2.2 Event Codes

Event Code Number
202,3013,3018,3400,3407,3410,3411,3662

Note: In all cases the severity of each event will be “Error”.

8.5.4 MeterDataMissingNotification Transaction

8.5.4.1 *Physical Transaction*

The physical flow for this data interface is captured under section 8.4.4.1

8.5.4.2 *Data flow Definition: No Reconnection meter reading alert (REC-MR-ALRT)*

This is the means to notify the network operator that valid meter data has not been received to action the reconnection within two business days.

8.5.4.2.1 AseXML Example Transaction

```
<MeterDataMissingNotification version="r9">
  <CSVMissingMeterData>
    <RecordCount>1</RecordCount>
    <CSVData>NMI,NMI Checksum,Last Read_Date
      5000000007,2,2004-02-09</CSVData>
  </CSVMissingMeterData>
</MeterDataMissingNotification>
```

8.6 Decommissioning Delivery Points

8.6.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
<i>GasMeterNotification/MIRNStatus Update</i>		PR-CON	Network Operator	The <i>Registry</i>	AseXML	SORD	127	3.6.3
<i>MeterDataMissingNotification</i>		PR-MR-ALT	The <i>Registry</i>	Network Operator	AseXML	MDMT	131	3.6.7

8.6.2 Code Summary

This table is a complete list of those codes used within the *Decommission* process to uniquely identify each particular flow.

Identifier	Data Flow Name
PR-CON	Permanent Removal Confirmation Notice
PR-MR-ALT	No Permanent Removal Meter Reading Alert

8.6.3 GasMeterNotification/MIRNStatusUpdate Transaction

8.6.3.1 Physical Transaction

NOTE: The Network Operator GBO ID will be available in the message header.

NOTE: The DateServiceOrderCompleted will always be the date that the MIRN status changed.

GasMeterNotification/MIRNStatusUpdate:

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
NMI	String(10)	Mandatory	The MIRN	1..1	NMI	xsd:string length="10"
Checksum	Integer(1)	Mandatory	The MIRN Checksum	Use="optional"	@checksum	xsd:integer" minInclusive="0"maxInclusive="9"
MIRNStatus	String(Enum) "Registered" = a service inlet has been installed at the delivery point "Commissioned"=Commissioned and not decommissioned or permanently removed (including after the delivery point has been reconnected) "Decommissioned"= disconnected (temporary) "Deregistered"= Permanently Removed	Mandatory	The MIRN status must be "Deregistered"	0..1	MasterData/MIRNStatus	An enumerated list of xsd:string values: "Registered", "Commissioned", "Decommissioned", "Deregistered"
DateServiceOrderCompleted	Date (10) ccyy-mm-dd	Mandatory	Provides the date on which the MIRN Status was changed, that is when the MIRN was disconnected.	1..1	DateServiceRequestCompleted	xsd:date

8.6.3.2 Data flow Definition: Permanent Removal Confirmation Notice (PR-CON)

This flow is notification from the network operator that a MIRN has been deregistered.

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ds

8.6.3.2.1 AseXML Example Transaction

```
<GasMeterNotification version="r9">
<MIRNStatusUpdate version="r13">
  <NMI checksum="3">5000000002</NMI>
  <MasterData>
    <MIRNStatus>Deregistered</MIRNStatus>
  </MasterData>
</MIRNStatusUpdate>
<DateServiceOrderCompleted>2004-07-01</DateServiceOrderCompleted>
</GasMeterNotification>
```

8.6.3.2.2 Event Codes

Event Code Number
202,3013,3018,3400,3407,3410,3411

Note: In all cases the severity of each event will be “Error”.

8.6.4 MeterDataMissingNotification Transaction

8.6.4.1 *Physical Transaction*

The physical flow for this data interface is captured under section 8.4.4.1

8.6.4.2 *Data flow Definition: No Permanent Removal Meter Reading Alert (PR-MR-ALRT)*

This is the means to notify the network operator that valid meter data has not been received to action the decommission within the required period.

8.6.4.2.1 AseXML Example Transaction

```
<MeterDataMissingNotification version="r9">  
  <CSVMissingMeterData>  
    <RecordCount>1</RecordCount>  
    <CSVData>NMI,NMI Checksum,Last Read_Date  
      5000000007,2,2004-02-09</CSVData>  
  </CSVMissingMeterData>  
</MeterDataMissingNotification>
```

8.7 Electronic Files

Transactions have been classified in terms of the definitions in the BS section 1.8

8.7.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Electronic File	N/A	PROV-BSD	The Registry	Network Operator/ Current User	Bulk Electronic File	23, 31(2)	2.1.8, 2.2.8(3)
Electronic File	N/A	PROV-HSD	The Registry	Network Operator/ Current User	Bulk Electronic File	57	2.3.4
Electronic File	N/A	PROV-ROLR-TFR	The Registry	Network Operator	Bulk Electronic File	104	3.4.1
Electronic File	N/A	PROV-ROLR-CNCL-TX	The Registry	Network Operator/ Incoming User/ Previous User	Bulk Electronic File	104	3.4.1
Electronic File	N/A	BLHR	Network Operator	The Registry	Bulk Electronic File	31	2.2.8

8.7.2 Code Summary

This table is a complete list of those codes used to uniquely identify each ‘*electronic file*’ flow.

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Identifier	Data Flow Name
PROV-BSD	Provision of bulk Market Operator standing data
PROV-HSD	Provision of historical Market Operator standing data
MRDS-RPT	Provision of meter registration data – Settlement report
MRD-RPT	Provision of meter registration data
MIRN-UPD-RPT	Provision of Customer/MIRN Status
PROV-ROLR-TFR	Provision of MIRNs transferred to ROLR
PROV-ROLR-CNCL-TX	Provision of transactions cancelled during a ROLR event
BLHR	Base Load and Heating Rate

8.7.3 Provision of bulk Market Operator standing data

8.7.3.1 *Data Flow Definition: Provision of bulk Market Operator standing data (PROV-BSD)*

This is a mechanism for providing the network operator with the standing data for those delivery points that are within the network operators Gas Distribution System (GDS).

The same mechanism shall be used to distribute delivery point standing data to a user, where that user is the current user for those delivery points.

Note: As defined in the BS, the PROV-BSD flow will be used to provide the standing data information after a Base Load and Heating Rate update is provided via the BLHR dataflow.

8.7.3.2 *Physical Mapping*

.

Physical Name	Optionality
MIRN	1
MIRN_CHECKSUM	1
MIRN_STATUS	1
MIRN_COMMISSIONED_DATE	1
USER_GBO_ID	1
CU_EFFECTIVE_DATE	1
ROLR_ID	1
NETOP_GBO_ID	1
METER_TYPE	1
TRANSMISSION_ZONE	1
HV_ZONE	1

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Physical Name	Optionality
SMALL_CUSTOMER	1
NON_TEMP_SENSITIVE_BASELOAD	1
TEMP_SENSITIVE_HEATING_RATE	1
LAST_MODIFICATION_DATE	1
PARTICIPANT_LAST_CHANGE	1
DATA_GENERATION_DATE	1

Notes:

- MORN Change Date identifies the date at which the MORN status took the provided status.
- TRANSMISSION_ZONE contains the encoding of network operator and licence areas (Identified as A and B and defined in RMR appendix 1). This forms part of the gas zone code.
- HV_ZONE contains the encoding of sub-network and heating value zone (Identified as CC and D and defined in RMR appendix 1). This forms part of the gas zone code.
- CU_EFFECTIVE_DATE identifies the date on which the current user became the current user for the MORN.
- The PROV-BSD flow is sorted by MORN in ascending order.

8.7.3.3 Example

MORN,MORN_CHECKSUM,MORN_STATUS,MORN_COMMISSIONED_DATE,USER_GBO_ID,CU_EFFECTIVE_DATE,ROLR_ID,NETOP_GBO_ID,METER_TYPE,TRANSMISSION_ZONE,HV_ZONE,SMALL_CUSTOMER,NON_TEMP_SENSITIVE_BASELOAD,TEMP_SENSITIVE_HEATING_RATE,LAST_MODIFICATION_DATE,PARTICIPANT_LAST_CHANGE, DATA_GENERATION_DATE
 5500003074,5,Commissioned,2003-10-01,ALINTAGAS,2003-10-01,ALINTAGAS,ALINTANET,B,12,16G,Y,99999999.9,99999999.99,2003-09-20,ALINTAGAS, 2003-11-01
 5600008129,0, Decommissioned,2003-10-20,ALINTAGAS,2003-10-01,ALINTAGAS,ALINTANET,B,12,16G,Y,99999999.9,99999999.99,2003-09-24,ALINTAGAS, 2003-11-01
 5600023478,8, Commissioned,2003-09-23,ALINTAGAS,2003-10-01,ALINTAGAS,ALINTANET,B,12,16G,Y,99999999.9,99999999.99,2003-09-20,ALINTAGAS, 2003-11-01
 5600079467,4, Commissioned,2003-10-23,ALINTAGAS,2003-10-01,ALINTAGAS,ALINTANET,B,12,16G,Y,99999999.9,99999999.99,2003-09-

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20,ALINTAGAS, 2003-11-01
5600102781,3, Deregistered,2003-10-30,ALINTAGAS,2003-10-01,ALINTAGAS,ALINTANET,B,12,16G,Y,99999999.9,999999999.99,2003-09-
20,ALINTAGAS, 2003-11-01

8.7.4 Provision of historical Market Operator standing data

8.7.4.1 *Data Flow Definition: Provision of historical Market Operator standing data (PROV-HSD)*

This allow for the provisioning of historical Market Operator standing data

8.7.4.2 *Physical Mapping*

Physical Name	Optionality
MIRN	1
MIRN_CHECKSUM	1
MIRN_STATUS	1
MIRN_COMMISSIONED_DATE	1
START_DATE	1
END_DATE	1
USER_GBO_ID	1
ROLR_ID	1
NETOP_GBO_ID	1
METER_TYPE	1
TRANSMISSION_ZONE	1
HV_ZONE	1
SMALL_CUSTOMER	1
NON_TEMP_SENSITIVE_BASELOAD	1
TEMP_SENSITIVE_HEATING_RATE	1
LAST_MODIFICATION_DATE	1
PARTICIPANT_LAST_CHANGE	1
RECORD_EFFECTIVE_FROM_DATE	1

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Physical Name	Optionality
DATA_GENERATION_DATE	1

Notes:

- MIRN Change Date identifies the date at which the MIRN status took the provided status.
- TRANSMISSION_ZONE contains the encoding of network operator and licence areas (Identified as A and B and defined in RMR appendix 1). This forms part of the gas zone code.
- HV_ZONE contains the encoding of sub-network and heating value zone (Identified as CC and D and defined in RMR appendix 1). This forms part of the gas zone code

8.7.4.3 Example

MIRN,MIRN_CHECKSUM,MIRN_STATUS,MIRN_COMMISSIONED_DATE,START_DATE,END_DATE,,USER_GBO_ID,ROLR_ID,NETOP_GBO_ID,METER_TYPE,TRANSMISSION_ZONE,HV_ZONE,SMALL_CUSTOMER,NON_TEMP_SENSITIVE_BASELOAD,TEMP_SENSITIVE_HEATING_RATE, LAST_MODIFICATION_DATE,PARTICIPANT_LAST_CHANGE,RECORD_EFFECTIVE_FROM_DATE,DATA_GENERATION_DATE
5600079467,4,Commissioned,2003-09-05,2003-09-10,2003-09-25,ALINTAGAS,ALINTAGAS,ALINTANET,B,11,06P,Y,999999999.9,999999999.99,2003-09-06,ALINTANET,2003-09-10,2004-01-24
5600079467,4,Decommissioned,2003-09-05,2003-09-10,2003-09-25,ALINTAGAS,ALINTAGAS,ALINTANET,B,11,06P,Y,999999999.9,999999999.99,2003-11-05,ALINTANET,2003-09-10,2004-01-24
5600079467,4,Deregistered,2003-09-05,2003-09-10,2003-09-25,ALINTAGAS,ALINTAGAS,ALINTANET,B,11,06P,Y,999999999.9,999999999.99,2003-11-26,ALINTANET,2003-09-25,2004-01-24

8.7.5 Metering Registration Data (Settlements Report) (MRDS-RPT)

Publish metering registration details in a static, participant specific, CSV file.

When Issued: Issue of Settlement, inclusive of revisions (Monthly)

8.7.5.1 *Report definition*

The report is generated for one month, corresponding to the settlement period inclusive of revisions, and includes only the details of MIRNs where the participant is/was the FRO for those MIRNs during the settlement period

8.7.5.2 *Physical Mapping*

The data for this flow must be provided in as an automated electronic file.

Physical Name	Optionality
MIRN	1
GAS_DAY	1
GATEPOINT_ID	1
HV_ZONE	1
SUB_NETWORK_ID	1
METER_TYPE	1
METER_NUMBER	1
SMALL_CUSTOMER	1
TRANSMISSION_ZONE	1
MIRN_COMMISSIONED_DATE	1
USER_GBO_ID	1
NETOP_GBO_ID	1
ROLR_ID	1
PIPELINE_ID	1
LAST_MODIFICATION_DATE	1
TEMP_SENSITIVE_HEATING_RATE	1
MIRN_STATUS	1
BASE_LOAD	1

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Physical Name	Optionality
REPORT_DATE	1
SETTLEMENT_RUNID	1

Note: Meter type = Interval or Basic

Small Customer = Y/N

Pipeline_Id = Unique identifier; eg S=Seagas, M=Moomba

MIRN Status = Commissioned, Decommissioned, Deregistered

SETTLEMENT_RUNID = "NAP", "NAF", "NAR" (Preliminary, Final and Revised)

8.7.5.3 *Event Codes*

Event Code Number
No event codes as report is outgoing.

8.7.5.4 *Examples*

NMI,GAS_DAY, GATEPOINT_ID, HEATING_VALUE_ZONE, SUB-NETWORK_ID, METER_TYPE, METER_NUMBER,
SMALL_CUSTOMER, TRANSMISSION_ZONE, COMMISSIONED_DATE, USER_GBO_ID, NETOP_GBO_ID, ROLR_ID, PIPELINE_ID,
MODIFIED_DATETIME, HEATING_RATE, MIRN_STATUS, BASE_LOAD, CURRENT_DATE, SETTLEMENT_RUNID

Values to be provided later

8.7.6 **Metering Registration Data (MRD-RPT)**

Details of meter by MIRN. Updated list posted each day.. details in a static, participant specific, CSV file.

When Issued: Publishes daily 7 day rolling data or when updates have been received. Only the updates and changes to MIRN registration data would need to be issued to retailers

8.7.6.1 **Report definition**

The report is generated daily or when updates have been received. Only the updates and changes to MIRN registration data would need to be issued to retailers

8.7.6.2 **Physical Mapping**

The data for this flow must be provided in as an automated electronic file.

Physical Name	Optionality
MIRN	1
GAS_DAY	1
GATEPOINT_ID	1
HV_ZONE	1
SUB_NETWORK_ID	1
METER_TYPE	1
METER_NUMBER	1
SMALL_CUSTOMER	1
TRANSMISSION_ZONE	1
MIRN_COMMISSIONED_DATE	1
USER_GBO_ID	1
NETOP_GBO_ID	1
ROLR_ID	1
PIPELINE_ID	1
LAST_MODIFICATION_DATE	1
TEMP_SENSITIVE_HEATING_RATE	1
MIRN_STATUS	1
BASE_LOAD	1
REPORT_DATE	1

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Note: Meter type = Interval or Basic
Small Customer = Y/N
Pipeline_Id = Unique identifier; eg S=Seagas, M=Moomba
MIRN Status = Commissioned, Decommissioned, Deregistered

8.7.6.3 *Event Codes*

Event Code Number
No event codes as report is outgoing.

8.7.6.4 *Examples*

NMI,GAS_DAY, GATEPOINT_ID, HEATING_VALUE_ZONE, SUB-NETWORK_ID, METER_TYPE, METER_NUMBER,
SMALL_CUSTOMER, TRANSMISSION_ZONE, COMMISSIONED_DATE, USER_GBO_ID, NETOP_GBO_ID, ROLR_ID, PIPELINE_ID,
MODIFIED_DATETIME, HEATING_RATE, MIRN_STATUS, BASE_LOAD, CURRENT_DATE, SETTLEMENT_RUNID

Values to be provided later

8.7.7 **Customer/MIRN Status (MIRN-UPD-RPT)**

This report is a MP specific report that shows the MIRNs won or lost, its commissioned status and the date of the change in status. The report will be generated each day and show a rolling 30 days of data for the avoidance of doubt this report only has entries for MIRNs that have changed FRO or status during the period and includes changes arising from a meter fix, reconnection, disconnection, abolishment, normal transfer and error correction.

When Issued: Daily

8.7.7.1 *Report definition*

This report only has entries for MIRNs that have changed FRO or MIRN status during the period.

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8.7.7.2 *Physical Mapping*

The data for this flow must be provided in as an automated electronic file.

Physical Name	Optionality
MIRN	1
GAS_DAY	1
SUB_NETWORK_ID	1
MOVEMENT	1
MIRN_STATUS	1
SMALL_CUSTOMER	1
METER_TYPE	1
LAST_MODIFICATION_DATE	1
REPORT_DATE	1

Note: Gas_Day field contains the Effective_From date of the meter in this report.

Movement = Won or Lost or None

Small Customer = Y/N

MIRN Status = Commissioned, Decommissioned, Deregistered

8.7.7.3 *Event Codes*

Event Code Number
No event codes as report is outgoing.

8.7.7.4 *Examples*

MIRN, GAS_DAY, SUB-NETWORK_ID, MOVEMENT, MIRN_STATUS, SMALL_CUSTOMER, METER_TYPE,
LAST_MODIFICATION_DATE, REPORT_DATE

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EC102688 / EC102687/Issue 4.4
1 Jan 2014

5783234311,2011-10-25,2101,L,Commissioned,Y,B,2011-10-27,2011-11-18
5738343212,2011-11-04,2101,W,Commissioned,Y,B,2011-11-08,2011-11-18

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8.7.8 Provision of MIRNs transferred to ROLR (SA and WA)

8.7.8.1 Data Flow Definition: Provision of MIRNs transferred to ROLR (PROV-ROLR-TFR) (WA Only)

This allows for the identification of a bulk list of MIRN that have been transferred to a new user as the result of an ROLR event.

8.7.8.2 Physical Mapping

Physical Name	Optionality
MIRN	1
MIRN_CHECKSUM	1
MIRN_STATUS	1
USER_GBO_ID	1

8.7.8.3 Example

```
MIRN,MIRN_CHECKSUM,MIRN_STATUS,USER_GBO_ID
5500000278,4,Commissioned, ALINTAGAS
5500003074,5,Commissioned, ORIGINGAS
5500023478,0,Commissioned, ALINTAGAS
5500047359,4,Commissioned, ALINTAGAS
5500067253,5,Commissioned, TXUGAS
5500079467,6,Commissioned, ALINTAGAS
5500089000,8,Commissioned, ALINTAGAS
5500099352,6,Commissioned, ALINTAGAS
5500102781,5,Commissioned, ALINTAGAS
```

8.7.8.4 *Data Flow Definition: Provision of MIRNs transferred to ROLR (PROV-ROLR-TFR) (SA Only)*

This allows for the identification of a bulk list of MIRN that have been transferred to a new user as the result of an ROLR event.

8.7.8.5 *Physical Mapping*

Physical Name	Optionality
MIRN	1
MIRN_CHECKSUM	1
FRB	1
ROLR_ID	1
ROLR_DATE	1

8.7.8.6 *Example*

```
MIRN,MIRN_CHECKSUM,FRB, ROLR_ID, ROLR_DATE  
5500000278,4, TXUGAS, ORIGIN GAS, 2004-07-23  
5500003074,5, TXUGAS, ORIGIN GAS, 2004-07-23  
5500023478,0, TXUGAS, ORIGIN GAS, 2004-07-23  
5500047359,4, TXUGAS, ORIGIN GAS, 2004-07-23
```

8.7.9 Provision of Transactions Cancelled during a ROLR event (WA ONLY)

8.7.9.1 *Data Flow Definition: Provision of Transactions Cancelled during a ROLR event (PROV-ROLR-CNCL-TX)*

This enables the communication of a list transactions that were cancelled as the result of an ROLR event.

8.7.9.2 *Physical Mapping*

Physical Name	Optionality
INITIATING_REQUEST_ID	1
MIRN	1
MIRN_CHECKSUM	1
PROCESS_START_DATE	1

8.7.9.3 *Example*

```
INITIATING_REQUEST_ID,MIRN,MIRN_CHECKSUM,PROCESS_START_DATE  
1,5500000278,4,2004-07-23  
2,5500003074,5,2004-07-19  
3,5500008129,2,2004-06-01
```

8.7.10 Base Load and Heating Rate (BLHR)

8.7.10.1 *Data flow Definition*

Network operator to notify the GRMS Operations staff of the base load and the heating rate for each basic-metered delivery point.

8.7.10.2 *Physical Mapping*

Physical Name	Optionality
MIRN	1
EFFECTIVE_DATE	1
BASE_LOAD	1
HEATING_RATE	1

8.7.10.3 *Example*

```
MIRN,EFFECTIVE_DATE,BASE_LOAD,HEATING_RATE
DPI5000111,2003-01-01,1000,22
DPI5000122,2003-01-01,1500,22
DPI5000133,2003-01-01,1500,22
DPI5000144,2003-01-01,1000,22
DPI5000155,2003-01-01,2000,22
DPI5000166,2003-01-01,1700,22
DPI5000177,2003-01-01,1000,22
```

8.8 Notices

Transactions have been classified in terms of the definition in the BS section 1.8

8.8.1 Code Summary

The table below is a complete list of those codes used to uniquely identify each notice.

Identifier	Data Flow Name
ECNND	Error Correction Notice for New Connection and Permanent Removal
ECNND-CONF-NOTF	Error correction for New Connection and Permanent Removal Confirmation Notification
ECNND-REJ	Error Correction Notice For New Connection and Permanent Removal rejected
DCN	Data change Notice
DCN-CAN-NOTF	Data Change Notice Cancelled Notification
DCN-MULT	Multiple Data change Notice
DCN-NO-MULT-NOTF	Notification that Multiple Data change Notice is not appropriate
REQ-BSD	Request For Bulk Standing Data
NOT-BSD-REJ	Notification of request for bulk standing Data rejected
NOT-SNC	Notice of new sub-network code
NOT-SDGEN	Notice of the time and date of Market Operator standing data generation
NOT-GBO	Notice of Market Operator GBO ID.
REQ-HSD	Historical Market Operator standing data request
WDR-HSD	Withdraw Historical Market Operator Standing Data request
NOT- HSD-REJ	Notification that Historical Market Operator Standing Data request was rejected.

Identifier	Data Flow Name
NOT-NOCHNG	Notice of no change made to registry entity
NOT-ROLR	Notice of invocation of ROLR scheme
NOT-ROLR-TD	Notification of ROLR transfer day
GBO-CHNG	Notice of change to GBO information
GBO-STATUS-CHNG	Notice of change to GBO Status
DIS-CAN-NOTF	Disconnection Cancelled Notification
REC-CAN-NOTF	Reconnection Cancelled Notification
PR-CAN-NOTF	Permanent Removal Cancelled Notification
NOT-NODB	Notice of change required in network operator databases
NOT-NODB-NOCHNG	Notice of no change made to network operator databases
NOT-DET-DEMAND	Determination of above 10TJ Demand

8.8.2 Mapping

Physical Transaction	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Notice	ECNND	Network Operator	The <i>Registry</i>	Notice	32	2.2.9
Notice	ECNND-CONF-NOTF	The <i>Registry</i>	Network Operator/ Current User	Notice	35	2.2.12
Notice	ECNND-REJ	The <i>Registry</i>	Network Operator	Notice	34	2.2.11
Notice	DCN	Network Operator/ Provider of BL and HR	The <i>Registry</i>	Notice	27	2.2.4

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Physical Transaction	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Notice	DCN-MULT	Network Operator/ Provider of BL and HR	The <i>Registry</i>	Notice	27	2.2.4
Notice	DCN-NO-MULT-NOTF	The <i>Registry</i>	Network Operator/ Provider of BL and HR	Notice	27	2.2.4
Notice	DCN-CAN-NOTF	The <i>Registry</i>	Network Operator/ Provider of BL and HR	Notice	31 133	2.2.8 3.6.9
Notice	NOT-SNC	Network Operator	Market Operator GRMS Ops	Notice	15	1.5.1
Notice	NOT-SDGEN	The <i>Registry</i>	Network Operator/ Current User	Notice	23	2.1.8
Notice	REQ-BSD	Network Operator/ Current User	The <i>Registry</i>	Notice	23	2.1.8
Notice	NOT-BSD-REJ	The <i>Registry</i>	Participant	Notice	23	2.1.8
Notice	NOT-GBO	RMA	GRMS Operations/ Participant	Notice	22	2.1.7
Notice	REQ-HSD	Participant	GRMS Operations	Notice	56	2.3.3

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Physical Transaction	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Notice	NOT- HSD-REJ	The Registry	Participant	Notice	57	2.3.4
Notice	NOT-NOCHNG	The Registry	Network Operator / Provider of BL and HR	Notice	29	2.2.6
Notice	NOT-ROLR	RMA	The Registry	Notice	104	3.4.1
Notice	NOT-ROLR-TD	The Registry	Participant	Notice	104	3.4.1
Notice	GBO-CHNG	RMA	The Registry	Notice	22	2.1.7
Notice	GBO-STATUS-CHNG	The Registry	Participant	Notice	22	2.1.7
Notice	DIS-CAN-NOTF	The Registry	Network Operator	Notice	115 31 133	3.5.11 2.2.8 3.6.9
Notice	REC-CAN-NOTF	The Registry	Network Operator	Notice	123 133	3.5.19 3.6.9
Notice	PR-CAN-NOTF	The Registry	Network Operator	Notice	131	3.6.7
Notice	NOT-NODB	The Registry	Network Operator	Notice	61	2.4.4
Notice	NOT-NODB-NOCHNG	Network Operator	The Registry	Notice	61	2.4.4
Notice	WDR-HSD	Participant	The Registry	Notice	57	2.3.4

8.8.3 Error Correction Notice for New Connection and Permanent Removal (ECNND)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, GBO Id of participant, type of transaction to be corrected, Market Operator IRID of transaction to be corrected, date on which transaction to be corrected was completed (ccyy-mm-dd)

8.8.4 Error correction for New Connection and Permanent Removal Confirmation Notification (ECNND-CONF-NOTF)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, Market Operator GBO Id, type of transaction corrected, Market Operator IRID of transaction corrected, Initiating unique reference

8.8.5 Error Correction Notice For New Connection and Permanent Removal rejected (ECNND-REJ)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, Market Operator GBO Id, type of transaction to be corrected, Market Operator IRID of transaction to be corrected, rejection reason, Initiating unique reference

8.8.6 Data change Notice (DCN)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: ALL OF: Notice Type, MIRN, MIRN Checksum, GBO Id of participant, Reason for change, Earliest Date of Change

AND ONE OF the following:

- New Gas Zone
- New Network Operator GBO Id,
- New Meter type
- New BL (South Australia Only)
- New HR (South Australia Only)

8.8.7 Request for bulk Market Operator Standing Data (REQ-BSD)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, GBO Id of participant, Any necessary supporting information

8.8.8 Notification of request for bulk standing Data rejected. (NOT-BSD-REJ)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, Market Operator GBO Id, Rejection Reason, Initiating Unique Reference

8.8.9 Notice of Market Operator GBO ID (NOT-GBO)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

Market Operator GBO Id

8.8.10 Multiple Data change Notice (DCN-MULT)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN (or range of MIRNs) with checksum(s). In practice, this may be defined by reference to another attribute. Eg. All MIRNs in a given sub-network.

GBO Id of participant, Effective date of change, Details of change, any necessary supporting information

8.8.11 Notification that Multiple Data change Notice is not appropriate (DCN-NO-MULT-NOTF)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN (or range of MIRNs) with checksum(s), Market Operator GBO Id, Details of change, rejection reason, Initiating Unique Reference

8.8.12 Data change Notice Cancelled Notification (DCN-CAN-NOTF)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, Market Operator GBO Id, cancellation reason

8.8.13 Notice of new sub-network code (NOT-SNC)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

N/A. This is a rare event, which will be communicated to the RMA.

8.8.14 Notice of the time and date of Market Operator standing data generation (NOT-SDGEN)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, Market Operator GBO Id, Date and Time of Standing Data Generation, Initiating Unique Reference

8.8.15 Historical Market Operator standing data request (REQ-HSD)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, GBO Id of requesting participant MIRN, MIRN Checksum, Start date of Historic Request, End date of Historic Request

8.8.16 Notification that Historical Market Operator Standing Data request was rejected. (NOT-HSD-REJ)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, Market Operator GBO Id, rejection reason, Initiating Unique Reference

8.8.17 Notice of no change made to registry entity (NOT-NOCHNG)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, Market Operator GBO Id, Market Operator generated unique id of transaction, Initiating unique reference, rejection reason

8.8.18 Notice of invocation of ROLR scheme (NOT-ROLR)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

N/A. This is a rare event, communications will be handled by the RMA

8.8.19 Notification of ROLR transfer day (NOT-ROLR-TD)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, Market Operator GBO Id, date of ROLR invocation, details of ROLR event

8.8.20 Notice of change to GBO information (GBO-CHNG)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, GBO Id, Name of Person, Capacity in which person operates, Status of GBO Id, electronic address, fax number, office address, postal address, Effective Date

8.8.21 Notice of inactive GBO Id (GBO-STATUS-CHNG)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, GBO Id, capacity in which person operates, Status of GBO Id ('active', 'suspended' or 'deregistered')

8.8.22 Disconnection Cancelled Notification (DIS-CAN-NOTF)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, Market Operator GBO Id, cancellation reason

8.8.23 Reconnection Cancelled Notification (REC-CAN-NOTF)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, Market Operator GBO Id, cancellation reason

8.8.24 Permanent Removal Cancelled Notification (PR-CAN-NOTF)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, Market Operator GBO Id, cancellation reason

8.8.25 Notice of change required in network operator databases (NOT-NODB)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, Details of change

8.8.26 Notice of no change made to network operator databases (NOT-NODB-NOCHNG)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, Details of why change has not been applied

8.8.27 Withdraw historical Market Operator standing data request (WDR-HSD)

This flow is defined as a Notice. That is, an unstructured instruction, such as fax, email etc. No data format shall be provided since this is unstructured information that is not relevant to any electronic systems interface.

Required Data:

SUBJECT FIELD: Unique Reference

CONTENTS: Notice Type, MIRN, MIRN Checksum, GBO Id, Unique Reference of original historical standing data request

9 METER READINGS

9.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	Transaction Group	RMR Ref:	BS Ref.
MeterDataNotification		BSCMR	Network Operator	Market Operator DEE	aseXML	MDMT	162	4.4.11
MeterDataResponse		BSCMR-RESP	Market Operator DEE	Network Operator	AseXML	MDMT	165,166	4.4.15
Automated Electronic File		INTMR	Network Operator Market Operator DEE	Market Operator DEE Participants	Automated Electronic File	N/A	162, 228, 213, 215(2)(a)	4.4.11, 5.10.16, 5.9.3, 5.9.8
Automated Electronic File		GPMD (WA)	Network Operator	Market Operator DEE	Automated Electronic File	N/A	152	4.3.2
Automated Electronic File		GPENG	Pipeline Operator Market Operator DEE	Market Operator DEE Pipeline Operator User	Automated Electronic File	N/A	210, 211(1)(a), 214, 215(1)	5.8.2, 5.8.4, 5.9.4, 5.9.12
Automated Electronic File		GPMD (SA)	Network Operator	Market Operator DEE	Automated Electronic File	N/A	152(3)	4.3.2

9.2 Code Summary

This table is a complete list of those codes used within the *Meter Reading* section to uniquely identify each particular flow.

Identifier	Data Flow Name
BSCMR	Basic Meter Reading Data
BSCMR-RESP	Response to Basic Meter Reading Data
GPMD	Gate Point Metering Data
INTMR	Interval Meter Reading Data
GPENG	Gate Point Energy Inflow
BSCMR-RPT	Basic Meter Reading Data CSV report

9.3 Metering Data

9.3.1 MeterDataNotification Transaction

9.3.1.1 *Physical Transaction*

MeterDataNotification

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
RecordCount	integer(10)	Mandatory	Account of the number of records include in the CSV payload.	1..1	RecordCount	xsd:integer totalDig="10"
CSVConsumptionData	ComplexType	Mandatory	The CSV payload.	1..1	CSVConsumptionData	

The following describes the CSV contents of the data element CSVConsumptionData.

Heading	Usage	Usage/ Comments
NMI	Mandatory	The MIRN for which the energy data is missing
NMI_CHECKSUM	Mandatory	The MIRN checksum
RB_REFERENCE_NUMBER	Not Required	N/A
REASON_FOR_READ	Not Required	N/A
GAS_METER_NUMBER	Not Required	N/A
GAS_METER_UNITS	Not Required	N/A
PREVIOUS_INDEX_VALUE	Not Required	N/A
PREVIOUS_READ_DATE	Mandatory	The date that the previous reading for the MIRN was taken. Ccyy-mm-dd
CURRENT_INDEX_VALUE	Not Required	N/A
CURRENT_READ_DATE	Mandatory	The date that the current reading for the MIRN was physically read. Ccyy-mm-dd
VOLUME_FLOW	Not Required	N/A
AVERAGE_HEATING_VALUE	Not Required	N/A
PRESSURE_CORRECTION_FACTOR	Not Required	N/A
CONSUMED_ENERGY	Mandatory	Energy flow measured in megajoules.
TYPE_OF_READ	Mandatory	The type of the reading for the meter. "A" – Actual "E" – Estimated "S" – substituted "D" – Deemed
ESTIMATION_SUBSTITUTION_TYPE	Not Required	N/A
ESTIMATION_SUBSTITUTION_REASON_CODE	Not Required	N/A
METER_STATUS	Not Required	N/A
NEXT_SCHEDULED_READ_DATE	Not Required	N/A
HI_LOW_FAILURE	Not Required	N/A
METER_CAPACITY_FAILURE	Not Required	N/A

Heading	Usage	Usage/ Comments
ADJUSTMENT_REASON_CODE	Not Required	N/A
ENERGY_CALCULATION_DATESTAMP	Not Required	N/A
ENERGY_CALCULATION_TIME_STAMP	Not Required	N/A

9.3.1.2 *Data flow Definition: Basic Meter Read Data (BSCMR)*

This flow provides a means for the network operator to provide the data estimation entity with basic meter energy values. This data is provided according to the schedule specified in the Retail Market ~~Rule~~[Procedures](#).

9.3.1.2.1 AseXML Example Transaction

```
<MeterDataNotification version="r9">
  <RecordCount>4</RecordCount>
  <CSVConsumptionData>
    NMI,NMI_Checksum,Previous_Read_Date,Current_Read_Date,Consumed_Energy,Type_of_Read
    5000000006,5,2002-01-01,2002-02-01,1000,A
    5000000006,5,2004-02-01,2004-04-01,1000,A
    5000000006,5,2004-02-01,2004-06-01,1000,A
    5000000006,5,2004-08-01,2004-10-01,1000,A
    5000000006,5,2004-10-01,2004-12-01,1000,A
  </CSVConsumptionData>
</MeterDataNotification>
```

9.3.1.2.2 Event Codes

Event Code Number
3204, 2127,2128, 3205, 3207, 3208, 3214, 3216, 5013

Note: In all cases the severity of each event will be “Error”.

9.3.2 MeterDataResponse Transaction

9.3.2.1 Physical Transaction

MeterDataResponse

Data Element	Format	Usage	Usage/ Comments	AseXML		
				Occurs	Element Path	Data Type
ActivityId	Numeric(10)	Mandatory	The unique ID assigned by the Market Operator AEMO to the reading data.	1	ActivityId	xsd:nonNegativeIntege
AcceptedCount	Numeric(10)	Mandatory	The number of accepted meter readings.	1	AcceptedCount	xsd:nonNegativeIntege
Load Date	Date(10)	Mandatory	The date that the meter readings were processed.	1	LoadCount	xsd:dateTime
Event	Complex Type	Optional	Any errors are reported via the Event element. See 9.3.1.2.2 for codes	0..n	Event	Complex Type – Event

9.3.2.2 Data flow Definition: Response to Basic Meter Read Data (BSCMR-RESP)

The data estimation entity to notify the network operator of the result of the basic meter read data to the schedule specified in the [ruleProcedures](#)

9.3.2.2.1 AseXML Example Transaction

Load Successful:

```
<MeterDataResponse version="r6">
  <ActivityID>5</ActivityID>
  <AcceptedCount>21</AcceptedCount>
  <LoadDate>2004-02-04T12:00:00.000+10:00</LoadDate>
</MeterDataResponse>
```

Load Partially Successful:

```
<MeterDataResponse version="r6">
  <ActivityID>123</ActivityID>
  <AcceptedCount>2</AcceptedCount>
  <LoadDate>2004-02-04T12:00:00.000+10:00</LoadDate>
  <Event class="Application" severity="Error">
    <Code description="Invalid DPI">3209</Code>
    <KeyInfo>5000000006,5,2004-01-01,2004-01-02,1000,A</KeyInfo>
    <Context>5000000006</Context>
    <Explanation>The Specified DPI could not be found in the system</Explanation>
  </Event>
  <Event class="Application" severity="Error">
    <Code description="Invalid Gas Date Format">3216</Code>
    <KeyInfo>5000000006,5,THURSDAY,2004-01-02,1000,A</KeyInfo>
    <Context>5000000006</Context>
    <Explanation>The supplied GasDate String could not be converted to a Date</Explanation>
  </Event>
  <Event class="Application" severity="Error">
    <Code description="Invalid Gas Date Format">3216</Code>
    <KeyInfo>5000000006,5,2004-01-01,2004/01/02,1000,A</KeyInfo>
    <Context>5000000006</Context>
    <Explanation>The supplied GasDate String could not be converted to a Date</Explanation>
  </Event>
  <Event class="Application" severity="Error">
    <Code description="Invalid value for reading">3214</Code>
    <KeyInfo>5000000006,5,2004-01-01,2004-01-02,A,asdewsdfffgggg</KeyInfo>
    <Context>asdewsdfffgggg</Context>
    <Explanation>The supplied reading value could not be converted to an integer
value</Explanation>
  </Event>
  <Event class="Application" severity="Error">
    <Code description="Invalid Meter Reading type">3208</Code>
    <KeyInfo>5000000006,5,2004-01-01,2004-01-02,Z,1000</KeyInfo>
    <Context>Z</Context>
    <Explanation>The Meter Reading type must be one of A,E,S,X</Explanation>
  </Event>
```

```
<Event class="Application" severity="Error">  
  <Code description="Reading of better quality for this metering period already exists for this  
meter  
>3676</Code>  
  <KeyInfo>5000000006,5,2004-01-01,2004-01-02,Z,1000</KeyInfo>  
  <Context>1000|Z</Context>  
  <Explanation>Reading of better quality for this metering period already exists for this meter  
</Explanation>  
</Event>  
</MeterDataResponse>
```

9.3.3 Interval Meter Read Data (INTMR)

9.3.3.1 Data flow Definition

The network operator to notify the data estimation entity of interval meter read data on and hourly and daily basis to the schedule specified in the [ruleProcedures](#).

9.3.3.2 Physical Mapping

The data for this flow must be provided in an automated electronic file. The appropriate acknowledgement holds all the events associated with the processing of the interval meter reading file. There is no message similar to “BSCMR-RESP” as this is covered by the acknowledgement mechanism. Note that for Interval Meters ‘GAS_DAY’ means the day to which the hourly consumption data relates.

Physical Name	Optionality
MIRN	1
MIRN_CHECKSUM	1
GAS_DAY	1
SUB_NETWORK_ID	1
CONSUMPTION_HR01	1
CONSUMPTION_HR02	1
CONSUMPTION_HR03	1
CONSUMPTION_HR04	1
CONSUMPTION_HR05	1
CONSUMPTION_HR06	1
CONSUMPTION_HR07	1
CONSUMPTION_HR08	1
CONSUMPTION_HR09	1
CONSUMPTION_HR10	1

Physical Name	Optionality
CONSUMPTION_HR11	1
CONSUMPTION_HR12	1
CONSUMPTION_HR13	1
CONSUMPTION_HR14	1
CONSUMPTION_HR15	1
CONSUMPTION_HR16	1
CONSUMPTION_HR17	1
CONSUMPTION_HR18	1
CONSUMPTION_HR19	1
CONSUMPTION_HR20	1
CONSUMPTION_HR21	1
CONSUMPTION_HR22	1
CONSUMPTION_HR23	1
CONSUMPTION_HR24	1
TOTAL_DAILY_CONSUMPTION	1
TYPE_OF_READ	1

9.3.3.3 *Event Codes*

Event Code Number
5200, 5202, 5403, 5601, 5604, 5605, 5606, 5609

9.3.3.4 *Examples*

9.3.3.4.1 During gas day

MIRN, MIRN_CHECKSUM, GAS_DAY, SUB-NETWORK-ID,
CONSUMPTION_HR01, CONSUMPTION_HR02, CONSUMPTION_HR03, CONSUMPTION_HR04, CONSUMPTION_HR05, CONSUMPTION_HR06,

```
CONSUMPTION_HR07,CONSUMPTION_HR08,CONSUMPTION_HR09,CONSUMPTION_HR10,CONSUMPTION_HR11,CONSUMPTION_HR12,
CONSUMPTION_HR13,CONSUMPTION_HR14,CONSUMPTION_HR15,CONSUMPTION_HR16,CONSUMPTION_HR17,CONSUMPTION_HR18,
CONSUMPTION_HR19,CONSUMPTION_HR20,CONSUMPTION_HR21,CONSUMPTION_HR22,CONSUMPTION_HR23,CONSUMPTION_HR24,
TOTAL_DAILY_CONSUMPTION,TYPE_OF_READ
5888995588,8,2003-10-10,2101, 10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,,,,,,E
5888996688,8,2003-10-10,2101, 10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,,,,,,A
```

9.3.3.4.2 After gas day

```
MIRN,MIRN_CHECKSUM,GAS_DAY,SUB-NETWORK-ID,
CONSUMPTION_HR01,CONSUMPTION_HR02,CONSUMPTION_HR03,CONSUMPTION_HR04,CONSUMPTION_HR05,CONSUMPTION_HR06,
CONSUMPTION_HR07,CONSUMPTION_HR08,CONSUMPTION_HR09,CONSUMPTION_HR10,CONSUMPTION_HR11,CONSUMPTION_HR12,
CONSUMPTION_HR13,CONSUMPTION_HR14,CONSUMPTION_HR15,CONSUMPTION_HR16,CONSUMPTION_HR17,CONSUMPTION_HR18,
CONSUMPTION_HR19,CONSUMPTION_HR20,CONSUMPTION_HR21,CONSUMPTION_HR22,CONSUMPTION_HR23,CONSUMPTION_HR24,
TOTAL_DAILY_CONSUMPTION,TYPE_OF_READ
5888995588,8,2003-10-10,2101,
10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,240,E
5888996688,8,2003-10-10,2101,
10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,10,240,A
```

9.3.4 Gate Point Metering Data (GPMD) (WA)

9.3.4.1 Data flow Definition

The network operator to notify the data estimation entity of the metering data for each gate point for the gas day.

9.3.4.2 Physical Mapping

The data for this flow must be provided in as an automated electronic file.

Physical Name	Optionality
GATE_POINT_ID	1
GAS_DAY	1
ENERGY_HR01	0-1

Physical Name	Optionality
ENERGY_HR02	0-1
ENERGY_HR03	0-1
ENERGY_HR04	0-1
ENERGY_HR05	0-1
ENERGY_HR06	0-1
ENERGY_HR07	0-1
ENERGY_HR08	0-1
ENERGY_HR09	0-1
ENERGY_HR10	0-1
ENERGY_HR11	0-1
ENERGY_HR12	0-1
ENERGY_HR13	0-1
ENERGY_HR14	0-1
ENERGY_HR15	0-1
ENERGY_HR16	0-1
ENERGY_HR17	0-1
ENERGY_HR18	0-1
ENERGY_HR19	0-1
ENERGY_HR20	0-1
ENERGY_HR21	0-1
ENERGY_HR22	0-1
ENERGY_HR23	0-1
ENERGY_HR24	0-1
ENERGY	0-1

Event Code Number
5200, 5202, 5403, 5601, 5603, 5608, 5609

[illegible]

Physical Name	Optionality
GATE_POINT_ID	1
GAS_DAY	1
ENERGY_HR01	0-1
ENERGY_HR02	0-1
ENERGY_HR03	0-1

Physical Name	Optionality
ENERGY_HR04	0-1
ENERGY_HR05	0-1
ENERGY_HR06	0-1
ENERGY_HR07	0-1
ENERGY_HR08	0-1
ENERGY_HR09	0-1
ENERGY_HR10	0-1
ENERGY_HR11	0-1
ENERGY_HR12	0-1
ENERGY_HR13	0-1
ENERGY_HR14	0-1
ENERGY_HR15	0-1
ENERGY_HR16	0-1
ENERGY_HR17	0-1
ENERGY_HR18	0-1
ENERGY_HR19	0-1
ENERGY_HR20	0-1
ENERGY_HR21	0-1
ENERGY_HR22	0-1
ENERGY_HR23	0-1
ENERGY_HR24	0-1
ENERGY	0-1
READ_TYPE_FLAG	1

Event Code Number
5200, 5202, 5403, 5601, 5603, 5608, 5609

[illegible]

9.3.6.1 Data flow Definition

9.3.6.2 *Physical Mapping*

Physical Name	Optionality
GATE_POINT_ID	1
GAS_DAY	1
ENERGY_INFLOW_HR01	0-1
ENERGY_INFLOW_HR02	0-1
ENERGY_INFLOW_HR03	0-1

Physical Name	Optionality
ENERGY_INFLOW_HR04	0-1
ENERGY_INFLOW_HR05	0-1
ENERGY_INFLOW_HR06	0-1
ENERGY_INFLOW_HR07	0-1
ENERGY_INFLOW_HR08	0-1
ENERGY_INFLOW_HR09	0-1
ENERGY_INFLOW_HR10	0-1
ENERGY_INFLOW_HR11	0-1
ENERGY_INFLOW_HR12	0-1
ENERGY_INFLOW_HR13	0-1
ENERGY_INFLOW_HR14	0-1
ENERGY_INFLOW_HR15	0-1
ENERGY_INFLOW_HR16	0-1
ENERGY_INFLOW_HR17	0-1
ENERGY_INFLOW_HR18	0-1
ENERGY_INFLOW_HR19	0-1
ENERGY_INFLOW_HR20	0-1
ENERGY_INFLOW_HR21	0-1
ENERGY_INFLOW_HR22	0-1
ENERGY_INFLOW_HR23	0-1
ENERGY_INFLOW_HR24	0-1

9.3.6.3 *Event Codes*

Event Code Number
5200, 5202, 5403, 5601, 5603, 5608

Physical Name	Optionality
CONSUMED_ENERGY	1
REPORT_DATE	1

9.3.7.3 **Note:** *TYPE_OF_READ = A Actual, E Estimated, S Substituted, D Deemed*

9.3.7.4 **Event Codes**

Event Code Number
No event codes as report is outgoing.

9.3.7.5 **Examples**

MIRN, PREVIOUS_READ_DATE, CURRENT_READ_DATE, TYPE_OF_READ, CONSUMED_ENERGY, REPORT_DATE
5101010101, 2010-03-05, 2010-06-08, A, 12345, 2010-07-30
5102020202, 2010-02-27, 2010-05-30, A, 23465, 2010-07-30

10 BALANCING, ALLOCATION, AND RECONCILIATION

10.1 Transaction Mapping

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Automated Electronic File		UAI	User	Market Operator DEE	Automated Electronic File	188(1) 189(1)	5.4.5
Automated Electronic File		UA-SHP	Market Operator DEE	Shipper	Automated Electronic File	192(2)	5.4.9
Automated Electronic File		UAI-SUBS	Market Operator DEE	User	Automated Electronic File	192	5.4.11
Automated Electronic File		UAI-INV	Market Operator DEE	User	Automated Electronic File	192	5.4.8
Notice		NOT-UAI-USR	Market Operator GRMS Ops	Market Operator RMA	Notice	192(2)	5.4.9
Notice		SHPREGLST	Swing service Provider, Shipper	Market Operator GRMS Ops	Notice	173(2)	5.3.2
Notice		SHPRPTREQ	Pipeline Operator	Market Operator DEE	Notice	173(6)	5.3.5
Bulk electronic file		SHPREGRPT	Market Operator DEE	Pipeline Operator	Bulk electronic file	173(6)	5.3.5
Notice		SHPREGRMV	Pipeline Operator	Market Operator DEE	Notice	173(10)	5.3.7

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Notice		PROF	Market Operator RMA	Market Operator DEE	Notice	200(1) 209(1)	5.5.3
Automated Electronic File		PIPPRF	Pipeline Operator	Market Operator DEE	Automated Electronic File	176	5.6.3
Automated Electronic File		PIPRATIO	Market Operator DEE	Pipeline Operator	Automated Electronic File	176	5.6.3
Automated Electronic File		UPNA	User	Market Operator DEE	Automated Electronic File	197(2) 184	5.6.9 5.6.10
Automated Electronic File		NPN	Market Operator DEE	User, Shipper, Network Operator, Pipeline Operator, Swing Service Provider	Automated Electronic File	199 212	5.6.13 5.8.1
Automated Electronic File		PPN	Market Operator DEE	User, Shipper, Network Operator, Pipeline Operator, Swing Service Provider	Automated Electronic File	199	5.6.13
Automated Electronic File		FUAFG	Network Operator	Market Operator DEE	Automated Electronic File	201(1)	5.7.2
Automated Electronic File		AUIW	User	Market Operator DEE	Automated Electronic File	202(1) 185(1)&(2)	5.7.3 5.7.4
Automated Electronic File		IMDPROF	User	Market Operator DEE	Automated Electronic File	202(1) 185(1)&(2)	5.7.3 5.7.4

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Automated Electronic File		NPF	Market Operator DEE	User, Shipper, Pipeline Operator, Swing Service Provider	Automated Electronic File	205(4)(a) 216(1) (d)	5.7.22 5.9.13
Automated Electronic File		UPF	Market Operator DEE	User	Automated Electronic File	204(3) 216(1) (d)	5.7.23 5.9.13
Automated Electronic File		PPF	Market Operator DEE	Shipper, Pipeline Operator, Swing Service Provider	Automated Electronic File	206(2) 207 216(1) (d)	5.7.25 5.7.26 5.9.13
Automated Electronic File		GPENGPROF	Market Operator RMA	User, Pipeline operator	Automated Electronic File	211(1), 215(1)	5.8.4, 5.9.12
Automated Electronic File		ECA	Market Operator RMA	User	Automated Electronic File	215(2)(b)	5.9.7
Automated Electronic File		UUAFG	Network Operator	Market Operator DEE	Automated Electronic File	229	5.10.3
Automated Electronic File		RUAFG	Market Operator DEE	Network Operator	Automated Electronic File	223(2)(c)	5.10.10
Automated Electronic File		AUAFG	Market Operator DEE	Network Operator	Automated Electronic File	230(2), 244(a), (d) & (e), 240(2)	5.11.22

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Automated Electronic File		UETW	Market Operator DEE	User	Automated Electronic File	228(2)	5.10.16
Automated Electronic File		HDD	Market Operator DEE	User Network Operator	Automated Electronic File	204(4)(b) 216(1) (d) 228(4)	5.7.24 5.9.13 5.10.16
Automated Electronic File		TRA	Market Operator DEE	User Network Operator	Automated Electronic File	230(2), 244(a), (d) & (e), 240(2)	5.11.22
Automated Electronic File		GAA	Market Operator DEE	User Network Operator Pipeline Operator	Automated Electronic File	230(2), 244(a), (d) & (e), 240(2)	5.11.22
Automated Electronic File		UHRA	Market Operator DEE	User	Automated Electronic File	230(2), 244(a), (d) & (e), 240(2)	5.11.22
Notice		MRA-NOTF	Market Operator RMA	Market Operator DEE	Notice	239	5.11.15
Automated Electronic File		NORM-NSL	Market Operator DEE	User, Network Operator	Automated Electronic File	230(2),244(1)(a), (d) (e), (f) & (g), 240(2)	5.11.22
Automated Electronic File		DI	Market Operator DEE	Shipper, Pipeline Operator	Automated Electronic File	246	5.12.2

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
				Swing Service Provider			
Automated Electronic File		UDW	Market Operator DEE	User	Automated Electronic File	248	5.12.4
Automated Electronic File		UHSA	Market Operator DEE	User	Automated Electronic File	252(1)	5.14.5
Automated Electronic File		SHGA	Market Operator DEE	Shipper Swing Service Provider Pipeline Operator	Automated Electronic File	252(2)	5.14.7
Automated Electronic File		SS	Market Operator DEE	User, Pipeline Operator Network Operator Shipper	Automated Electronic File	296, 300, 277(2)	5.17.27, 5.18.2
Automated Electronic File		USS	Market Operator DEE	User	Automated Electronic File	296, 300	5.17.27
Automated Electronic File		OMP-USR	User	Market Operator DEE	Automated Electronic File	267	5.16.1
Automated Electronic File		OMP-SSP	Swing Service Provider	Market Operator DEE	Automated Electronic File	268	5.16.4
Automated Electronic File		OMP-SURPLUS	Swing Service Provider	Market Operator DEE	Automated Electronic File	281	5.17.7

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Automated Electronic File		OMP-STATUS	Market Operator DEE	Swing Service Provider and User	Automated Electronic File	269(2)	5.16.8
Automated Electronic File		BID-SSP	Swing Service Provider	Market Operator DEE	Automated Electronic File	281	5.17.4
Automated Electronic File		BID-PUB	Market Operator DEE	Swing Service Provider and User Participant	Automated Electronic File	296, 300 277	5.17.27, 5.18.2
Automated Electronic File		MCP-TSS	Market Operator DEE	Swing Service Provider and User Participant	Automated Electronic File	296,300 277	5.17.27 5.18.2
Automated Electronic File		MCP-TANUSA	Market Operator DEE	Swing Service Provider and User Participant	Automated Electronic File	296, 300 277	5.17.27 5.18.2
Automated Electronic File		BID-ALLOC	Market Operator DEE	Swing Service Provider and User	Automated Electronic File	296, 300	5.17.27
Automated Electronic File		SRQ	Market Operator DEE	User	Automated Electronic File	299	5.17.26
Automated Electronic File		OMP-APP	Market Operator DEE	Swing Service Provider and User	Automated Electronic File	296, 300	5.17.27

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Automated Electronic File		MILP	Market Operator DEE	User	Automated Electronic File	184A	5.20.2
Automated Electronic File		DGQ	Market Operator DEE	Pipeline Operator, Shipper and Swing Service Provider	Automated Electronic File	302(3)	5.19.4
Automated Electronic File		PCI-HST	Market Operator DEE	User Network Operator	Automated Electronic File	244(3)	5.11
Automated Electronic File		UETW-HST	Market Operator DEE	User Network Operator	Automated Electronic File	244(1)(h)	5.11
Notice		CALC-REQUEST	Market Operator RMA	Market Operator GRMS Ops	Notice	301A	5.23
Notice		GEN-NOTIFY	Market operator DEE	User, ROLR, Network Operator, Shipper, Pipeline Operator Swing Service Provider	Notice	301A	5.23
Notice		SASP-NOTIFY	Market Operator	GRMS	Notice		TBA
Notice		EASP-NOTIFY	Market Operator	GRMS	Notice		TBA

Physical Transaction	Variation	Logical Flow Short Name	From	To	Transaction Type	RMR Ref:	BS Ref.
Notice		ASPDATA	GRMS	Appointed Independent Reviewer or Independent Expert	Notice		TBA
Notice		RECALC-REQUEST	Market Operator	GRMS	Notice	301(B), 301(C)	5.23
Notice		SS-OVERTHRES	GRMS	Market Operator	Notice	301(B)	5.15
Notice		GPMD-DIFFOVER	GRMS	Market Operator	Notice	301(C)	4.3
Notice		GPMD-ESTREPREQ	Market Operator	GRMS	Notice	152(3)	4.3
Notice		GPMD-ESTREPORT	GRMS	Market Operator	Notice	301(2)	4.3

10.2 Code Summary

This table is a complete list of those codes used within the Balancing, Allocation and Reconciliation section to uniquely identify each particular flow.

Identifier	Data Flow Name
AUAFG	Actual Unaccounted For Gas

Identifier	Data Flow Name
AUIW	Anticipated User Interval Withdrawal
BID-ALLOC	Notification of Swing Service Allocation through the Bid Stack
BID-PUB	Bid Stack Publication
BID-SSP	Swing Service Bids
DI	Deemed Injections
ECA	Estiamted Consumption Amount
CALC-REQUEST	Request for Suspension of BAR calculations
GEN-NOTIFY	General Notification
FUAFG	Forecast unaccounted for gas
GAA	Gate Point Adjustment Amount
GPENGPROF	Gate Point Energy and Profile
HDD	Heating Degree Day
IMDPROF	Interval-Meter Demand Profile
MCP-TANUSA	The MCP for the total of all adjusted non-user-specific amounts of Swing Service to be procured through the bid stack. ("marginal clearing price for the total of all adjusted socialised amounts of swing service" in SA)
MCP-TSS	Marginal clearing price (MCP) for the total amount of Swing Service to be procured through the bid stack
MRA-NOTF	Miscellaneous Reconciliation Amount
NORM-NSL	Normalisation Factor and Net System Load
NOT-UAI-USR	User Allocation Instruction - Use Shipper Register
NPF	Sub-Network Profile Forecast
NPN	Sub-network Profiled Nomination
OMP-APP	Applied Off-market service procurement
OMP-SSP	Swing Service Provider off-market service procurement
OMP-STATUS	Off-market service procurement instruction Status
OMP-SURPLUS	Swing Service Provider off-market service procurement surplus instruction
OMP-USR	User off-market service procurement

Identifier	Data Flow Name
PIPPRF	Pipeline Profile
PIPRATIO	Pipeline Ratio
PPF	Participant Profile Forecast
PPN	Pipeline Profiled Nomination
PROF	Profile
PUSA	Notice of Penalty User-Specific Amount of Swing Service
RUAFG	Revised User's unaccounted for gas
SHGA	Shippers hourly gate point apportionment
SHPREGLST	Shipper Register Listing Request
SHPREGRMV	Shipper Register Removal
SHPREGRPT	Shipper Registration Report
SHPRPTREQ	Shipper Registration Report Request
SRQ	Swing Service Repayment Quantity
SS	Swing Service
TRA	User's total reconciliation amount
UAI	User Allocation Instruction
UAI-INV	Invalid User Allocation Instruction
UAI-SUBS	Notification about substituted user allocation instruction
UA-SHP	User Allocation for a Shipper
UDW	User's total deemed withdrawal
UETW	User's estimated total withdrawal
UHSA	User's hourly sub network apportionment
UHRA	User's Historical Gas Day Reconciliation Amounts
UPF	User's Profile Forecast
UPNA	User's Pipeline Nomination

Identifier	Data Flow Name
USS	User's swing service amounts
UUAFG	User's unaccounted for gas
MILP	Monthly Interval-Meter Load Percentage
DGQ	Deemed Gas Quantity
PCI-HST	Historical pipeline injection data
UETW-HST	Historical user withdrawal data
SASP-NOTIFY	Start of Alternative Settlement Period Notification
EASP-NOTIFY	End of Alternative Settlement Period Notification
ASPDATA	ASPDATA Report
RECALC-REQUEST	Request to Recalculate
SS-OVERTHRES	Swing Service Over Threshold and Calculated With Estimated GPMD
GPMD-DIFFOVER	Difference between Estimated and Actual GPMD Values Exceeds Threshold
GPMD-ESTREPREQ	Request for Estimate Usage in Market Calculation Repor
GPMD-ESTREPORT	Estimate Usage in Market Calculation Report

10.3 Allocation Instruction

10.3.1 User Allocation Instruction (UAI)

10.3.1.1 *Data flow Definition*

The user to provide to the data estimation entity their allocation instruction for the gas day which specifies the amount or percentage of the user's expected requirement of gas for the day that is allocated to the shipper's who inject gas into the sub-network for the user.

A user allocation instruction set are the instruction for the same user, sub-network and gas day.

With the introduction of the STTM in the SA Market the allocation instructions applies only to the non-STTM sub-networks. Therefore, any allocation instruction fields for the Adelaide metro sub-network (2101) will always contain 0.

A user allocation instruction set received by GRMS would replace any user allocation instruction set for the same combination of user, sub-network and gas day previously received by GRMS.

Each instruction in a user allocation instruction set has to be valid for the user allocation instruction set to be valid.

10.3.1.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SHIPPER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
ALLOCATION_PRECEDENCE	1
ALLOCATION_TYPE	1
ALLOCATION	1

10.3.1.3 *Event Codes*

Event Code Number
5200, 5204, 5207, 5208, 5213, 5217, 5220, 5400, 5403, 5607, 5202, 5601

Note: In all cases the severity of each event will be “Error”.

10.3.1.4 *Example*

```
USER_GBO_ID,SHIPPER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,ALLOCATION_PRECEDENCE,ALLOCATION_TYPE,ALLOCATION
USR1,SHP1,1101,2003-10-10,1,P,25
USR1,SHP2,1101,2003-10-10,2,P,30
USR1,SHP3,1101,2003-10-10,3,P,30
USR1,SHP4,1101,2003-10-10,4,P,15
USR1,SHP1,1101,2003-10-11,1,Q,5500
USR1,SHP2,1101,2003-10-11,2,Q,4300
USR1,SHP3,1101,2003-10-11,3,P,50
USR1,SHP4,1101,2003-10-11,4,P,50
USR1,SHP1,1101,2003-10-12,1,Q,6700
USR1,SHP2,1101,2003-10-12,2,Q,4300
USR1,SHP4,1101,2003-10-12,3,P,100
```

10.3.1.5 *GRMS validation procedure*

The header of the csv file defines the columns. Each line in the flow represents a user allocation request. All allocation requests in the message are grouped by:

- USER_GBO_ID
- SUB_NETWORK_ID
- GAS_DAY

To create a user allocation instruction for the user, the gas day and the sub-network, first the user allocation instruction (the group) is validated as follows:

- the GAS_DAY column is validated
- the USER_GBO_ID column is validated
- the USER_GBO_ID is validated against the sender of the message
- the timeline for providing the information is validated

Then each of the user allocation requests is validated separately against the following criteria:

- the ALLOCATION_PRECEDENCE of the user allocation request has to be unique across the whole user allocation instruction (group). This also means that each of the user allocation requests has to have the ALLOCATION_PRECEDENCE populated
- the SHIPPER_GBO_ID gets validated
- the shipper is validated against the shippers register
- the ALLOCATION_TYPE is validated. It can be populated only to P-Percentage or Q-Quantity.
- The allocation precedence has to be a positive number
- The sum of the requests of type percentage has to be equal 100%.
- When the allocation type equals “Q” then the allocation must be greater than 0.

If the whole user allocation instruction or any the user allocation requests doesn't comply with the above specified criteria the user allocation instruction (for the user, the gas day and the sub-network) is rejected with appropriate event code.

10.3.1.6 *Invalid Example*

The following is an example of an invalid UAI file:

```
USER_GBO_ID,SHIPPER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,ALLOCATION_PRECEDENCE,ALLOCATION_TYPE,ALLOCATION  
  
USR1,SHP1,1101,2003-03-09,1,P,100  
USR1,SHP1,1105,2003-03-09,1,P,100  
USR1,SHP1,1106,2003-03-09,2,P,100
```

USR1, SHP2, 1106, 2003-03-09, 1, Q, 0
USR1, SHP1, 1107, 2003-03-09, 1, P, 100
USR1, SHP1, 1108, 2003-03-09, 1, P, 100
USR1, SHP1, 1109, 2003-03-09, 1, P, 100
USR1, SHP1, 1110, 2003-03-09, 1, P, 100
USR1, SHP1, 1112, 2003-03-09, 1, P, 100

In the above example if the yellow highlighted allocation was greater than zero, then this UAI would have passed the validation criteria

10.3.1.7 *Processes*

Refer to the BS for full details. The user allocation instruction is used in the following GRMS processes:

- Actual user allocation percentage
- Before the gas day
- South Australia forecasting methodology
- User's deemed withdrawal and Shippers/Swing Service provider's deemed injections
- User's hourly sub-network apportionment and Shippers/Swing Service provider's gate point apportionment

10.3.1.7.1 *Actual user allocation percentage*

The user allocation instruction is provided for a daily energy value. This means that the user allocation request provided by quantity has to be allocated among the daily value. To deal with this situation the ~~rule~~[Procedure](#)s describes how to derive the actual allocation proportion. This is described later in this section.

10.3.1.7.2 Before the gas day

The forecasting is the first business process for each of the gas days. During this process GRMS validates that it has a valid user allocation instruction for each user in each sub-network for the gas day (forecasted gas day). If it is missing then the user's allocation instruction is substituted for the gas day.

The user allocation instruction is then used appropriately in the forecasting for the SA sub-networks.

10.3.1.7.3 Forecasting for South Australia

In the forecasting process for South Australia, the forecasted values are allocated using the allocation instruction and actual allocation proportion as described later.

10.3.1.7.4 User's deemed withdrawal and Shippers/Swing Service provider's deemed injections

After the end of each gas day the GRMS system allocates the user's estimated total withdrawal less swing gas repayment amount to shippers using the user allocation instruction.

This process first allocates energy quantities to the shipper where the type of the allocation is quantity and in the order of the ALLOCATION_PRECEDENCE. The requests with the lowest precedence number will get applied first.

There could be three outcomes of this first stage of the process. Not all of the quantity requests are applied because there is not enough energy to allocate to all of the quantity requests. The exact UETW amount is allocated to quantity requests. Finally there could be some remaining quantity. This remaining quantity is allocated using the requests given by percentage.

Once the allocation is done the actual allocation proportion can be derived. The actual allocation proportion is the percentage of the quantity allocated to the request against the total quantity being allocated. This actual allocation proportion is used in the business process that allocates the hourly energy of data. Note that when the allocation instruction is given solely in percentages the actual allocation proportion is the same as the original percentages of the allocation instruction.

The actual allocation proportion is used during the forecasting for South Australia with one difference, it is derived by allocating the total forecasted energy value rather than the UETW value which is not known at the time of forecasting.

10.3.1.7.5 User's hourly sub-network apportionment and Shippers/Swing Service provider's gate point apportionment

This business process uses the actual allocation proportion to allocate the hourly sub-network apportionment for users to shippers.

10.3.2 User Allocation for a Shipper (UA-SHP)

10.3.2.1 Data flow Definition

Where the data estimation entity is required to allocate the user's gas injections for a gas day because the user has not provided a valid user's allocation instruction, the data estimation entity must inform each shipper that it has made allocations to of the user the allocation is for and the amount of the allocation.

10.3.2.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
ALLOCATION_TYPE	1
ALLOCATION	1

10.3.2.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

Note: In all cases the severity of each event will be "Error".

10.3.2.4 Example

```
USER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,ALLOCATION_TYPE,ALLOCATION  
USR1,1101,2004-10-10,P,50
```


USR2,1101,2004-10-10,P,50

10.3.3 User Allocation Instruction – Used Shipper Register (NOT-UAI-USR)

10.3.3.1 *Data flow Definition*

Where the data estimation entity is required to allocate the user's gas injections for a gas day, because the user has not provided a valid user's allocation instruction, the data estimation entity must inform the RMA when it has used the method for determining the allocation that uses the shipper register.

10.3.3.2 *Physical Mapping*

The data for this flow must be provided in an notice.

Physical Name	Optionality
USER_GBO_ID	1
SHIPPER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
ALLOCATION	1
ALLOCATION_TYPE	1

10.3.4 Shipper Register Listing Request (SHPREGLST)

10.3.4.1 *Data flow Definition*

A shipper or swing service provider may request to be added or removed from the shipper's register. A pipeline operator may also request that a shipper or a swing service provider be removed from the shipper's register.

10.3.4.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
USER_GBO_ID	1
SHIPPER_GBO_ID	1
SUB_NETWORK_ID	1
NOTIFICATION_TYPE	1
EFFECTIVE_DATE	1

10.3.5 Shipper Register Removal (SHPREGRMV)

10.3.5.1 *Data flow Definition*

Where a pipeline operator has requested that a shipper or a swing service provider be removed from the shipper's register the data estimation entity must inform the shipper or a swing service provider

10.3.5.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
PARTICIPANT_GBO_ID	1
SUB_NETWORK_ID	1
PIPELINE_OPR_GBO_ID	1
REMOVAL_REASON	1
EFFECTIVE_DATE	1

10.3.6 Shipper Register Report Request (SHPRPTREQ)

10.3.6.1 *Data flow Definition*

The notification used to request from the data estimation entity the report of the shipper's details from the shipper register.

10.3.6.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
PIPELINE_ID	1
SUB_NETWORK_ID	1

10.3.7 Shipper Register Report (SHPREGRPT)

10.3.7.1 Data flow Definition

The data estimation entity to provide on request the shipper's details from the shipper register.

10.3.7.2 Physical Mapping

The data for this flow must be provided in an Bulk electronic file.

Physical Name	Optionality
PIPELINE_ID	1
SUB_NETWORK_ID	1
SHIPPER_GBO_ID	1

10.3.7.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.3.7.4 Example

```
PIPELINE_ID,SUB_NETWORK_ID,SHIPPER_GBO_ID  
P,1101,SH1  
P,1101,SH2  
P,1102,SH3
```

10.3.8 Substituted User Allocation Instruction (UAI-SUBS)

10.3.8.1 Data flow Definition

The data estimation entity to provide information about substituted user allocation instruction to the user.

10.3.8.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SHIPPER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
SUBS_METHOD	1
ALLOCATION_PRECEDENCE	1
ALLOCATION_TYPE	1
ALLOCATION	1

10.3.8.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

Note: In all cases the severity of each event will be “Error”.

10.3.8.4 Example

USER_GBO_ID,SHIPPER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,SUBS_METHOD,ALLOCATION_PRECEDENCE,ALLOCATION_TYPE,ALLOCATION

USR1, SHP1, 1101, 2003-10-10, D, 1, P, 25
USR1, SHP2, 1101, 2003-10-10, D, 2, P, 30
USR1, SHP3, 1101, 2003-10-10, D, 3, P, 30
USR1, SHP4, 1101, 2003-10-10, D, 4, P, 15
USR1, SHP3, 1103, 2003-10-11, E, 1, P, 50
USR1, SHP4, 1103, 2003-10-11, E, 2, P, 50

10.3.9 User Allocation Instruction Invalid (UAI-INV)

10.3.9.1 Data flow Definition

When the data estimation entity is required to update the shippers register, the data estimation entity must re-validate all users allocation instructions it holds from any day after the effective from date of the change. If during this process any of the assessed user allocation instructions become invalid, the data estimation entity has to notify the user about these circumstances.

10.3.9.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1

10.3.9.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

Note: In all cases the severity of each event will be “Error”.

10.3.9.4 *Example*

```
USER_GBO_ID, SUB_NETWORK_ID, GAS_DAY  
USR1,1101,2003-10-10  
USR1,1101,2003-10-10  
USR1,1101,2003-10-10  
USR1,1101,2003-10-10  
USR1,1103,2003-10-11  
USR1,1103,2003-10-11
```

10.4 Before the Gas Day

10.4.1 Profile (PROF)

10.4.1.1 *Data flow Definition*

The RMA to notify the data estimation entity of changes in profile

10.4.1.2 *Physical Mapping*

The data for this flow must be provided in a Bulk electronic file.

Physical Name	Optionality
PROFILE_HR01	1
PROFILE_HR02	1
PROFILE_HR03	1
PROFILE_HR04	1
PROFILE_HR05	1
PROFILE_HR06	1
PROFILE_HR07	1
PROFILE_HR08	1
PROFILE_HR09	1
PROFILE_HR10	1
PROFILE_HR11	1
PROFILE_HR12	1
PROFILE_HR13	1
PROFILE_HR14	1
PROFILE_HR15	1

Physical Name	Optionality
PROFILE_HR16	1
PROFILE_HR17	1
PROFILE_HR18	1
PROFILE_HR19	1
PROFILE_HR20	1
PROFILE_HR21	1
PROFILE_HR22	1
PROFILE_HR23	1
PROFILE_HR24	1

10.4.1.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.4.1.4 *Example*

PROFILE_HR01, PROFILE_HR02, PROFILE_HR03, PROFILE_HR04, PROFILE_HR05, PROFILE_HR06, PROFILE_HR07, PROFILE_HR08, PROFILE_HR09, PROFILE_HR10, PROFILE_HR11, PROFILE_HR12, PROFILE_HR13, PROFILE_HR14, PROFILE_HR15, PROFILE_HR16, PROFILE_HR17, PROFILE_HR18, PROFILE_HR19, PROFILE_HR20, PROFILE_HR21, PROFILE_HR22, PROFILE_HR23, PROFILE_HR24
 1, 1, 5, 5, 5, 6, 7, 7, 7, 12, 12, 8, 5, 6, 5, 2, 2, 1, 1, 1, 1, 0, 0, 0

10.4.2 Pipeline Profile (PIPPRF)

10.4.2.1 Data flow Definition

The pipeline operator to notify the data estimation entity of the profile that it will use for a pipeline for a sub-network for a gas day.

10.4.2.2 Physical Mapping

The data for this flow must be provided in a automated electronic file.

Physical Name	Optionality
PIPELINE_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
PROFILE_HR01	1
PROFILE_HR02	1
PROFILE_HR03	1
PROFILE_HR04	1
PROFILE_HR05	1
PROFILE_HR06	1
PROFILE_HR07	1
PROFILE_HR08	1
PROFILE_HR09	1
PROFILE_HR10	1
PROFILE_HR11	1
PROFILE_HR12	1
PROFILE_HR13	1
PROFILE_HR14	1

Physical Name	Optionality
PROFILE_HR15	1
PROFILE_HR16	1
PROFILE_HR17	1
PROFILE_HR18	1
PROFILE_HR19	1
PROFILE_HR20	1
PROFILE_HR21	1
PROFILE_HR22	1
PROFILE_HR23	1
PROFILE_HR24	1

10.4.2.3 *Event Codes*

Event Code Number
5200, 5203, 5204, 5406, 5601, 5602

10.4.2.4 *Example*

PIPELINE_ID,SUB_NETWORK_ID,GAS_DAY,PROFILE_HR01,PROFILE_HR02,PROFILE_HR03,PROFILE_HR04,PROFILE_HR05,PROFILE_HR06,PROFILE_HR07,PROFILE_HR08,PROFILE_HR09,PROFILE_HR10,PROFILE_HR11,PROFILE_HR12,PROFILE_HR13,PROFILE_HR14,PROFILE_HR15,PROFILE_HR16,PROFILE_HR17,PROFILE_HR18,PROFILE_HR19,PROFILE_HR20,PROFILE_HR21,PROFILE_HR22,PROFILE_HR23,PROFILE_HR24
 P,1101,2003-10-01,1,1,5,5,5,6,7,7,7,12,12,8,5,6,5,2,2,1,1,1,1,0,0,0
 P,1102,2003-10-01,1,1,5,5,5,7,7,8,7,10,10,8,5,8,5,2,2,1,1,1,1,0,0,0
 P,1103,2003-10-01,1,1,5,5,5,7,7,8,7,10,10,8,5,8,5,2,2,1,1,1,1,0,0,0

10.4.3 Pipeline Ratio (PIPRATIO)

10.4.3.1 Data flow Definition

The data estimation entity to notify the pipeline operator of the ratio that it will use for a pipeline for a sub-network for a gas day.

10.4.3.2 Physical Mapping

The data for this flow must be provided in a automated electronic file.

Physical Name	Optionality
PIPELINE_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
PIPELINE_RATIO	1

10.4.3.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.4.3.4 Example

```
PIPELINE_ID,SUB_NETWORK_ID,GAS_DAY,PIPELINE_RATIO  
P,1101,2003-10-30,0.15  
D,1102,2003-10-30,0.22
```

10.5 Before the gas day - Western Australia

10.5.1 User Pipeline Nomination (UPNA)

10.5.1.1 Data flow Definition

User to notify the data estimation entity of user's pipeline nomination before the start of the gas day which in aggregate will meet the user's expected requirements of gas for the gas day.

10.5.1.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
PIPELINE_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
NOMINATION_AMOUNT	1

10.5.1.3 Event Codes

Event Code Number
5200, 5203, 5204, 5213, 5403, 5601

10.5.1.4 Example

```
USER_GBO_ID,PIPELINE_ID,SUB_NETWORK_ID,GAS_DAY,NOMINATION_AMOUNT  
USR1,P,1101,2003-10-01,2300  
USR1,P,1101,2003-10-01,1500  
USR1,P,1102,2003-10-01,2200
```

USR1,D,1102,2003-10-01,900

10.5.2 Sub-network Profiled Nomination (NPN)

10.5.2.1 Data flow Definition

The data estimation entity to provide the profiled nomination for a sub-network for a gas day which is the nominated amount of gas that is used by the sub-network for the gas day.

10.5.2.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
PROFILED_NOMINATION_HR01	1
PROFILED_NOMINATION_HR02	1
PROFILED_NOMINATION_HR03	1
PROFILED_NOMINATION_HR04	1
PROFILED_NOMINATION_HR05	1
PROFILED_NOMINATION_HR06	1
PROFILED_NOMINATION_HR07	1
PROFILED_NOMINATION_HR08	1
PROFILED_NOMINATION_HR09	1
PROFILED_NOMINATION_HR10	1
PROFILED_NOMINATION_HR11	1
PROFILED_NOMINATION_HR12	1
PROFILED_NOMINATION_HR13	1
PROFILED_NOMINATION_HR14	1
PROFILED_NOMINATION_HR15	1

Physical Name	Optionality
PROFILED_NOMINATION_HR16	1
PROFILED_NOMINATION_HR17	1
PROFILED_NOMINATION_HR18	1
PROFILED_NOMINATION_HR19	1
PROFILED_NOMINATION_HR20	1
PROFILED_NOMINATION_HR21	1
PROFILED_NOMINATION_HR22	1
PROFILED_NOMINATION_HR23	1
PROFILED_NOMINATION_HR24	1

10.5.2.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.5.2.4 *Example*

SUB_NETWORK_ID,GAS_DAY,PROFILED_NOMINATION_HR01,PROFILED_NOMINATION_HR02,PROFILED_NOMINATION_HR03,PROFILED_NOMINATION_HR04,PROFILED_NOMINATION_HR05,PROFILED_NOMINATION_HR06,PROFILED_NOMINATION_HR07,PROFILED_NOMINATION_HR08,PROFILED_NOMINATION_HR09,PROFILED_NOMINATION_HR10,PROFILED_NOMINATION_HR11,PROFILED_NOMINATION_HR12,PROFILED_NOMINATION_HR13,PROFILED_NOMINATION_HR14,PROFILED_NOMINATION_HR15,PROFILED_NOMINATION_HR16,PROFILED_NOMINATION_HR17,PROFILED_NOMINATION_HR18,PROFILED_NOMINATION_HR19,PROFILED_NOMINATION_HR20,PROFILED_NOMINATION_HR21,PROFILED_NOMINATION_HR22,PROFILED_NOMINATION_HR23,PROFILED_NOMINATION_HR24
 1101,2003-10-01,150,150,200,250,250,300,550,550,700,750,1250,1300,1150,1150,1200,1250,750,300,150,150,200,250,250,300
 1102,2003-10-01,150,150,200,250,250,300,550,750,900,1750,2250,2300,1550,1650,1200,1250,750,300,150,150,200,250,150,100
 1103,2003-10-01,150,150,200,250,250,400,550,550,900,950,1250,1300,1150,1150,1200,1250,750,500,500,450,300,250,350,200

10.5.3 Pipeline Profiled Nomination (PPN)

10.5.3.1 Data flow Definition

The data estimation entity to provide the profiled nomination for a pipeline for a gas day which is the nominated amount of gas that is used by the pipeline for the gas day.

10.5.3.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
PIPELINE_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
PROFILED_NOMINATION_HR01	1
PROFILED_NOMINATION_HR02	1
PROFILED_NOMINATION_HR03	1
PROFILED_NOMINATION_HR04	1
PROFILED_NOMINATION_HR05	1
PROFILED_NOMINATION_HR06	1
PROFILED_NOMINATION_HR07	1
PROFILED_NOMINATION_HR08	1
PROFILED_NOMINATION_HR09	1
PROFILED_NOMINATION_HR10	1
PROFILED_NOMINATION_HR11	1
PROFILED_NOMINATION_HR12	1
PROFILED_NOMINATION_HR13	1
PROFILED_NOMINATION_HR14	1

Physical Name	Optionality
PROFILED_NOMINATION_HR15	1
PROFILED_NOMINATION_HR16	1
PROFILED_NOMINATION_HR17	1
PROFILED_NOMINATION_HR18	1
PROFILED_NOMINATION_HR19	1
PROFILED_NOMINATION_HR20	1
PROFILED_NOMINATION_HR21	1
PROFILED_NOMINATION_HR22	1
PROFILED_NOMINATION_HR23	1
PROFILED_NOMINATION_HR24	1

10.5.3.3 Example

PIPELINE_ID,SUB_NETWORK_ID,GAS_DAY,PROFILED_NOMINATION_HR01,PROFILED_NOMINATION_HR02,PROFILED_NOMINATION_HR03,PROFILED_NOMINATION_HR04,PROFILED_NOMINATION_HR05,PROFILED_NOMINATION_HR06,PROFILED_NOMINATION_HR07,PROFILED_NOMINATION_HR08,PROFILED_NOMINATION_HR09,PROFILED_NOMINATION_HR10,PROFILED_NOMINATION_HR11,PROFILED_NOMINATION_HR12,PROFILED_NOMINATION_HR13,PROFILED_NOMINATION_HR14,PROFILED_NOMINATION_HR15,PROFILED_NOMINATION_HR16,PROFILED_NOMINATION_HR17,PROFILED_NOMINATION_HR18,PROFILED_NOMINATION_HR19,PROFILED_NOMINATION_HR20,PROFILED_NOMINATION_HR21,PROFILED_NOMINATION_HR22,PROFILED_NOMINATION_HR23,PROFILED_NOMINATION_HR24
 P,1101,2003-10-01,75,75,100,250,125,150,275,275,350,375,625,650,575,575,600,625,375,150,75,75,100,125,125,150
 P,1102,2003-10-01,75,75,100,250,125,150,275,275,350,375,625,650,575,575,600,625,375,150,75,75,100,125,125,150

10.6 Before the gas day – South Australia

10.6.1 Forecasted unaccounted for gas (FUAFG)

10.6.1.1 Data flow Definition

The network operator is to provide it's forecast of the amount of unaccounted for gas for each supplier of UAFG in the sub-network for the gas day to the data estimation entity.

10.6.1.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
USER_GBO_ID	1
UUAFG	1

10.6.1.3 Event Codes

Event Code Number
5200, 5204, 5213, 5403, 5601

10.6.1.4 Example

```
SUB_NETWORK_ID,GAS_DAY,USER_GBO_ID,UUAFG
1101,2003-10-01,USR1,205
1101,2003-10-01,USR2,130
1101,2003-10-01,USR3,200
1102,2003-10-01,USR1,133
1102,2003-10-01,USR2,133
```

1102, 2003-10-01, USR3, 180
1102, 2003-10-01, USR4, 190

10.6.2 Anticipated User Interval Withdrawal (AUIW)

10.6.2.1 Data flow Definition

User's must notify the data estimation entity of their anticipated interval-metered withdrawals for the gas day.

10.6.2.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
GAS_DAY	1
SUB_NETWORK_ID	1
AUIW	1

10.6.2.3 Event Codes

Event Code Number
5200, 5204, 5213, 5403, 5601

10.6.2.4 Example

```
USER_GBO_ID,GAS_DAY,SUB_NETWORK_ID,AUIW
USR1,2003-10-01,1101,2005
USR1,2003-10-01,1102,5320
USR1,2003-10-01,1103,3900
```

10.6.3 Interval-meter Demand Profile (IMDPROF)

10.6.3.1 *Data flow Definition*

The user to notify the data estimation entity of the interval-meter demand profile which when applied to the interval meter forecasts for the sub-network, user, shipper and pipeline gives the profiled forecast.

10.6.3.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
PROFILE_HR01	1
PROFILE_HR02	1
PROFILE_HR03	1
PROFILE_HR04	1
PROFILE_HR05	1
PROFILE_HR06	1
PROFILE_HR07	1
PROFILE_HR08	1
PROFILE_HR09	1
PROFILE_HR10	1
PROFILE_HR11	1
PROFILE_HR12	1
PROFILE_HR13	1
PROFILE_HR14	1

Physical Name	Optionality
PROFILE_HR15	1
PROFILE_HR16	1
PROFILE_HR17	1
PROFILE_HR18	1
PROFILE_HR19	1
PROFILE_HR20	1
PROFILE_HR21	1
PROFILE_HR22	1
PROFILE_HR23	1
PROFILE_HR24	1

10.6.3.3 *Event Codes*

Event Code Number
5200, 5204, 5213, 5406, 5601, 5602

10.6.3.4 *Example*

```

USER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,PROFILE_HR01,PROFILE_HR02,PROFILE_HR03,PROFILE_HR04,PROFILE_HR05,PR
OFILE_HR06,PROFILE_HR07,PROFILE_HR08,PROFILE_HR09,PROFILE_HR10,PROFILE_HR11,PROFILE_HR12,PROFILE_HR13,
PROFILE_HR14,PROFILE_HR15,PROFILE_HR16,PROFILE_HR17,PROFILE_HR18,PROFILE_HR19,PROFILE_HR20,PROFILE_HR2
1,PROFILE_HR22,PROFILE_HR23,PROFILE_HR24
USR1,1101,2003-10-01,1,1,5,5,5,6,7,7,7,12,12,8,5,6,5,2,2,1,1,1,1,0,0,0
USR1,1102,2003-10-01,1,1,5,5,5,7,7,8,7,10,10,8,5,8,5,2,2,1,1,1,1,0,0,0
USR1,1103,2003-10-01,1,1,5,5,5,7,7,8,7,10,10,8,5,8,5,2,2,1,1,1,1,0,0,0
  
```

10.6.4 Sub-network Profiled Forecast (NPF)

10.6.4.1 Data flow Definition

The data estimation entity to provide the profiled forecast for the sub-network which is the forecasted amount of gas used by the sub-network for the gas day.

10.6.4.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
PROFILE_FORECAST_HR01	1
PROFILE_FORECAST_HR02	1
PROFILE_FORECAST_HR03	1
PROFILE_FORECAST_HR04	1
PROFILE_FORECAST_HR05	1
PROFILE_FORECAST_HR06	1
PROFILE_FORECAST_HR07	1
PROFILE_FORECAST_HR08	1
PROFILE_FORECAST_HR09	1
PROFILE_FORECAST_HR10	1
PROFILE_FORECAST_HR11	1
PROFILE_FORECAST_HR12	1
PROFILE_FORECAST_HR13	1
PROFILE_FORECAST_HR14	1
PROFILE_FORECAST_HR15	1

Physical Name	Optionality
PROFILE_FORECAST_HR16	1
PROFILE_FORECAST_HR17	1
PROFILE_FORECAST_HR18	1
PROFILE_FORECAST_HR19	1
PROFILE_FORECAST_HR20	1
PROFILE_FORECAST_HR21	1
PROFILE_FORECAST_HR22	1
PROFILE_FORECAST_HR23	1
PROFILE_FORECAST_HR24	1

10.6.4.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.6.4.4 *Example*

SUB_NETWORK_ID,GAS_DAY,PROFILE_FORECAST_HR01,PROFILE_FORECAST_HR02,PROFILE_FORECAST_HR03,PROFILE_FORECAST_HR04,PROFILE_FORECAST_HR05,PROFILE_FORECAST_HR06,PROFILE_FORECAST_HR07,PROFILE_FORECAST_HR08,PROFILE_FORECAST_HR09,PROFILE_FORECAST_HR10,PROFILE_FORECAST_HR11,PROFILE_FORECAST_HR12,PROFILE_FORECAST_HR13,PROFILE_FORECAST_HR14,PROFILE_FORECAST_HR15,PROFILE_FORECAST_HR16,PROFILE_FORECAST_HR17,PROFILE_FORECAST_HR18,PROFILE_FORECAST_HR19,PROFILE_FORECAST_HR20,PROFILE_FORECAST_HR21,PROFILE_FORECAST_HR22,PROFILE_FORECAST_HR23,PROFILE_FORECAST_HR24
 1101,2003-10-
 01,150,150,200,250,250,300,550,550,700,750,1250,1300,1150,1150,1200,1250,750,300,150,150,200,250,250,300
 1102,2003-10-
 01,150,150,200,250,250,300,550,750,900,1750,2250,2300,1550,1650,1200,1250,750,300,150,150,200,250,150,100
 1103,2003-10-
 01,150,150,200,250,250,400,550,550,900,950,1250,1300,1150,1150,1200,1250,750,500,500,450,300,250,350,200

10.6.5 User Profile Forecast (UPF)

10.6.5.1 Data flow Definition

The data estimation entity to provide to the user the user's profile forecast and the components used to calculate the user's profile forecast which are the user's basic-meter profile forecast, the user's interval-meter profile forecast, the user's reconciliation profile forecast, the user's swing profile forecast, and the user's unaccounted for gas profile forecast.

10.6.5.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
USER_PROFILE_TYPE	1
PROFILE_FORECAST_HR01	1
PROFILE_FORECAST_HR02	1
PROFILE_FORECAST_HR03	1
PROFILE_FORECAST_HR04	1
PROFILE_FORECAST_HR05	1
PROFILE_FORECAST_HR06	1
PROFILE_FORECAST_HR07	1
PROFILE_FORECAST_HR08	1
PROFILE_FORECAST_HR09	1
PROFILE_FORECAST_HR10	1
PROFILE_FORECAST_HR11	1
PROFILE_FORECAST_HR12	1

10.6.5.3 *Event Codes*

10.6.5.4 Example

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10.6.6 Participant Profile Forecast (PPF)

10.6.6.1 Data flow Definition

The data estimation entity to provide the profile forecast for the user, shipper and pipeline to the relevant participant which is the participant's expected amount of gas for the gas day.

10.6.6.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
PARTICIPANT_GBO_ID	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
GAS_DAY	1
PROFILE_FORECAST_HR01	1
PROFILE_FORECAST_HR02	1
PROFILE_FORECAST_HR03	1
PROFILE_FORECAST_HR04	1
PROFILE_FORECAST_HR05	1
PROFILE_FORECAST_HR06	1
PROFILE_FORECAST_HR07	1
PROFILE_FORECAST_HR08	1
PROFILE_FORECAST_HR09	1
PROFILE_FORECAST_HR10	1
PROFILE_FORECAST_HR11	1
PROFILE_FORECAST_HR12	1
PROFILE_FORECAST_HR13	1

Physical Name	Optionality
PROFILE_FORECAST_HR14	1
PROFILE_FORECAST_HR15	1
PROFILE_FORECAST_HR16	1
PROFILE_FORECAST_HR17	1
PROFILE_FORECAST_HR18	1
PROFILE_FORECAST_HR19	1
PROFILE_FORECAST_HR20	1
PROFILE_FORECAST_HR21	1
PROFILE_FORECAST_HR22	1
PROFILE_FORECAST_HR23	1
PROFILE_FORECAST_HR24	1

10.6.6.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.6.6.4 *Example*

PARTICIPANT_GBO_ID,SUB_NETWORK_ID,PIPELINE_ID,GAS_DAY,PROFILE_FORECAST_HR01,PROFILE_FORECAST_HR02,PROFILE_FORECAST_HR03,PROFILE_FORECAST_HR04,PROFILE_FORECAST_HR05,PROFILE_FORECAST_HR06,PROFILE_FORECAST_HR07,PROFILE_FORECAST_HR08,PROFILE_FORECAST_HR09,PROFILE_FORECAST_HR10,PROFILE_FORECAST_HR11,PROFILE_FORECAST_HR12,PROFILE_FORECAST_HR13,PROFILE_FORECAST_HR14,PROFILE_FORECAST_HR15,PROFILE_FORECAST_HR16,PROFILE_FORECAST_HR17,PROFILE_FORECAST_HR18,PROFILE_FORECAST_HR19,PROFILE_FORECAST_HR20,PROFILE_FORECAST_HR21,PROFILE_FORECAST_HR22,PROFILE_FORECAST_HR23,PROFILE_FORECAST_HR24
 SHP1,1101,P,2003-10-01,1000,1000,1000,1000,1000,1000,1000,1000,1000,1000,1000,1000,1000,1000,
 1000,1000,1000,1000,1000,1000,1000,1000,1000,1000,1000,1000,1000

10.6.7 Heating Degree Day (HDD)

The data estimation entity is to notify participants of the calculated heating degree day for each HDD zone in the sub-network for the gas day.

This flow is used to notify participants about both the forecasted as well as the actual HDD value. Based on the timestamp of the flow, it can be derived, if the value was produced before the gas day, during the gas day or after the gas day.

10.6.7.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
HDD_VALUE	1

10.6.7.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.6.7.4 *Example*

```
SUB_NETWORK_ID,GAS_DAY, HDD_VALUE  
2101,2003-12-02,15  
2102,2003-12-02,27  
2103,2003-12-02,33  
2104,2003-12-02,38
```

10.7 During the gas day

10.7.1 Gate Point Energy and Profile (GPENGPROF)

10.7.1.1 Data flow Definition

The *data estimation entity* to provide gate point energy and sub-network profile to the *user* for each *sub-network* in which they operate.

10.7.1.2 Physical Mapping

The data for this flow must be provided in an *automated electronic file*.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
ENERGY_INFLOW_HR01	1
ENERGY_INFLOW_HR02	0-1
ENERGY_INFLOW_HR03	0-1
ENERGY_INFLOW_HR04	0-1
ENERGY_INFLOW_HR05	0-1
ENERGY_INFLOW_HR06	0-1
ENERGY_INFLOW_HR07	0-1
ENERGY_INFLOW_HR08	0-1
ENERGY_INFLOW_HR09	0-1
ENERGY_INFLOW_HR10	0-1
ENERGY_INFLOW_HR11	0-1
ENERGY_INFLOW_HR12	0-1
ENERGY_INFLOW_HR13	0-1

Physical Name	Optionality
ENERGY_INFLOW_HR14	0-1
ENERGY_INFLOW_HR15	0-1
ENERGY_INFLOW_HR16	0-1
ENERGY_INFLOW_HR17	0-1
ENERGY_INFLOW_HR18	0-1
ENERGY_INFLOW_HR19	0-1
ENERGY_INFLOW_HR20	0-1
ENERGY_INFLOW_HR21	0-1
ENERGY_INFLOW_HR22	0-1
ENERGY_INFLOW_HR23	0-1
ENERGY_INFLOW_HR24	0-1
PROFILED_NOMINATION_HR01	1
PROFILED_NOMINATION_HR02	1
PROFILED_NOMINATION_HR03	1
PROFILED_NOMINATION_HR04	1
PROFILED_NOMINATION_HR05	1
PROFILED_NOMINATION_HR06	1
PROFILED_NOMINATION_HR07	1
PROFILED_NOMINATION_HR08	1
PROFILED_NOMINATION_HR09	1
PROFILED_NOMINATION_HR10	1
PROFILED_NOMINATION_HR11	1
PROFILED_NOMINATION_HR12	1
PROFILED_NOMINATION_HR13	1
PROFILED_NOMINATION_HR14	1

Physical Name	Optionality
PROFILED_NOMINATION_HR15	1
PROFILED_NOMINATION_HR16	1
PROFILED_NOMINATION_HR17	1
PROFILED_NOMINATION_HR18	1
PROFILED_NOMINATION_HR19	1
PROFILED_NOMINATION_HR20	1
PROFILED_NOMINATION_HR21	1
PROFILED_NOMINATION_HR22	1
PROFILED_NOMINATION_HR23	1
PROFILED_NOMINATION_HR24	1

10.7.1.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.7.1.4 *Example*

SUB_NETWORK_ID,GAS_DAY,ENERGY_INFLOW_HR01,ENERGY_INFLOW_HR02,ENERGY_INFLOW_HR03,ENERGY_INFLOW_HR04,ENERGY_INFLOW_HR05,ENERGY_INFLOW_HR06,ENERGY_INFLOW_HR07,ENERGY_INFLOW_HR08,ENERGY_INFLOW_HR09,ENERGY_INFLOW_HR10,ENERGY_INFLOW_HR11,ENERGY_INFLOW_HR12,ENERGY_INFLOW_HR13,ENERGY_INFLOW_HR14,ENERGY_INFLOW_HR15,ENERGY_INFLOW_HR16,ENERGY_INFLOW_HR17,ENERGY_INFLOW_HR18,ENERGY_INFLOW_HR19,ENERGY_INFLOW_HR20,ENERGY_INFLOW_HR21,ENERGY_INFLOW_HR22,ENERGY_INFLOW_HR23,ENERGY_INFLOW_HR24,PROFILED_NOMINATION_HR01,PROFILED_NOMINATION_HR02,PROFILED_NOMINATION_HR03,PROFILED_NOMINATION_HR04,PROFILED_NOMINATION_HR05,PROFILED_NOMINATION_HR06,PROFILED_NOMINATION_HR07,PROFILED_NOMINATION_HR08,PROFILED_NOMINATION_HR09,PROFILED_NOMINATION_HR10,PROFILED_NOMINATION_HR11,PROFILED_NOMINATION_HR12,PROFILED_NOMINATION_HR13,PROFILED_NOMINATION_HR14,PROFILED_NOMINATION_HR15,PROFILED_NOMINATION_HR16,PROFILED_NOMINATION_HR17,PROFILED_NOMINATION_HR18,PROFILED_NOMINATION_HR19,PROFILED_NOMINATION_HR20,PROFILED_NOMINATION_HR21,PROFILED_NOMINATION_HR22,PROFILED_NOMINATION_HR23,PROFILED_NOMINATION_HR24

```
SUBNET1,2003-10-01,100,100,150,500,500,750,1000,1000,1000,1000,1000,1000,  
1000,1000,1000,1000,1000,1000,1000,,,,,100,200,200,200,500,500,500,500,1500,1500,1500,1500,  
1500,1500,1500,1500,500,500,500,500,300,300,200,200  
SUBNET2,2003-10-01,100,100,150,500,500,750,1000,1000,1000,1000,1000,1000,  
1000,1000,1000,1000,1000,1000,1000,,,,,100,200,200,200,500,500,500,500,1500,1500,1500,1500,  
1500,1500,1500,1500,500,500,500,500,300,300,200,200
```

10.8 During the gas day – South Australia Only

10.8.1 Estimated Consumption Amount (ECA)

10.8.1.1 Data flow Definition

The *data estimation entity* to provide the *user's* hourly estimated consumption amount to the user for each *sub-network*.

10.8.1.2 Physical Mapping

The data for this flow must be provided in an *automated electronic file*.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
ESTIMATED_CONSUMPTION_AMOUNT_HR01	1
ESTIMATED_CONSUMPTION_AMOUNT_HR02	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR03	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR04	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR05	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR06	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR07	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR08	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR09	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR10	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR11	0-1
ESTIMATED_CONSUMPTION_AMOUNT_HR12	0-1

10.8.1.3 *Event Codes*

10.8.1.4 Example

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Field Code Changed

10.9 Reconciliation

10.9.1 User's Unaccounted For Gas (UUAFG)

10.9.1.1 Data flow Definition

10.9.1.2 The network operator to notify the data estimation entity of the estimated UAFG for user's. Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
PARTICIPANT_GBO_ID	1
UUAFG	1

10.9.1.3 Event Codes

Event Code Number
5200, 5204, 5213, 5403, 5601

10.9.1.4 Example

SUB_NETWORK_ID, GAS_DAY, PARTICIPANT_GBO_ID, UUAFG
1101, 2003-10-30, USR1, 150
1101, 2003-10-30, USR2, 300
1101, 2003-10-30, USR3, 100
1101, 2003-10-30, USR4, 220

10.9.2 User's Revised Unaccounted For Gas (RUAFG)

10.9.2.1 Data flow Definition

The data estimation entity to notify the relevant network operator of the revised UAFG for user's.

10.9.2.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
PARTICIPANT_GBO_ID	1
UUAFG	1

10.9.2.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.2.4 Example

```
SUB_NETWORK_ID,GAS_DAY,PARTICIPANT_GBO_ID,UUAFG
1101,2003-10-30,USR5,125
1101,2003-10-30,USR6,100
1102,2003-10-30,USR2,125
```

10.9.3 Actual Unaccounted For Gas (AUAFG)

10.9.3.1 Data flow Definition

The data estimation entity is to notify the network operator and each user who is a supplier of UAFG for the sub-network of the calculated actual UAFG in the sub-network for each gas day in the historical period.

10.9.3.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
HISTORICAL_DAY	1
AUAFG	1

10.9.3.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.3.4 Example¹

SUB_NETWORK_ID,GAS_DAY,HISTORICAL_DAY,AUAFG

¹ It should be noted that, following approval of the ICD changes associated with C18/05S (CCN63) an inconsistency was identified in the example above which could be misleading. The AUAFG flow is generated each gas day and represents historical data for the 425 days prior to the current gas day. As

```
1101,2004-01-01,2004-01-01,750
1101,2004-01-01,2003-12-31,980
1101,2004-01-01,2003-12-30,1020
1101,2004-08-14,2003-12-29,725
...
1102,2004-08-14,2004-01-01,950
1102,2004-08-14,2003-12-31,920
1102,2004-11-21,2003-12-30,825
1102,2004-11-21,2003-12-29,870
1102,2004-11-21,2003-12-28,1350
```

such, the example should show a consistent value in the GAS_DAY field for each sub network. The example will be replaced in the next iteration of the ICD by the following:

```
SUB_NETWORK_ID,GAS_DAY,HISTORICAL_DAY,AUAFG
1101,2006-01-01,2006-01-01,750
1101,2006-01-01,2005-12-31,980
1101,2006-01-01,2005-12-30,1020
1101,2006-01-01,2005-12-29,725
...
1101,2006-01-01,2004-11-03,725
1102,2006-01-01,2006-01-01,950
1102,2006-01-01,2005-12-31,920
1102,2006-01-01,2005-12-30,825
1102,2006-01-01,2005-12-29,870
1102,2006-01-01,2005-12-28,1350
```

10.9.4 User's Total Estimated Withdrawal (UETW) (SA ONLY)

10.9.4.1 *Data flow Definition*

With the introduction of the STTM, the fields URAA and SSRA will always contain 0. In addition, the field for User Estimated Basic Withdrawals (UEBW) will be replaced by User Distributed Basic Withdrawals (UDBW) and User's Unaccounted For Gas (UUAFG) has been replaced by User's Actual Unaccounted For Gas (UAUAFG) (see clause 228 of the SA Retail Market Procedures for further details).

The data estimation entity to notify participants about user's estimated total withdrawal.

This flows is used to notify participants about the estimated energy values for the gas day shortly after the end of the gas day. The information is provided on sub-network level and provides the base for the initial settlement of the gas day.

10.9.4.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
UETW	1
UIW	1
UDBW	1
UAUAFG	1
URAA	1
SSAR	1

10.9.4.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.4.4 *Example*

```
USER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,UETW,UIW,UDBW,UAUAFG,URAA,SSAR  
USR1,1101,2003-10-30,2200,700,1300,100,0,0  
USR1,1102,2003-10-30,2500,800,1500,150,0,0
```

10.9.5 User's Total Estimated Withdrawal (UETW) (WA ONLY)

10.9.5.1 *Data flow Definition*

The data estimation entity to notify participants about user's estimated total withdrawal.

This flow is used to notify participants about the estimated energy values for the gas day shortly after the end of the gas day. The information is provided on sub-network level and provides the base for the initial settlement of the gas day.

The flow includes the SSAR value which in the BS is described as the sum of SRQ being repaid by the user on the gas day. The SRQ values for the user and each swing service provider were initially provided after the end of the gas day when the swing service was created. Because this UETW message is providing the data on the sub-network level there is no need for provision of each SRQ values.

The SSAR should be under normal circumstances zero. This is because the ~~rule~~Procedures are designed that the swing service amounts for the user should be always in equal and opposite amount on the two pipelines for the sub-network.

10.9.5.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
UETW	1
UIW	1
UEBW	1
UUAFG	1
URAA	1
SSAR	1

10.9.5.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.5.4 *Example*

USER_GBO_ID, SUB_NETWORK_ID, GAS_DAY, UETW, UIW, UEBW, UUAFG, URAA, SSAR
USR1, 1101, 2003-10-30, 2200, 700, 1300, 100, 75, 75
USR1, 1102, 2003-10-30, 2500, 800, 1500, 150, 75, 75

10.9.6 User's Total Reconciliation Amount (TRA)

10.9.6.1 *Data flow Definition*

With the introduction of the STTM in the SA Market the fields TRA, TBRA, TIRA, TBWRA, UUAFGRA, TMRA, URAA, UUAFGRAA will always contain 0.

The data estimation entity to notify the user and network operator about user's reconciliation information.

10.9.6.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
TRA	1
TBRA	1
TIRA	1
TBWRA	1
UUAFGRA	1
TMRA	1
URAA	1
UUAFGRAA	1

10.9.6.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.6.4 *Example*

USER_GBO_ID, SUB_NETWORK_ID, GAS_DAY, TRA, TBRA, TIRA, TBWRA, UUAFGRA, TMRA, URAA
USR1, 1101, 2003-10-30, 250, 210, 25, 43, 10, 5, 236, 23
USR1, 1101, 2003-10-30, 180, 150, 25, 23, 5, 0, 191, 0

10.9.7 Normalisation factor and net system load (NORM-NSL)

10.9.7.1 Data flow Definition

The data estimation entity is to notify users and network operators of the calculated normalisation factor and NSL for each sub-network for the previous 425 days, that is for the historical period for calculations.

Two additional fields provide participants with more visibility of mass market profiles

10.9.7.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
HISTORICAL_DAY	1
NORMALISATION_FACTOR	1
NSL	1
TOTAL_EW_CUSTOMERS	1
USER_EW_CUSTOMERS	1

10.9.7.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.7.4 Example

SUB_NETWORK_ID,GAS_DAY,HISTORICAL_DAY,NORMALISATION_FACTOR,NSL, TOTAL CUSTOMERS, USER_CUSTOMERS
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1101,2004-12-01,2004-01-01,0.92,23460, 4000, 1000
1101,2004-12-01,2004-01-02,0.93,22600, 4000, 1000
1101,2004-12-01,2004-01-03,0.92,23500, 4000, 1000
1101,2004-12-01,2004-01-04,0.94,24090, 4000, 1000
1101,2004-12-01,2004-01-05,0.95,23700, 4000, 1000
1101,2004-12-01,2004-01-06,0.95,23870, 4000, 1000
1101,2004-12-01,2004-01-07,0.94,23800, 4000, 1000
1101,2004-12-01,2004-01-08,0.95,24100, 4000, 1000
1101,2004-12-01,2004-02-26,0.96,24760, 4000, 1000
1101,2004-12-01,2004-02-27,0.94,24690, 4000, 1000
1101,2004-12-01,2004-02-28,0.96,24780, 4000, 1000
1101,2004-12-01,2004-03-01,0.97,24890, 4000, 1000

10.9.8 User Historical Gas Day Reconciliation Amount (UHRA)

10.9.8.1 Data flow Definition

With the introduction of the STTM in the SA Market the fields DELTA_SBRA, DELTA_BWRA, UDURA will always contain 0.

The data estimation entity must notify the user of their basic-metered reconciliation amounts and unaccounted for gas reconciliation amount for the previous 425 days, that is for the historical period for calculations.

10.9.8.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
HISTORICAL_DAY	1
DELTA_SBRA	1
DELTA_BWRA	1
UDURA	1

10.9.8.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.8.4 *Example*

```
USER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,HISTORICAL_DAY,DELTA_SBRA,DELTA_BWRA,UDURA
USR1,1101,2004-12-01,2004-01-01,150,110,0
USR1,1101,2004-12-01,2004-01-02,170,120,0
USR1,1101,2004-12-01,2004-01-03,250,210,0
USR1,1101,2004-12-01,2004-01-04,250,210,0
USR1,1101,2004-12-01,2004-01-05,250,210,0
USR1,1101,2004-12-01,2004-01-06,250,210,0
USR1,1101,2004-12-01,2004-01-07,270,220,10
USR1,1101,2004-12-01,2004-01-08,300,200,10
...
USR1,1101,2004-12-01,2004-02-26,1700,1600,30
USR1,1101,2004-12-01,2004-02-27,2020,1400,45
USR1,1101,2004-12-01,2004-02-28,1800,1500,51
USR1,1101,2004-12-01,2004-03-01,2400,2100,50
```

10.9.9 Miscellaneous Reconciliation Amount (MRA-NOTF)

10.9.9.1 *Data flow Definition*

With the introduction of the STTM in the SA Market the field MRA will always contain 0.

The RMA is to notify the data estimation entity of any miscellaneous reconciliation amount it determines applies to a user or sub-network for a gas day.

10.9.9.2 *Physical Mapping*

The data for this flow must be provided in an *notice*.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
MRA	1

10.9.10 User's total deemed withdrawal (UDW)

10.9.10.1 Data flow Definition

The data estimation entity to notify user's of their deemed withdrawal.

10.9.10.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
GAS_DAY	1
USER_DEEMED_WITHDRAWAL	1

10.9.10.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.10.4 Example

```
USER_GBO_ID,SUB_NETWORK_ID,PIPELINE_ID,GAS_DAY,USER_DEEMED_WITHDRAWAL  
USR1,1101,P,2003-10-30,450  
USR1,1103,D,2003-10-30,212  
USR1,1105,P,2003-10-30,400  
USR1,1106,P,2003-10-30,1500
```


USR1,1106,D,2003-10-30,3217
USR1,1107,P,2003-10-30,152
USR1,1107,D,2003-10-30,8975

10.9.11 Deemed Injections (DI) (WA Only)

10.9.11.1 Data flow Definition

The data estimation entity to notify shippers and swing service providers of their deemed injections

10.9.11.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
PARTICIPANT_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
USER_GBO_ID	1
DEEMED_INJECTION	1

10.9.11.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.11.4 Example

```
PARTICIPANT_GBO_ID,SUB_NETWORK_ID,GAS_DAY,USER_GBO_ID,DEEMED_INJECTION  
SHP1,1101,2003-10-30,USER1,10440  
SSP1,1102,2003-10-30,USER2,14220
```

10.9.12 Deemed Injections (DI_HST) (SA Only)

10.9.12.1 Data flow Definition

The data estimation entity to notify shippers on non-STTM network sections of their deemed injections on a monthly basis.

10.9.12.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
PARTICIPANT_GBO_ID	1
SUB_NETWORK_ID	1
HISTORICAL_DAY	1
USER_GBO_ID	1
DEEMED_INJECTION	1

10.9.12.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.12.4 Example

GAS_DAY,PARTICIPANT_GBO_ID,SUB_NETWORK_ID,HISTORICAL_DAY,USER_GBO_ID,DEEMED_INJECTION
2003-10-30,SHP1,2104,2003-10-30,USER1,10440
2003-10-30,SHP1,2104,2003-10-29,USER1,10220

10.9.13 User's hourly sub-network apportionment (UHSA)

10.9.13.1 Data flow Definition

The data estimation entity to notify user's of their hourly sub-network apportionment which is the user's hourly withdrawal from the sub-network less the swing service repayment quantity.

10.9.13.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
HOURLY_APPORTIONMENT_HR01	1
HOURLY_APPORTIONMENT_HR02	1
HOURLY_APPORTIONMENT_HR03	1
HOURLY_APPORTIONMENT_HR04	1
HOURLY_APPORTIONMENT_HR05	1
HOURLY_APPORTIONMENT_HR06	1
HOURLY_APPORTIONMENT_HR07	1
HOURLY_APPORTIONMENT_HR08	1
HOURLY_APPORTIONMENT_HR09	1
HOURLY_APPORTIONMENT_HR10	1
HOURLY_APPORTIONMENT_HR11	1
HOURLY_APPORTIONMENT_HR12	1
HOURLY_APPORTIONMENT_HR13	1
HOURLY_APPORTIONMENT_HR14	1

Physical Name	Optionality
HOURLY_APPORTIONMENT_HR15	1
HOURLY_APPORTIONMENT_HR16	1
HOURLY_APPORTIONMENT_HR17	1
HOURLY_APPORTIONMENT_HR18	1
HOURLY_APPORTIONMENT_HR19	1
HOURLY_APPORTIONMENT_HR20	1
HOURLY_APPORTIONMENT_HR21	1
HOURLY_APPORTIONMENT_HR22	1
HOURLY_APPORTIONMENT_HR23	1
HOURLY_APPORTIONMENT_HR24	1

10.9.13.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.13.4 *Example*

USER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,HOURLY_APPORTIONMENT_HR01,HOURLY_APPORTIONMENT_HR02,HOURLY_APPORTIONMENT_HR03,
 HOURLY_APPORTIONMENT_HR04,HOURLY_APPORTIONMENT_HR05,HOURLY_APPORTIONMENT_HR06,HOURLY_APPORTIONMENT_HR07,HOURLY_AP
 PORTIONMENT_HR08,HOURLY_APPORTIONMENT_HR09,HOURLY_APPORTIONMENT_HR10,HOURLY_APPORTIONMENT_HR11,HOURLY_APPORTIONME
 NT_HR12,HOURLY_APPORTIONMENT_HR13,HOURLY_APPORTIONMENT_HR14,HOURLY_APPORTIONMENT_HR15,HOURLY_APPORTIONMENT_HR16,H
 OURLY_APPORTIONMENT_HR17,HOURLY_APPORTIONMENT_HR18,HOURLY_APPORTIONMENT_HR19,HOURLY_APPORTIONMENT_HR20,HOURLY_APP
 ORTIONMENT_HR21,HOURLY_APPORTIONMENT_HR22,HOURLY_APPORTIONMENT_HR23,HOURLY_APPORTIONMENT_HR24
 USR1,1101,2003-10-01,75,75,75,75,75,75,150,150,150,300,300,350,400,350,300,300,150,150, 75,75,75,75,75,75
 USR1,1102,2003-10-01,75,75,75,75,75,75,150,150,150,300,300,350,400,350,300,300,150,150, 75,75,75,75,75,75

10.9.14 Shipper's hourly gate point apportionment (SHGA)

10.9.14.1 Data flow Definition

The data estimation entity to notify shipper's of their hourly gate point apportionment which is the shipper's hourly deemed injection into the sub-network.

10.9.14.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SHIPPER_GBO_ID	1
SUB_NETWORK_ID	1
GAS_DAY	1
HOURLY_APPORTIONMENT_HR01	1
HOURLY_APPORTIONMENT_HR02	1
HOURLY_APPORTIONMENT_HR03	1
HOURLY_APPORTIONMENT_HR04	1
HOURLY_APPORTIONMENT_HR05	1
HOURLY_APPORTIONMENT_HR06	1
HOURLY_APPORTIONMENT_HR07	1
HOURLY_APPORTIONMENT_HR08	1
HOURLY_APPORTIONMENT_HR09	1
HOURLY_APPORTIONMENT_HR10	1
HOURLY_APPORTIONMENT_HR11	1
HOURLY_APPORTIONMENT_HR12	1
HOURLY_APPORTIONMENT_HR13	1
HOURLY_APPORTIONMENT_HR14	1

Physical Name	Optionality
HOURLY_APPORTIONMENT_HR15	1
HOURLY_APPORTIONMENT_HR16	1
HOURLY_APPORTIONMENT_HR17	1
HOURLY_APPORTIONMENT_HR18	1
HOURLY_APPORTIONMENT_HR19	1
HOURLY_APPORTIONMENT_HR20	1
HOURLY_APPORTIONMENT_HR21	1
HOURLY_APPORTIONMENT_HR22	1
HOURLY_APPORTIONMENT_HR23	1
HOURLY_APPORTIONMENT_HR24	1

10.9.14.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.14.4 *Example*

SHIPPER_GBO_ID,SUB_NETWORK_ID,GAS_DAY,HOURLY_APPORTIONMENT_HR01,HOURLY_APPORTIONMENT_HR02,HOURLY_APPORTIONMENT_HR03,HOURLY_APPORTIONMENT_HR04,HOURLY_APPORTIONMENT_HR05,HOURLY_APPORTIONMENT_HR06,HOURLY_APPORTIONMENT_HR07,HOURLY_APPORTIONMENT_HR08,HOURLY_APPORTIONMENT_HR09,HOURLY_APPORTIONMENT_HR10,HOURLY_APPORTIONMENT_HR11,HOURLY_APPORTIONMENT_HR12,HOURLY_APPORTIONMENT_HR13,HOURLY_APPORTIONMENT_HR14,HOURLY_APPORTIONMENT_HR15,HOURLY_APPORTIONMENT_HR16,HOURLY_APPORTIONMENT_HR17,HOURLY_APPORTIONMENT_HR18,HOURLY_APPORTIONMENT_HR19,HOURLY_APPORTIONMENT_HR20,HOURLY_APPORTIONMENT_HR21,HOURLY_APPORTIONMENT_HR22,HOURLY_APPORTIONMENT_HR23,HOURLY_APPORTIONMENT_HR24
 SSP1,1101,2003-10-01,75,75,75,75,75,75,150,150,150,300,300,350,400,350,300,300,150,150,75,75,75,75,175
 SSP1,1102,2003-10-01,75,75,75,75,75,150,150,1500,300,300,350,400,350,300,300,150,1500,750,750,750,750,750,750

10.9.15 Gate point reconciliation adjustment amount (GAA)

10.9.15.1 Data flow Definition

With the introduction of the STTM in the SA Market the field GAA will always contain 0.

The data estimation entity to notify the pipeline operator, network operator and user about gate point reconciliation information for the gas day.

10.9.15.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GATE_POINT_ID	1
GAS_DAY	1
TPI	1
GAA	1

10.9.15.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.15.4 Example

GATE_POINT_ID,GAS_DAY,TPI,GAA
1101D,2003-10-30,250,236
1102D,2003-10-30,580,291

10.9.16 Historical gate point data (PCI-HST)

10.9.16.1 Data flow Definition

With the introduction of the STTM in the SA Market the field GAA will always contain 0.

The data estimation entity to notify participants about the historical injections and adjustment amount for gate points.

10.9.16.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
GATE_POINT_ID	1
HISTORICAL_DAY	1
PI	1
GAA	1
PCI	1

10.9.16.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.16.4 Example

GAS_DAY,GATE_POINT_ID,HISTORICAL_DAY,PI,GAA,PCI
2003-10-30,1101D,2003-10-30,250150,10,250160

2003-10-30,1101D,2003-10-29,250,0,250
2003-10-30,1101D,2003-10-28,23350,-10,23340

10.9.17 Historical user withdrawal data (UETW-HST) (SA ONLY)

With the introduction of the STTM, the fields URAA and SSRA will always contain 0. In addition, the field for User Estimated Basic Withdrawals (UEBW) will be replaced by User Distributed Basic Withdrawals (UDBW) and User's Unaccounted For Gas (UUAFG) has been replaced by User's Actual Unaccounted For Gas (UAUAFG). (see clause 228 of the SA Retail Market

Procedures for further details). User's Basic Withdrawals (UBW) is replaced by User's Distributed Basic Withdrawals (UDBW) (see clause 227B of the SA Retail Market Procedures for further details).

10.9.17.1 *Data flow Definition*

The data estimation entity to notify participants about the historical user withdrawal data for sub-network.

10.9.17.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
USER_GBO_ID	1
SUB_NETWORK_ID	1
HISTORICAL_DAY	1
UETW	1
UIW	1
UEBW	1
UAUAFG	1
URAA	1
SSAR	1
UDBW	1

Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.17.3 *Example*

```
GAS_DAY,USER_GBO_ID,SUB_NETWORK_ID,HISTORICAL_DAY,UETW,UIW,UEBW,UUAUAFG,URAA,SSAR,UDBW  
2003-10-30,USR1,1101,2003-10-30,2100,700,1300,100,75,0,1050  
2003-10-30,USR1,1101,2003-10-29,1900,700,1000,100,100,0,1000
```

10.9.18 Historical user withdrawal data (UETW-HST) (WA ONLY)

10.9.18.1 *Data flow Definition*

The data estimation entity to notify participants about the historical user withdrawal data for sub-network.

10.9.18.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
USER_GBO_ID	1
SUB_NETWORK_ID	1
HISTORICAL_DAY	1
UETW	1
UIW	1
UEBW	1
UUAFG	1
URAA	1
SSAR	1
UBW	1

10.9.18.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.9.18.4 *Example*

GAS_DAY,USER_GBO_ID,SUB_NETWORK_ID,HISTORICAL_DAY,UETW,UIW,UEBW,UUAFG,URAA,SSAR,UBW
2003-10-30,USR1,1101,2003-10-30,2100,700,1300,100,75,0,1050
2003-10-30,USR1,1101,2003-10-29,1900,700,1000,100,100,0,1000

10.10 Swing Service (WA only)

10.10.1 User off-market swing service procurement instruction (OMP-USR)

10.10.1.1 *Data flow Definition*

The user notifies the data estimation entity regarding off-market procurements no later than 30 min before start of gas day.

10.10.1.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
SSP_ID	1
SWING_GAS_QUANTITY	1
SWING_TYPE	1
BID_PRIORITY	1
SSP_R_ID	1
ALLOCATION	1

10.10.1.3 *Event Codes*

Event Code Number
5200, 5202, 5203, 5204, 5205, 5206, 5207, 5213, 5215, 5216, 5220, 5403, 5601

10.10.1.4 *Example*

USER_GBO_ID,GAS_DAY,SUB_NETWORK_ID,PIPELINE_ID,SSP_ID,SWING_GAS_QUANTITY,SWING_TYPE,BID_PRIORITY,SSP_R_ID,ALLOCATION
 USR1,2004-01-01,1106,P,SSP1,10,L,1,SSP2,10
 USR1,2004-01-01,1106,P,SSP1,10,L,1,SSP3,90
 USR1,2004-01-01,1106,D,SSP5,4,L,2,SSP6,100
 USR1,2004-01-01,1106,D,SSP6,133,L,3,SSP5,100
 USR1,2004-01-01,1107,P,SSP13,10,P,1,SSP1,100

10.10.1.5 ***GRMS validation procedure***

The header of the csv file defines the columns.

Each line in the flow represents a user allocation request of repayment of an off-market trade.

All allocation requests in the message are grouped in two levels.

First by

- USER_GBO_ID
- SUB_NETWORK_ID
- PIPELINE_ID
- GAS_DAY
- SWING_TYPE
- PRIORITY
- SSP_ID
- SWING_GAS_QUANTITY

This group represents a user's off-market trade request as per the ~~rule~~[Procedures](#).

In second place the requests gets grouped by

- GAS_DAY
- USER_GBO_ID
- PIPELINE_ID
- SUB_NETWORK_ID
- SWING_TYPE

This group creates a user's off-market trade instruction as per the ~~rule~~[Procedures](#).

When the file gets processed all the data are validated as follows:

The user allocation instruction (the secondary group) is validated that:

- the GAS_DAY column is valid
- the USER_GBO_ID column is valid
- the USER_GBO_ID is the sender of the message
- the PIPELINE_ID is valid
- the SUB_NETWORK_ID is valid
- the SWING_TYPE is valid
- the timeline for providing the information is validated

Then each of the user allocation requests (the first group) is validated separately against the following additional criteria:

- the SSP_ID is valid
- the SWING_GAS_QUANTITY is valid
- the PRIORITY is valid (positive number)
- the swing service provider is validated against swing service provider register.
- Each of the allocation requests for the off-market trade request is valid (as per below)
- And that the total percentage of the allocation requests is equal to 100%

The allocation requests (lines in the flow) are validated against the following additional criteria:

- the SSP_R_ID is valid
- ALLOCATION value is valid
- the repaying swing service provider is validated against the swing service provider register

If the whole user off market instruction or any of the user off market requests or allocation requests don't comply with the above specified criteria the user off-market trade instruction (for the user, the gas day, the sub-network, the pipeline and the swing type) is rejected with appropriate event code.

If GRMS already holds a previously accepted off-market trade user instruction then this will be replaced with the new instruction if the new instruction is valid and accepted.

Refer to the BS for more details

10.10.1.6 *Processes*

The user off-market trade instruction is used in the following GRMS processes:

- The matching and validation of off-market trade instruction with the off-market trade confirmations
- Applying off-market traded during the swing gas calculation

Refer to the BS for mode details

10.10.1.6.1 Matching of off-market trades

Before the gas day the user off-market trade instruction supplied by users is evaluated against the off-market confirmation provided by swing service providers. The off-market requests are aggregated by the gas day, sub-network, pipeline, swing service type and swing service provider (supplying the trade). This amount is then compared with the amount supplied by the appropriate swing service provider for the user and the same combination of the gas day, sub-network, pipeline, swing type.

If the amount "confirmed" by the swing service provider is equal or larger then the total amount "requested" by the user from the swing service provider, then for each of the user's requests for the swing service provider a matched swing service trade is generated.

If the amount "confirmed" by the swing service provider is less then the total amount "requested" by the user from the swing service provider, then none of the user's requests will be matched (approved).

EXAMPLE:

A USR1 submits a OMP-USR CSV that contains a number of rows for SSP1 (ROW 1, ROW 2, ROW 3) one for SSP2 (ROW 4) and two rows for SSP3 (ROW 5, ROW 6).

SSP2 fails to submit a OMP-SSP for USR1, but SSP2 and SSP3 submits correct confirmations.

GRMS evaluates the user's USR1 instruction. The evaluation shows, that the SSP1 didn't confirm the quantity for the user USR1 therefore all trades submitted by the USR1 for the SSP1 will not be matched, the not matched rows are going to be ROW1, ROW2, ROW3.

The evaluation shows that the user USR1 requests for the SSP2 and SSP3 are confirmed therefore the rows ROW4, 5, 6 are going to be matched.

The result of this is that the users position for the day trading is the trades on rows 4,5,6.

The OMP-STATUS will contain only those requests that were matched (approved).

The OMP-USR will be rejected only immediately after submission and user will know about the reason why the OMP-USR was rejected because the user will receive an transaction acknowledgement with the event code = reason why it was rejected.

The only reason why a request previously submitted by a user doesn't appear in the OMP-STATUS (is not matched approved) is that the total quantity requested from the SSP was not confirmed by the SSP.

When a SSP submits a confirmation, but user doesn't, then the SSP is not going to receive any line in the OMP-STATUS report for the user.

10.10.1.6.2 Applying of off-market trades

After the end of the gas day, during the swing gas calculation, the matched user requests are applied against the user swing service quantity. The requests are applied in order from lowest number to highest number till all of the requests are fully exhausted or till there is no amount of the user swing service left.

It is suggested that the PRIORITY is a unique number across the user off-market trade instruction. If there is duplicate priority the GRMS doesn't guarantee the order in which the trade instruction will be applied during the matching process.

Where a user submits a OMP-USR CSV containing duplicate Priorities (for example: row 1 has a PRIORITY of 1 and so does row 2) then the GRMS has no mechanism to determine the order in which the off market trades should to be applied. In these

circumstances the GRMS cannot guarantee that the off market trades will be applied in an order that the user may have expected. It is the responsibility of Market Participants (ie users) to supply an OMP-USR CSV file with correctly assigned priorities to ensure that their off market trades are applied in the right order.

10.10.1.6.3 Applying of off-market trades example

A USR1 submits a OMP-USR CSV that contains a number of rows for SSP1 (ROW 1, ROW 2, ROW 3) one for SSP2 (ROW 4) and two rows for SSP3 (ROW 5, ROW 6).

SSP2 fails to submit a OMP-SSP for USR1, but SSP2 and SSP3 submits correct confirmations.

GRMS evaluates the user's USR1 instruction. The evaluation shows, that the SSP1 didn't confirm the quantity for the user USR1 therefore all trades submitted by the USR1 for the SSP1 will not be matched, the not matched rows are going to be ROW1, ROW2, ROW3.

The evaluation shows that the user USR1 requests for the SSP2 and SSP3 are confirmed therefore the rows ROW4, 5, 6 are going to be matched.

The result of this is that the users position for the day trading is the trades on rows 4,5,6.

The OMP-STATUS will contain only those requests that were matched (approved).

The OMP-USR will be rejected only immediately after submission and user will know about the reason why the OMP-USR was rejected because the user will receive an transaction acknowledgement with the event code = reason why it was rejected.

The only reason why a request previously submitted by a user doesn't appear in the OMP-STATUS (is not matched approved) is that the total quantity requested from the SSP was not confirmed by the SSP.

When a SSP submits a confirmation, but user doesn't, then the SSP is not going to receive any line in the OMP-STATUS report for the user.

10.10.2 Swing Service Provider off-market service procurement (OMP-SSP) (WA only)

10.10.2.1 Data flow Definition

The Swing Gas Provider notifies the data estimation entity regarding off-market procurements no later than 30 min before start of gas day.

10.10.2.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SSP_ID	1
GAS_DAY	1
USER_GBO_ID	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
SWING_GAS_QUANTITY	1
SWING_TYPE	1

10.10.2.3 Event Codes

Event Code Number
5200, 5202, 5203, 5204, 5205, 5206, 5213, 5215, 5216, 5403, 5601

Note: In all cases the severity of each event will be “Error”.

10.10.2.4 Example

SSP_ID,GAS_DAY,USER_GBO_ID,SUB_NETWORK_ID,PIPELINE_ID,SWING_GAS_QUANTITY,SWING_TYPE
 SSP1,2004-01-01,USR1,1106,D,10,P
 SSP1,2004-01-01,USR1,1106,D,54,P

SSP1,2004-01-01,USR2,1106,P,6,P
SSP1,2004-01-01,USR2,1106,P,5533,L
SSP1,2004-01-01,USR1,1107,D,443,L
SSP1,2004-01-01,USR2,1107,D,78,P
SSP1,2004-01-01,USR2,1107,P,24,L
SSP1,2004-01-01,USR2,1107,P,45,L

10.10.3 Swing Service Provider off-market service procurement surplus instruction (OMP-SURPLUS) (WA only)

10.10.3.1 Data flow Definition

10.10.3.2 *The Swing Gas Provider notifies the data estimation entity regarding surplus instruction of off-market procurements no later than 30 min before start of gas day. Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SSP_ID	1
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
SWING_TYPE	1
ALLOCATION_PRECEDENCE	1
ALLOCATION_TYPE	1
ALLOCATION	1
PRICE	1

10.10.3.3 Event Codes

Event Code Number
5200, 5202, 5203, 5204, 5205, 5206, 5207, 5208, 5215, 5216, 5217, 5607, 5221, 5224, 5403, 5601

Note: In all cases the severity of each event will be “Error”.

10.10.3.4 Example

SSP_ID, GAS_DAY, SUB_NETWORK_ID, PIPELINE_ID, SWING_TYPE, ALLOCATION_PRECEDENCE, ALLOCATION_TYPE, ALLOCATION, PRICE

SSP1,2004-01-01,1101,D,L,1,P,90,10.23
SSP1,2004-01-01,1101,D,L,2,P,10,44
SSP1,2004-01-01,1101,D,P,3,P,100,54.454
SSP1,2004-01-01,1102,D,L,1,P,100,5533.333
SSP1,2004-01-01,1102,D,P,2,P,60,78.22
SSP1,2004-01-01,1102,D,P,3,P,40,24.78
SSP1,2004-01-02,1102,D,L,1,P,20,6.22
SSP1,2004-01-02,1102,D,L,2,P,80,45.621

10.10.3.5 *GRMS validation procedure*

The header of the csv file defines the columns.

Each line in the flow represents a swing service provider surplus request.

All requests in the message are grouped by.

First by

- SSP_ID
- SUB_NETWORK_ID
- PIPELINE_ID
- GAS_DAY
- SWING_TYPE

This group represents a swing service provider's off-market surplus instruction as per the [ruleProcedures](#).

When the file gets processed all the data are validated as follows:

The swing service provider surplus instruction is validated that:

- the GAS_DAY column is valid
- the SSP_ID column is valid
- the SSP_ID is the sender of the message

- the PIPELINE_ID is valid
- the SUB_NETWORK_ID is valid
- the SWING_TYPE is valid
- the swing service provider is validated against swing service provider register.
- the timeline for providing the information is validated
- the requests are validated as described below
- the sum of the percentages is not more than 100%

Then each of the surplus requests (lines in the flow) is validated separately against the following additional criteria:

- ALLOCATION_PRECEDENCE is valid
- ALLOCATION TYPE is Percentage
- ALLOCATION is valid percentage
- The bid price is valid

If the swing service provider's surplus instruction or any the surplus requests doesn't comply with the above specified criteria the swing service provider surplus instruction (for the gas day, the sub-network, the pipeline and the swing type) is rejected with appropriate event code.

If GRMS already registers a last previously accepted the swing service provider's surplus instruction then this will be replaced with the new instruction if the new instruction is valid and accepted.

If the new instruction is not valid and rejected then the original registered instruction will remain current.

Refer to the BS for mode details

10.10.3.6 *Processes*

The swing service provider's surplus instruction is used in the following GRMS processes:

- Applying the swing service providers residual of the off-market trades to the swing service bid-stack.

Refer to the BS for mode details

10.10.3.6.1 Applying the surplus into the bid stack

After the end of the gas day, when all the off-market trading is derived and applied, the residual of the trades is derived for each of the swing service provider for the gas day, sub-network, pipeline and type of swing service. The residual is derived as the difference between the total amount of submitted confirmations by the swing service provider and the total amount of the applied trades on behalf of this swing service provider.

The residual is apportioned to a number of new bids using the percentage supplied by the swing service provider in the surplus instruction. For each new bid applied into the bid-stack the price nominated by the swing service provider in the surplus instruction is used.

It is suggested that the PRIORITY is a unique number across the swing service provider surplus instruction. If there is duplicate priority the GRMS doesn't guarantee the order in which the quantity instruction will be applied during the process. Currently the priority is not used as only percentage allocation types are accepted. It is foreseen in the future the market will require Quantity allocation and therefore the priority will be used to set the order in which the quantity instructions will be applied.

10.10.4 Off-market service procurement instruction Status (OMP-STATUS) (WA only)

10.10.4.1 Data flow Definition

The data estimation entity is to provide a status report of all matching user and swing service provider off-market procurement instructions..

10.10.4.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
USER_GBO_ID	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
SSP_ID	1
SWING_GAS_QUANTITY	1
SWING_TYPE	1

10.10.4.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.4.4 Example

GAS_DAY,USER_GBO_ID,SUB_NETWORK_ID,PIPELINE_ID,SSP_ID,SWING_GAS_QUANTITY,SWING_TYPE
 2004-01-01,USR1,1101,D,SSP1,10,P
 2004-01-01,USR1,1102,D,SSP5,443,L
 2004-01-01,USR1,1101,D,SSP8,54,P

2004-01-01,USR2,1101,D,SSP4,5533,L
2004-01-01,USR2,1101,G,SSP1,78,P
2004-01-01,USR2,1102,G,SSP3,24,L
2004-01-01,USR2,1101,D,SSP2,6,P
2004-01-01,USR2,1103,D,SSP1,45,L

10.10.5 Applied Off-market service procurement (OMP-APP) (WA only)

10.10.5.1 Data flow Definition

The data estimation entity is to provide a report of all applied off-market procurement instructions, **applied requests**.

The data for this flow will contain a row for each of the off-market trade and quantity of the request that has been applied. For example, if there are 2 or more deals with the same SSP for the same gas day then there should be a row for each for the 2 trades such as 5,000 GJ and 750 GJ instead of 5,750 GJ.

10.10.5.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
USER_GBO_ID	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
SSP_ID	1
SWING_GAS_QUANTITY	1
SWING_TYPE	1

10.10.5.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.5.4 *Example*

```
GAS_DAY,USER_GBO_ID,SUB_NETWORK_ID,PIPELINE_ID,SSP_ID,SWING_GAS_QUANTITY,SWING_TYPE
2004-01-01,USR1,1101,D,SSP1,10,P
2004-01-01,USR1,1102,D,SSP5,443,L
2004-01-01,USR1,1101,D,SSP8,54,P
2004-01-01,USR2,1101,D,SSP4,5533,L
2004-01-01,USR2,1102,D,SSP1,78,P
2004-01-01,USR2,1102,D,SSP3,24,L
2004-01-01,USR2,1101,D,SSP2,6,P
2004-01-01,USR2,1103,D,SSP1,45,L
```

10.10.6 Swing Service Bids (BID-SSP) (WA only)

10.10.6.1 Data flow Definition

Swing Service Providers will supply swing service bids to the data estimation entity.

10.10.6.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SSP_ID	1
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
BID_PRICE	1
SWING_GAS_QUANTITY	1
SWING_TYPE	1

10.10.6.3 Event Codes

Event Code Number
5200, 5202, 5203, 5204, 5205, 5206, 5215, 5216, 5224, 5403, 5601

Note: In all cases the severity of each event will be “Error”.

10.10.6.4 Examples

SSP_ID,GAS_DAY,SUB_NETWORK_ID,PIPELINE_ID,BID_PRICE,SWING_GAS_QUANTITY,SWING_TYPE
SSP1,2004-01-01,1101,P,1.233,50,P
SSP1,2004-01-01,1101,P,55,443,L
SSP1,2004-01-01,1101,P,1,500,P

SSP1,2004-01-01,1101,P,566,334,L
SSP1,2004-01-01,1101,P,12,22,P
SSP1,2004-01-01,1101,P,43.24,7845,L
SSP1,2004-01-01,1102,P,542.22,6,P
SSP1,2004-01-01,1103,P,5235,45,L



Field Code Changed

10.10.7 Bid Stack Publication (BID-PUB) (WA only)

10.10.7.1 Data flow Definition

The data estimation entity will make available the bid stack for each pipeline for each sub-network on each gas day.

10.10.7.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
SWING_TYPE	1
BID_PRICE	1
SWING_GAS_QUANTITY	1

10.10.7.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.7.4 Example

```
GAS_DAY,SUB_NETWORK_ID,PIPELINE_ID,SWING_TYPE,BID_PRICE,SWING_GAS_QUANTITY
2004-01-01,1102,D,L,443,12
2004-01-01,1101,D,P,8.22,31
2004-01-01,1102,D,P,10.233,68
2004-01-01,1101,D,L,0.553,112
```

2004-01-01, 1101, G, P, 0.23, 664

10.10.8 Marginal Clearing Price for the total Amount of Swing Service (MCP-TSS) (WA only)

10.10.8.1 Data flow Definition

The data estimation entity must inform the users and swing service providers of the marginal clearing price for the total amount of swing service to be procured from each bid stack.

10.10.8.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
MCP_TSS	1

10.10.8.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.8.4 Example

```
GAS_DAY,SUB_NETWORK_ID,PIPELINE_ID,MCP_TSS
2004-01-01,1101,D,4.154
2004-01-01,1101,G,234.2
2004-01-01,1102,D,443
2004-01-01,1102,G,0.8
```

10.10.9 Marginal Clearing Price for the total adjusted non-user-specific amounts of Swing Service (MCP-TANUSA) (WA only)

10.10.9.1 Data flow Definition

The data estimation entity must inform the users and swing service providers of the marginal clearing price for the total adjusted non-user-specific amounts of swing service to be procured from each bid stack.

10.10.9.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
MCP_TANUSA	1

10.10.9.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.9.4 Example

```
GAS_DAY,SUB_NETWORK_ID,PIPELINE_ID,MCP_TANUSA
2004-01-01,1102,D,56.555
2004-01-01,1101,D,31.1
2004-01-01,1101,G,12
```

10.10.10 Notification of Swing Service Allocation through the Bid Stack (BID-ALLOC) (WA only)

10.10.10.1 Data flow Definition

The data estimation entity is to notify the swing service providers and users of allocations made under the bid stack.

10.10.10.2 Physical Mapping

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
SSP_ID	1
USER_GBO_ID	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
FSS	1
SWING_TYPE	1
SWING_GAS_QUANTITY	1
GAS_DAY	1

10.10.10.3 Event Codes

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.10.4 Example

SSP_ID,USER_GBO_ID,SUB_NETWORK_ID,PIPELINE_ID,FSS,SWING_TYPE,SWING_GAS_QUANTITY,GAS_DAY
SSP2,USR6,1106,P,12030,L,214,2004-01-01

SSP2,USR5,1106,P,1344,L,25,2004-01-01
SSP3,USR5,1106,G,280,P,17,2004-01-01
SSP2,USR1,1106,G,6500,P,100,2004-01-01

10.10.11 Swing service (SS) (WA only)

10.10.11.1 *Data flow Definition*

The data estimation entity to notify the participants of the swing service for a pipeline.

10.10.11.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
SS	1
PCI	1
UDW_TOTAL	1
ABS_UETW_TOTAL	1
TUSA	1
TUNUSA	1
TAUSA	1
TANUSA	1
TSS	1
MCP_TSS	1
MCP_TANUSA	1

10.10.11.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.11.4 *Example*

GAS_DAY, SUB_NETWORK_ID, PIPELINE_ID, SS, PCI, UDW_TOTAL, ABS_UETW_TOTAL, TUSA, TUNUSA, TAUSA, TANUSA, TSS, MCP_TSS, MCP_TANUS
A
2004-01-01, 1106, D, 10, 100, 90, 150, 5, 5, 0, 0, 0, 0, 0
2004-01-01, 1106, G, -10, 50, 60, 150, -7, -3, -2, 0, -2, 0.5, 0

10.10.12 User's swing service (USS) (WA only)

10.10.12.1 *Data flow Definition*

The data estimation entity to notify the user of their swing service information.

10.10.12.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
USER_GBO_ID	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
USS	1
PUSA	1
NUSA	1
USA	1
ANUSA	1
AUSA	1

10.10.12.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.12.4 *Example*

```
GAS_DAY,USER_GBO_ID,SUB_NETWORK_ID,PIPELINE_ID,USS,PUSA,NUSA,USA,ANUSA,AUSA  
2004-01-01,USR1,1106,D,50,0,13,3,63,24  
2004-01-01,USR1,1106,P,-50,0,-15,-5,-35,-53  
2004-01-01,USR1,1107,P,15,0,0,3,5,72  
2004-01-01,USR1,1107,D,-15,0,-5,-10,-5,-2
```

10.10.12.5 *Notes*

10.10.13 Swing Service Repayment Quantity (SRQ) (WA only)

10.10.13.1 *Data flow Definition*

On a gas day the data estimation entity is to provide the Swing Service Repayment Quantity to the user.

10.10.13.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
USER_GBO_ID	1
SUB_NETWORK_ID	1
SWING_GAS_QUANTITY	1
SSP_ID	1

10.10.13.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.13.4 *Example*

```
GAS_DAY,USER_GBO_ID,SUB_NETWORK_ID,SWING_GAS_QUANTITY,SSP_ID
2004-01-01,USR1,1106,5,SSP1
2004-01-01,USR1,1106,11,SSP2
2004-01-01,USR1,1106,-2,SSP1
2004-01-01,USR1,1106,-14,SSP4
2004-01-01,USR1,1107,15,SSP5
2004-01-01,USR1,1107,-30,SSP2
```

2004-01-01,USR1,1107,15,SSP1

10.10.14 Monthly Interval-Meter Load Percentage Report (MILP)

10.10.14.1 *Data flow Definition*

Within 7 days after the end of each month the data estimation entity must notify users of its MILP.

10.10.14.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
USER_GBO_ID	1
SUB_NETWORK_ID	1
EFFECTIVE_DATE	1
MILP	1

10.10.14.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.14.4 *Example*

```
USER_GBO_ID,SUB_NETWORK_ID,EFFECTIVE_DATE,MILP
USR1,2101,2004-09-05,10,10
USR1,2102,2004-09-05,55,2
USR1,2103,2004-09-05,85,37
```

10.10.15 Deemed Gas Quantity (DGQ)

10.10.15.1 *Data flow Definition*

Within 5 hours after the end of the gas day the data estimation entity must notify participants about the multi shipper allocation report data.

10.10.15.2 *Physical Mapping*

The data for this flow must be provided in an automated electronic file.

Physical Name	Optionality
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	1
PARTICIPANT_GBO_ID	1
ENERGY	1

10.10.15.3 *Event Codes*

Event Code Number
There are no event codes as the flow is outgoing flow.

10.10.15.4 *Example*

```
GAS_DAY,SUB_NETWORK_ID,PIPELINE_ID,PARTICIPANT_GBO_ID,ENERGY
2004-09-05,1101,P,SSP1,10
2004-09-05,1102,D,SHP1,2
2004-09-05,1103,P,SSP2,37
```

10.11 Temporary suspension of BAR calculations

10.11.1 Request of Suspension of BAR calculations (CALC-REQUEST)

10.11.1.1 *Data flow Definition*

Upon notification from network operator or pipeline operator Market Operator can request suspension of the BAR calculations.

10.11.1.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
AFFECTED_GAS_DAY	1
SUSPENSION_DATETIME	1
SUSPENSION_REASON	1

10.12 BAR Recalculation

10.12.1 Request to Recalculate (RECALC-REQUEST)

10.12.1.1 Data flow Definition

Upon receiving this notification from Market Operator, GRMS must recalculate the BAR for the affected gas day and every gas day that has passed since.

10.12.1.2 Physical Mapping

The data for this flow must be provided in a notice.

Physical Name	Optionality
AFFECTED_GAS_DAY	1
RECALC_REASON	1

10.12.2 Swing Service Over Threshold and Calculated With Estimated GPMD (SS-OVERTHRES) (SA ONLY). Will not be operable in the STTM as there is no Swing Service.

10.12.2.1 Data flow Definition

This notice is sent out from GRMS to Market Operator when the Swing Service is over the threshold (2TJ) in SA and has been calculated with estimated GPMD data as indicated by READ_TYPE_FLAG (see section 9.3.5).

Required Data:

SUBJECT FIELD: Swing Service Exceeds Threshold for GAS_DAY

CONTENTS: NETWORK_ID, GAS_DAY, SS_VALUE, EST_GBO_ID

10.12.2.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
NETWORK_ID	1
GAS_DAY	1
SS_VALUE	1
EST_GBO_ID	1

10.12.3 **Difference between Estimated and Actual GPMD Values Exceeds Threshold (GPMD-DIFFOVER) (SA ONLY). Will not be operable in the STTM as there is no Swing Service.**

10.12.4

10.12.4.1 *Data flow Definition*

This notice is sent out from GRMS to Market Operator when the difference between the Estimate and Actual GPMD values exceeds the threshold (2TJ). In the case where this has happened for multiple days, a separate notice is sent each time.

Required Data:

SUBJECT FIELD: Difference Between Estimate and Actual Exceeds Threshold on GAS_DAY

CONTENTS: GATEPOINT_ID, GAS_DAY, DIFF_VALUE

10.12.4.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
GATEPOINT_ID	1

Physical Name	Optionality
GAS_DAY	1
DIFF_VALUE	1

10.13 Short Term Trading Market (STTM)

10.13.1 STTM Distribution System Allocation Data (STTM-DSA)

10.13.1.1 *Data flow Definition*

Weekly and montly data reports with the same frequency as the reporting of weekly, preliminary, final and revised STTM distribution system allocation data to the STTM.

10.13.1.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
SUB_NETWORK_ID	1
GAS_DAY	1
USER_GBO_ID	1
UETW	1
UIW	1
UDBW	1
UAUAFG	1

Physical Name	Optionality
USER_STTM_DSA	1
SETTLEMENT_RUN_ID	1

Note: the SETTLEMENT_RUN_ID field uses different text values to distinguish between the different types of STTM-DSA reports. For example, the SETTLEMENT_RUN_ID for weekly reports is “NAU”, for monthly preliminary reports it is “NAP”, for monthly final reports it is “NAF”, and for revised reports it is “NAR”.

10.14 Miscellaneous

10.14.1 General Notification (GEN-NOTIFY)

10.14.1.1 *Data flow Definition*

This mechanism of general notifications can be used by GRMS to notify market participants about occurrence of special events eg. suspension or resumption of market calculations.

10.14.1.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
FROM_GBO_ID	1
TO_GBO_ID	1
NOTIFY_CODE	1
NOTIFY_KEY_INFO	1
NOTIFY_DESCRIPTION	1

10.14.2 Request Estimate Usage in Market Calculation Report (GPMD-ESTREPREQ)

10.14.2.1 *Data flow Definition*

This notice is sent out from Market Operator to GRMS in order to request a report on the usage of Estimated GPMD data (either provided by the Network Operator or generated by Market Operator) within the SA Market Calculations.

Required Data:

SUBJECT FIELD: Request for GPMD Estimate Usage Report

CONTENTS: GATEPOINT_ID, FROM_GAS_DAY, TO_GAS_DAY

10.14.2.2 *Physical Mapping*

The data for this flow must be provided in a notice.

Physical Name	Optionality
GATEPOINT_ID	1
FROM_GAS_DAY	1
TO_GAS_DAY	1

10.14.3 Estimate Usage in Market Calculation Report (GPMD-ESTREPORT)

10.14.3.1 *Data flow Definition*

This report is to be generated by GRMS and provided to Market Operator as a result of a GPMD-ESTREPREQ. The report will only contain information regarding days where estimated values were used in the market. It should be sent as an email attachment.

10.14.3.2 *Physical Mapping*

The data for this flow must be provided in a report.

Physical Name	Optionality
GAS_DAY	1
GATEPOINT_ID	1
EST_GBO_ID	1
EST_VALUE	1
EST_RECEIPT_DATETIME	1

Physical Name	Optionality
ACT_VALUE	1
ACT_RECEIPT_DATETIME	1
ORIGINAL_SS	1
RECALCULATED_DATE	0-1
NEW_SS	0-1
NO_GPMF_FILES_RECIEVED	1

10.14.4 Start of Alternative Settlement Period Notification (SASP-NOTIFY) (WA only)

10.14.4.1 10.13.4.1 Data flow Definition

This notice is sent out from Market Operator to GRMS in order to declare the start of the alternative settlement period and request the “asp data” to be generated and delivered from the defined GAS_DAY to appointed Independent Reviewer or Independent Expert in the event of gas emergency.

Required Data:

SUBJECT FIELD: Start of Alternative Settlement Period Notification

CONTENTS: GAS_DAY

10.14.4.2 10.13.4.2 Physical Mapping

The data for this flow must be provided in a notice.

Physical Name	Optionality
GAS_DAY	1

10.14.5 End of Alternative Settlement Period Notification (EASP-NOTIFY) (WA only)

10.14.5.1 10.13.5.1 Data flow Definition

This notice is sent out from Market Operator to GRMS in order to declare the end of the alternative settlement period and request the “asp data” to be generated and delivered to appointed Independent Reviewer or Independent Expert up to the GAS_DAY included in this notification.

Required Data:

SUBJECT FIELD: End of Alternative Settlement Period Notification

CONTENTS: GAS_DAY

10.14.5.2 10.13.5.2 Physical Mapping

The data for this flow must be provided in a notice.

Physical Name	Optionality
GAS_DAY	1

10.14.6 ASPDATA Report (ASPDATA)

10.14.6.1 10.13.6.1 Data flow Definition

This report is to be generated by GRMS and provided to appointed Independent Reviewer or Independent Expert as a result of a SASP-NOTIFY. The report will only contain information for one gas day (report day -3). It should be sent as an email attachment.

10.14.6.2 10.13.6.2 Physical Mapping

The data for this flow must be provided in a report.

Physical Name	Optionality
GAS_DAY	1
SUB_NETWORK_ID	1
PIPELINE_ID	0-1
SHIPPER_GBO_ID	0-1
USER_GBO_ID	0-1
ASPD_TYPE	1
ALLOCATION_TYPE	0-1
VALUE	1

Appendix A CSV DATA DICTIONARY

Data types which are used only within aseXML formatted files are not defined in this data dictionary, as a definition is contained within the aseXML schema and a description of the usage of that data type is given within the relevant ‘Physical Transaction’ sections of this document.

A.1 Datatypes used in Both aseXML and CSV Formatted Files and in Notices

AseXML Element Name	CSV Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
Checksum	MIRN_CHECKSUM	The MIRN Checksum	NUM	1	0	NA	NA		
EffectiveFromDate	EFFECTIVE_DATE	Effective from date	DATE	10	NA	NA	NA		yyyy-mm-dd
HeatingValueZone	HV_ZONE	Encoding of sub-network and heating value zone (Identified as CC and D and defined in RMR appendix 1). This forms part of the gas zone code	CHAR	3	NA	NA	NA		
InitiatingRequestID	INITIATING_REQUEST_ID	The unique ID allocated by the Market Operator AEMO to a Registry Transaction	NUM	10	NA	NA	NA		999999999
MIRNStatus	MIRN_STATUS “Registered” = a service inlet has been installed at the delivery point “Commissioned”=Commissioned and not decommissioned or permanently removed (including after the delivery point has been reconnected) “Decommissioned”= disconnected (temporary) “Deregistered”= Permanently Removed	The MIRN Status	CHAR	16	NA	NA	NA	Registered Commissioned Decommissioned Deregistered	
N/A (in Notice)	NOTIFY_DESCRIPTION	Textual description as to why GRMS operations (allocation, reconciliation and swing service) have sent this message	CHAR	N/A	N/A	N/A	N/A		

AseXML Element Name	CSV Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
N/A (in Notice)	NOTIFY_KEY_INFO	Textual field that contains the key information for the notification. In case of suspension it can be the affected gas day.	CHAR	N/A	N/A	N/A	N/A		
NMI	MIRN	MIRN – Unique identification of a delivery point	CHAR	10	NA	NA	NA		
TransmissionZone	TRANSMISSION_ZONE	The encoding of network operator and licence areas (Identified as A and B and defined in RMR appendix 1). This forms part of the gas zone code	NUM	2	0	N	-		
N/A (in CSV payload)	BASE_LOAD	Base level of consumption for a delivery point	NUM	9	1	Y	MJ		
BaseLoad	NON_TEMP_SENSITIVE_BASELOAD	The average daily energy consumption unaffected by temperature	NUM	9	1	N	MJ		
N/A (in CSV payload)	HEATING_RATE	Temperature sensitive consumption	NUM	9	2	Y	MJ		
N/A (in Notice)	FROM_GBO_ID	GBO_ID of provider of the information	CHAR	10	N/A	N/A	N/A		
TemperatureSensitivityFactor	TEMP_SENSITIVE_HEATING_RATE	The rate at which energy consumption varies with changes to heating degree day.	NUM	9	2	N	NA		
N/A (in CSV payload)	TYPE_OF_READ	Type of a meter read	CHAR	1	NA	NA	NA	E-Estimated A-Actual S-Substituted D-Deemed	
N/A (in Notice)	TO_GBO_ID	GBO_ID of receiver of the information	CHAR	10	N/A	N/A	N/A		
N/A (in CSV Payload)	GAS_DAY	The gas day	DATE	N/A	N/A	N/A	N/A		
N/A (in CSV Payload)	GATEPOINT_ID	The ID of the gatepoint	CHAR	5	N/A	N/A	N/A		
N/A (in CSV Payload)	EST_GBO_ID	GBO_ID of estimated GPMD values	CHAR	10	N/A	N/A	N/A		
N/A (in CSV Payload)	EST_VALUE	Estimated value for that gatepoint on that gas day	NUM	9	2	N	MJ		

AseXML Element Name	CSV Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
N/A (in CSV Payload)	EST_RECEIPT_DATETIME	Time the EST_VAL was received	DATE	N/A	N/A	N/A	N/A		
N/A (in CSV Payload)	ACT_VALUE	Most recent actual value for that gatepoint on that gas day	NUM	9	2	N	MJ		
N/A (in CSV Payload)	ACT_RECEIPT_DATETIME	Time ACT_VALUE was received	DATE	N/A	N/A	N/A	N/A		
N/A (in CSV Payload)	ORIGINAL_SS	Swing Service value originally generated on the gas day	NUM	9	2	Y	TJ		
N/A (in CSV Payload)	RECALCULATED_DATE	Day Swing Service was recalculated	DATE	N/A	N/A	N/A	N/A	Date if recalculated, NULL if not	
N/A (in CSV Payload)	NEW_SS	Most recent swing service value generated for that day	NUM	9	2	Y	TJ	NULL if not recalculated	
N/A (in CSV Payload)	NUM_GPMD_FILES_RECIEVED	Number of GPMD files received for that Gas Day	NUM	2	0	N	N/A		
N/A (In Notice)	NETWORK_ID	Network ID of the section with high swing service	NUM	4	0	N	N/A		
N/A (In Notice)	DIFF_VALUE	Difference between ACT_VALUE and EST_VALUE	NUM	9	2	Y	TJ		
N/A (In Notice)	AFFECTED_GAS_DAY	Gas day affected by notice	DATE	N/A	N/A	N/A	N/A		
N/A (In Notice)	RECALC_REASON	Textual description as to why GRMS is to perform recalculation	CHAR	N/A	N/A	N/A	N/A		
N/A (In Notice)	SUSPENSION_DATETIME	Time that GRMS is to suspect calculations	DATE	N/A	N/A	N/A	N/A		
N/A (In Notice)	SUSPENSION_REASON	Textual description as to why GRMS is to suspend calculations	CHAR	N/A	N/A	N/A	N/A		
N/A (in CSV Payload)	FROM_GAS_DAY	The first gas day to be included in the period covered	DATE	N/A	N/A	N/A	N/A		
N/A (in CSV Payload)	TO_GAS_DAY	The final gas day to be included in the period covered	DATE	N/A	N/A	N/A	N/A		

A.2 CSV Datatypes used in CSV Formatted Files Only

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
ALLOCATION	Shipper's portion of the user's total estimated daily consumption.	NUM	10	0	N	MJ/%		
ALLOCATION_TYPE	Type of the allocation in an allocation instruction	CHAR	1	NA	NA	NA	Q-Quantity P-Percentage	
ALLOCATION_PRECEDENCE	Precedence for use of information	NUM	2	0	N	NA		
ANUSA	The user's adjusted non-user-specific amount of swing service for the pipeline for the sub-network for the gas day	NUM	10	0	Y	MJ		
AUAFG	Actual unaccounted for gas	NUM	10	0	Y	MJ		
AUIW	Anticipated interval-metered withdrawals	NUM	10	0	Y	MJ		
AUSA	The user's adjusted user-specific amount of swing service for the pipeline for the sub-network for the gas day.	NUM	10	0	Y	MJ		
BASE_LOAD	Non Temperature Sensitive Base Load The average daily energy consumption unaffected by temperature	NUM	10					
BID_PRICE	Price of bid	NUM	11	3	N	Cents / MJ		
BID_PRIORITY	A priority defined by the user in regards to off-market procurements.	NUM	2	0	N	NA		
COMMISSIONED_DATE	Date MIRN commissioned	DATE	10	NA	NA	NA		yyyy-mm-dd
CONSUMPTION_HR01	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR02	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR03	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR04	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR05	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR06	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR07	Energy Consumption for the Hour	NUM	10	0	Y	MJ		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
CONSUMPTION_HR08	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR09	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR10	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR11	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR12	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR13	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR14	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR15	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR16	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR17	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR18	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR19	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR20	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR21	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR22	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR23	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CONSUMPTION_HR24	Energy Consumption for the Hour	NUM	10	0	Y	MJ		
CU_EFFECTIVE_DATE	The date on which the current user became the current user for the MIRN	DATE	10	NA	NA	NA		yyyy-mm-dd
DATA_GENERATION_DATE	The date on which the data was retrieved from the AEMO Registry.	DATE	10	NA	NA	NA		yyyy-mm-dd
DEEMED_INJECTION	Deemed Injections	NUM	10	0	Y	MJ		
DELTA_SBRA	Daily difference in summed basic reconciliation amount	NUM	10	0	Y	MJ		
DELTA_BWRA	Daily difference in basic withdrawal reconciliation amount	NUM	10	0	Y	MJ		
END_DATE	The end Date of a historical Data Request	DATE	10	NA	NA	NA		yyyy-mm-dd
ENERGY	Total energy value	NUM	11	0	Y	MJ		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
ENERGY_HR01	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR02	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR03	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR04	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR05	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR06	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR07	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR08	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR09	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR10	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR11	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR12	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR13	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR14	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR15	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR16	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR17	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR18	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR19	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR20	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR21	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR22	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR23	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_HR24	Energy for the hour	NUM	11	0	Y	MJ		
ENERGY_INFLOW_HR01	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR02	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR03	Energy Inflow for the hour	NUM	10	0	Y	MJ		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR04	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR05	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR06	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR07	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR08	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR09	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR10	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR11	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR12	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR13	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR14	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR15	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR16	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR17	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR18	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR19	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR20	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR21	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR22	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR23	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ENERGY_INFLOW_HR24	Energy Inflow for the hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR01	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR02	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR03	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR04	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR05	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR06	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR07	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR08	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR09	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR10	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR11	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR12	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR13	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR14	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR15	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR16	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR17	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR18	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR19	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR20	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR21	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR22	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR23	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
ESTIMATED_CONSUMPTION_AMOUNT_HR24	Estimated Energy Consumption for the Hour	NUM	10	0	Y	MJ		
FRB	Failed Retailer Business	CHAR	10	NA	NA	NA		
FSS	Swing Service Fee	NUM	11	2	N	Dollars		
GAA	Gate Point Adjustment Amount	NUM	10	0	Y	MJ		
GAS_DAY	The gas day upon which is the information	DATE	10	NA	NA	NA		yyyy-mm-dd
GATE_POINT_ID	Unique identification of a gate point – This is made up of ABCCE as defined in Appendix 1 of the RMR	CHAR	10	NA	NA	NA		
HDD_VALUE	Heating degree day Value	NUM	15	6		NA		
HV_ZONE	Heating Value Zone	CHAR	3	NA	NA	NA	See RMR Appendix 1	
HISTORICAL_DAY	The historical gas day relating to the information	DATE	10	NA	NA	NA		yyyy-mm-dd

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Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR01	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR02	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR03	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR04	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR05	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR06	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR07	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR08	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR09	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR10	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR11	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR12	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR13	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR14	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR15	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR16	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR17	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR18	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR19	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR20	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR21	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR22	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR23	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
HOURLY_APPORTIONMENT_HR24	Portion of Gate Point Inflow for the Hour	NUM	10	0	Y	MJ		
LAST_MODIFICATION_DATE	The last date of modification of data	DATE	10	NA	NA	NA		yyyy-mm-dd
LAST_READ_DATE	This is the last date for which meter reads have been supplied to the Market Operator AEMO prior to the day that is missing consumed energy data.	DATE	10	NA	NA	NA		

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Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
	The Network Operator is to supply all energy data calculated since this date. If no date is supplied then the network operator is to supply energy data calculated since commencement of the Retail Market.							
MCP_TANUSA	The Marginal clearing price for the total of all adjusted non-user-specific amounts of Swing Service to be procured through the bid stack.	NUM	11	3	NA	Cents / MJ		
MCP_TSS	Marginal clearing price (MCP) for the total amount of swing service to be procured through the bid stack	NUM	11	3	NA	Cents / MJ		
METER_TYPE	The type of a meter	CHAR	1	NA	NA	NA	I – interval B – basic	
MILP	Monthly interval load percentage	NUM	3	0	N	%		
MIRN_COMMISSIONED_DATE	The date on which the MIRN was commissioned.	DATE	10	NA	NA	NA		yyyy-mm-dd
MIRN_STATUS_END_DATE	The end date for a MIRN State	DATE	10	NA	NA	NA		yyyy-mm-dd
MIRN_STATUS_START_DATE	The start date for a MIRN State	DATE	10	NA	NA	NA		yyyy-mm-dd
MRA	Miscellaneous reconciliation amount	NUM	10	0	Y	MJ		
NETOP_GBO_ID	Unique identification of a network operator	CHAR	10	NA	NA	NA		
NOMINATION_AMOUNT	Daily consumption nominated by a user	NUM	10	0	Y	MJ		
NORMALISATION_FACTOR	Normalisation Factor	NUM	11	6	Y	NA		
NOTIFICATION_TYPE	Type of requested change to shipper's register	CHAR	1	NA	NA	NA	A = Add D = Delete	
NSL	Net system load	NUM	11	0	Y	MJ		
NUSA	User's Non-specific swing service amount	NUM	10	0	Y	MJ		
PARTICIPANT_GBO_ID	Participant's (User, Network Operator, Pipeline Operator ...) GBO identification	CHAR	10	NA	NA	NA		
PARTICIPANT_LAST_CHANGE	The GBO Id of the participant who last initiated a data change.	CHAR	10	NA	NA	NA		
PCI	Pipeline corrected injection	NUM	10	0	Y	MJ		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
PI	Pipeline Injection	NUM	10	0	Y	MJ		
PIPELINE_OPR_GBO_ID	Pipeline Operator GBO identification	CHAR	10	NA	NA	NA		
PIPELINE_ID	Unique identification of a pipeline	CHAR	1	NA	NA	NA	Appendix A.6	
PIPELINE_RATIO	Ratio for a flow ratio control pipeline	NUM	3	2	Y	NA		
PRICE	Price	NUM	11	3	N	Cents / MJ		
PROFILE_FORECAST_HR01	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR02	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR03	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR04	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR05	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR06	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR07	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR08	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR09	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR10	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR11	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR12	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR13	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR14	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR15	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR16	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR17	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR18	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR19	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR20	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR21	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		

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Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR22	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR23	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_FORECAST_HR24	Forecasted Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILE_HR01	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR02	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR03	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR04	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR05	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR06	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR07	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR08	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR09	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR10	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR11	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR12	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR13	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR14	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR15	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR16	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR17	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR18	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR19	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR20	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR21	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR22	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR23	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		
PROFILE_HR24	Portion of Daily Energy Value for the Hour	NUM	3	0	Y	%		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR01	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR02	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR03	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR04	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR05	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR06	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR07	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR08	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR09	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR10	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR11	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR12	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR13	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR14	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR15	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR16	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR17	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR18	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR19	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR20	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR21	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR22	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR23	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PROFILED_NOMINATION_HR24	Nominated Energy Value for the Hour	NUM	10	0	Y	MJ		
PUSA	User's Penalty Swing Service Amount	NUM	10	0	Y	MJ		
REASON_CODE	Code indicating the reason for invalid information	CHAR	5	NA	NA	NA		
REASON_DESCRIPTION	Description of the reason for invalid information	CHAR	255	NA	NA	NA		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
REMOVAL_REASON	Description of the reason	CHAR	255	NA	NA	NA		
ROLR_ID	The GBO ID of a ROLR	CHAR	10	NA	NA	NA		
ROLR_DATE	The date the designated RoLR became FRO	DATE	10	NA	NA	NA		
SETTLEMENT_RUN_ID	Identification of STTM Rreport Run	CHAR	3	NA	NA	NA		
SHIPPER_GBO_ID	Shipper's GBO Id – Unique identification of a shipper	CHAR	10	NA	NA	NA		
SMALL_CUSTOMER	WA: Holds an indicator as to whether the customer is a small use customer or not. SA: Holds the small use customer indicator as defined in the RMR.	CHAR	1	NA	NA	NA	Y N	
SS	Swing Service	NUM	10	0	Y	MJ		
SSAR	Swing Service Amount Repaid	NUM	10	0	Y	MJ		
SSP_ID	Swing Service Provider GBO Id – Unique identification of a swing service provider	CHAR	10	NA	NA	NA		
SSP_R_ID	Swing Service Provider GBO Id – Unique identification of a swing service provider who is unwinding the SS	CHAR	10	NA	NA	NA		
START_DATE	The start Date of a historical Data Request	DATE	10	NA	NA	NA		yyyy-mm-dd
SUB_NETWORK_ID	Sub-network Id – Unique identification of a sub-network	CHAR	4	NA	NA	NA	Appendix A.5	
SUBS_METHOD	Defines the substitution method used for substitution	CHAR	1	NA	NA	NA	D-Like day I-Last Valid E-Equal amt L-Last available	
SWING_GAS_QUANTITY	Swing Gas Quantity energy quantity required by a participant that has been profiled	NUM	11	0	Y	MJ		
SWING_TYPE	Defines the type of Swing service in question. Either park or loan service.	CHAR	1	NA	NA	NA	P-Park L-Loan	
TANUSA	Total adjusted non-user specific swing amount	NUM	10	0	Y	MJ		
TAUSA	Total adjusted user specific swing amount	NUM	10	0	Y	MJ		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
TBRA	Total basic reconciliation amount	NUM	10	0	Y	MJ		
TBWRA	Total basic withdrawal reconciliation amount	NUM	10	0	Y	MJ		
TPI	Total delta pipeline injection	NUM	10	0	Y	MJ		
TIRA	Total interval reconciliation amount	NUM	10	0	Y	MJ		
TMRA	Total miscellaneous reconciliation amount	NUM	10	0	Y	MJ		
TOTAL_DAILY_CONSUMPTION	Total Daily Consumption for a interval delivery point	NUM	10	0	Y	MJ		
TOTAL_EW_CUSTOMERS	Total Customer count	NUM	10	0	N	NA		
TRA	Total Reconciliation amount	NUM	10	0	Y	MJ		
TRANSMISSION_ZONE	Transmission Zone	NUM	2	0	N	NA	See RMR Appendix 1	
TSS	Total swing service for bid stack	NUM	10	0	Y	MJ		
TUSA	Total user specific swing amount	NUM	10	0	Y	MJ		
TUNUSA	Total non-user specific swing amount	NUM	10	0	Y	MJ		
PROCESS_START_DATE	The date on which a transaction (business process) started (as notified by the Market Operator AEMO). Used in association with the relevant MIRN to inform participants of transactions which have been cancelled as the result of a ROLR event	DATE	10	NA	NA	NA		yyyy-mm-dd
UBW	Users basic withdrawal	NUM	10	0	Y	MJ		
UDBW	User's Distributed Basic Withdrawal	NUM	10	0	Y	MJ		
UDURA	User's daily unaccounted for gas reconciliation amount	NUM	10	0	Y	MJ		
UDW_TOTAL	Total user deemed withdrawal	NUM	10	0	Y	MJ		
UEBW	User's total estimated basic withdrawal	NUM	10	0	Y	MJ		
UETW	User's total estimated withdrawal	NUM	10	0	Y	MJ		
UIW	User's total interval withdrawal	NUM	10	0	Y	MJ		
URAA	User's Reconciliation Adjustment amount	NUM	10	0	Y	MJ		
USA	User specific swing service amount	NUM	10	0	Y	MJ		

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signed	Units	Enumeration	Mask
ABS_UETW_TOTAL	The absolute value of the total User estimated withdrawal	NUM	10	0	Y	MJ		
USER_DEEMED_WITHDRAWAL	The deemed withdrawal by a user from the sub-network	NUM	10	0	Y	NA		
USER_EW_CUSTOMERS	User customer count	NUM	10	0	N	NA		
USER_GBO_ID	User's GBO Id – Unique identification of a user	CHAR	10	NA	NA	NA		
USER_PROFILE_TYPE	Te type of the component of the user's profile forecast	CHAR	7				UPF UBPF UIPF RPF SPF UUAFGPF	
USS	User's Swing Service Amount	NUM	10	0	Y	MJ		
UAUAFG	User's Actual Unaccounted for Gas	NUM	10	0	Y	MJ		
UUAFG	Users unaccounted for gas	NUM	10	0	Y	MJ		
UUAFGRA	User's Unaccounted for gas reconciliation amount	NUM	10	0	Y	MJ		
UUAFGRAA	Users unaccounted for gas reconciliation adjustment amount	NUM	10	0	Y	MJ		
READ_TYPE_FLAG	Flag marking whether the read has the actual value, or if it has been estimated.	CHAR	1	NA	NA	NA	A = Actual E = Estimate	
REPORT_DATE	Date of report	DATE	10	NA	NA	NA		yyyy-mm-dd
MOVEMENT	Last transfer status relative to User	CHAR	7				Won Lost None	
USER_STTM_DSA	User's STTM Distribution System Allocation Data	NUM	10	0	Y	MJ		

A.3 CSV Datatypes used in aseXML Formatted Files Only (as CSV Payload)

Element Name	Description	Log. Type	Log. Length	Dec. Length	Signe d	Units	Enumeration	Mask
NMI	MIRN – Unique identification of a delivery point	CHAR	10	NA	NA	NA		
NMI_CHECKSUM	MIRN – check sum	CHAR	10	NA	NA	NA		
PREVIOUS_READ_DATE	The date that the previous reading for the MIRN was taken. ccyy-mm-dd	DATE	10	NA	NA	NA		ccyy-mm-dd
CURRENT_READ_DATE	The date that the current reading for the MIRN was taken. ccyy-mm-dd	DATE	10	NA	NA	NA		ccyy-mm-dd
CONSUMED_ENERGY	Energy flow measured in megajoules.	NUM	11	0	Y	MJ		

A.4 SUB_NETWORK_ID enumeration

A.4.1 Western Australia

SUB_NETWORK_ID	Description
1101	Geraldton (Nangetty Road)
1102	Eneabba
1103	Muchea
1404	The Vines
1105	Ellenbrook
1106	Metro North
1107	Metro South
1108	Barter Road, Naval Base
1109	Rockingham
1110	Pinjarra
1111	Oakley Road (Pinjarra)
1112	Harvey
1113	Kemerton
1114	Clifton Road, Bunbury
1315	Albany
1216	Kalgoorlie

A.4.2 South Australia

SUB_NETWORK_ID	Description
2101	Adelaide Metropolitan

SUB_NETWORK_ID	Description
2102	Waterloo Corner
2103	Virginia
2104	Wasleys
2105	Freeling
2106	Nurioopta
2160	Angaston A
2108	Murray Bridge
2109	Berri
2210	Mildura
2111	Peterborough
2112	Port Pirie
2113	Whyalla
2114	Mount Gambier
2150	Daveyston
2151	Burra
2152	Nangwarry
2153	Snuggery
2154	Whyalla A
2155	Whyalla B
2156	Whyalla C
2157	Smithfield
2158	Penola
2159	Port Bonython

A.5 PIPELINE_ID enumeration

A.5.1 Western Australia

PIPELINE_ID	Description
D	Dampier to Bunbury Natural Gas Pipeline
P	Parmelia Pipeline
G	Goldfields Gas Transmission Pipeline
L	LPG supply

A.5.2 South Australia

PIPELINE_ID	Description
S	SEAGas Pipeline
M	Moomba to Adelaide Pipeline
K	Katnook Pipeline

Appendix B – EVENT CODES

aseXML Message Level Event Codes:

Event	Description
5	Uncompression failure
6	Message too big
5805	Unknown Transaction

CSV Message Level Event Codes:

Event	Description
5	Uncompression failure
6	Message too big
5800	Duplicate zip filename
5801	Zip filename is not the same as the csv filename
5802	csv message does not end with .CSV
5803	Initiator GBO ID in the filename does not match the user directory
5804	Recipient GBO ID in the filename does not match GRMS id
5805	Unknown Transaction
5806	Initiator GBO ID is not active in the market
5807	Duplicate unique ID in filename
5808	Invalid unique ID in filename

The Registry:

Event	Description	Invoked by Transaction
0	(No description given)	CATSChangeResponse ²
0	(No description given)	CATSObjectionResponse
201	Missing mandatory data item	CATSChangeRequest
201	Missing mandatory data item	GasMeterNotification/ MeterFix
201	Missing mandatory data item	CATSChangeAlert
202	DCN Effective Date not a valid date	Data Change Notice (Notice)
202	Gas Zone not found	Data Change Notice (Notice)
202	Gas Zone not found	GasMeterNotification/ MeterFix
202	Invalid XML element found	CATSChangeRequest
202	Invalid XML element found	CATSChangeRequest
202	Invalid XML element found	CATSChangeWithdrawal
202	Invalid XML element found	CATSObjectionRequest
202	Invalid XML element found	CATSObjectionWithdrawal
202	Invalid XML element found	Data Change Notice (Notice)
202	Invalid XML element found	Error Correction Notice (Notice)
202	Invalid XML element found	GasMeterNotification/ MeterFix
202	Invalid XML element found	GasMeterNotification/ MIRNStatusUpdate
202	Invalid XML element found	CATSChangeAlert
202	MIRN not found	Error Correction Notice (Notice)
202	MIRN not found	GasMeterNotification/ MIRNStatusUpdate
202	Participant not responsible for supplied MIRN	Bulk Data Request (Notice)
2039	Correction BP referred to by MIRN does not exist	Error Correction Notice (Notice)
3000	Transfer may not be correct - d - completion date too far in past	CATSChangeRequest
3001	Earliest Change Date not a valid date	CATSChangeRequest
3002	Earliest Change Date supplied is too early	CATSChangeRequest
3002	Earliest Change Date supplied is too late	CATSChangeRequest
3007	Incorrect Transfer not found	CATSChangeRequest
3007	ROLR is not associated with MIRN	CATSObjectionRequest
3007	Supplied correction IRID is not for New Connection or Removed MIRN	Error Correction Notice (Notice)
3007	Supplied IRID and objection IRID are not associated	CATSObjectionWithdrawal
3007	Supplied IRID not found	CATSChangeWithdrawal
3007	Supplied IRID not found	CATSObjectionRequest
3007	Supplied IRID not found	CATSObjectionWithdrawal
3007	Supplied IRID not found	Error Correction Notice (Notice)
3007	Supplied objection IRID not found	CATSObjectionWithdrawal
3007	Transaction to be corrected is not yet complete	CATSChangeRequest
3007	Supplied IRID not found	CATSChangeAlert
3007	Transfer may not be corrected - not last transaction	CATSChangeRequest

² Note that an event code of ‘0’ may be invoked by other transactions

3011	Incoming User is Current User	CATSChangeRequest
3011	User does not have shipper for network section	CATSChangeRequest
3011	User does not have shipper for network section	GasMeterNotification/MIRNStatusUpdate
3013	Network Operator is not associated with MIRN	CATSObjectionRequest
3013	Network Operator is not associated with MIRN	Data Change Notice (Notice)
3013	Network Operator is not associated with MIRN	Error Correction Notice (Notice)
3013	Network Operator is not associated with MIRN	GasMeterNotification/ MIRNStatusUpdate
3013	Network Operator is not associated with MIRN	GasMeterNotification/ MIRNStatusUpdate
3014	DCN Effective Date supplied is too late	Data Change Notice (Notice)
3014	Standing Data item may not be changed	Data Change Notice (Notice)
3016	Participant is not relevant to this transaction	CATSObjectionRequest
3016	Participant is not relevant to this transaction	CATSChangeAlert
3016	Sending Participant is not the previous user	CATSChangeRequest
3018	Participant GBO Id is not active	CATSChangeRequest
3018	Participant GBO Id is not active	CATSChangeWithdrawal
3018	Participant GBO Id is not active	CATSObjectionRequest
3018	Participant GBO Id is not active	Data Change Notice (Notice)
3018	Participant GBO Id is not active	Error Correction Notice (Notice)
3018	Participant GBO Id is not active	GasMeterNotification/ MeterFix
3018	Participant GBO Id is not active	GasMeterNotification/ MIRNStatusUpdate
3018	Participant GBO Id is not active	GasMeterNotification/ MIRNStatusUpdate
3018	Participant GBO Id is not active	CATSChangeAlert
3018	Participant GBO Id is not active	CATSObjectionWithdrawal
3022	Customer is not 'small use' for transfer move-in	CATSChangeRequest
3022	Meter is not of type 'Basic' for Transfer move in'	CATSChangeRequest
3022	Other conflicting Business process(es) in progress	CATSChangeRequest
3025	Request Withdrawal business process not found	CATSChangeWithdrawal
3025	Request withdrawal not valid for this business process type	CATSChangeWithdrawal
3025	Request withdrawal refers to business process which is not in progress	CATSChangeWithdrawal
3026	Participant requesting withdrawal did not initiate business process	CATSChangeWithdrawal
3027	Objection already withdrawn for objection IRID supplied	CATSObjectionWithdrawal
3028	Objection received outside of lodgement window	CATSObjectionRequest
3028	Objection Withdrawal received outside of lodgement window	CATSObjectionWithdrawal
3029	Incoming User is the ROLR	CATSChangeRequest
3029	Objection withdrawal not valid for this business process type	CATSObjectionWithdrawal
3029	Sending Participant not valid for role 'network operator'	Data Change Notice (Notice)
3029	Sending Participant not valid for role 'user'	CATSChangeRequest
3030	Objection Reason is not valid for Participant Role	CATSObjectionRequest
3031	Objection is not valid for transfer move-in	CATSObjectionRequest

3031	Objection not valid for this business process type	CATSOBJECTIONREQUEST
3031	Objection refers to business process which is not in progress	CATSOBJECTIONREQUEST
3031	Objection refers to unknown business process	CATSOBJECTIONREQUEST
3031	Objection withdrawal refers to unknown business process	CATSOBJECTIONWITHDRAWAL
3031	Alert refers to unknown business process	CATSCCHANGEALERT
3031	Alert refers to a business process which is not in progress	CATSCCHANGEALERT
3032	Objection withdrawal refers to business process which is not in progress	CATSOBJECTIONREQUEST
3033	Objection IRID referred to was raised by a different participant	CATSOBJECTIONWITHDRAWAL
3035	MIRN status not 'commissioned' or 'decommissioned'	CATSCCHANGEREQUEST
3035	MIRN to be corrected does not exist	CATSCCHANGEREQUEST
3038	MIRN not found	CATSCCHANGEREQUEST
3200	Other conflicting Business process(es) in progress	Error Correction Notice (Notice)
3200	Other conflicting Business process(es) in progress	GasMeterNotification/ MIRNStatusUpdate
3400	New Connection may not be corrected - not last transaction	Error Correction Notice (Notice)
3400	Participant GBO Id supplied not valid for role 'user'	CATSCCHANGEWITHDRAWAL
3400	Participant GBO Id supplied not valid for role 'user'	GasMeterNotification/ MeterFix
3400	Removed MIRN may not be corrected - not last transaction	Error Correction Notice (Notice)
3400	Sending Participant GBO Id not found	GasMeterNotification/ MeterFix
3400	Sending Participant not valid for role 'network operator'	Error Correction Notice (Notice)
3400	Sending Participant not valid for role 'network operator'	GasMeterNotification/ MeterFix
3400	Sending Participant not valid for role 'network operator'	GasMeterNotification/ MIRNStatusUpdate
3402	Meter Type is not INTERVAL or BASIC	GasMeterNotification/ MeterFix
3407	Sending Participant GBO Id not found	CATSCCHANGEREQUEST
3407	Sending Participant GBO Id not found	Data Change Notice (Notice)
3407	Sending Participant GBO Id not found	Error Correction Notice (Notice)
3407	Sending Participant GBO Id not found	GasMeterNotification/ MIRNStatusUpdate
3407	Sending Participant GBO Id not found	CATSCCHANGEALERT
3407	Sending Participant GBO Id not found	CATSOBJECTIONWITHDRAWAL
3410	Invalid MIRN status	All
3410	MIRN status is not 'commissioned'	GasMeterNotification/ MIRNStatusUpdate
3410	MIRN status is not 'decommissioned'	GasMeterNotification/ MIRNStatusUpdate
3410	MIRN status not 'commissioned' or 'decommissioned'	GasMeterNotification/ MIRNStatusUpdate
3411	Disconnection Effective Date not valid	GasMeterNotification/ MIRNStatusUpdate
3411	Invalid End Date	Bulk Data Request (Notice)
3411	Invalid Start Date	Bulk Data Request (Notice)
3411	New Connection Effective Date not a valid date	GasMeterNotification/ MeterFix
3411	New Connection Effective Date supplied is too late	GasMeterNotification/ MeterFix
3411	New Connection may not be corrected - completion date too far in past	Error Correction Notice (Notice)
3411	Permanently Removed Effective Date not valid	GasMeterNotification/ MIRNStatusUpdate

3411	Reconnection Effective Date not valid	GasMeterNotification/ MIRNStatusUpdate
3411	Removed MIRN may not be corrected - completion date too far in past	Error Correction Notice (Notice)
3411	Transaction to be corrected did not take place on specified date	Error Correction Notice (Notice)
3411	Cancellation too late	CATSChangeWithdrawal
3413	MIRN already exists	GasMeterNotification/ MeterFix
3662	Invalid MIRN checksum	CATSChangeRequest
3662	Invalid MIRN checksum	GasMeterNotification/ MeterFix
3662	Invalid MIRN checksum	GasMeterNotification/ MIRNStatusUpdate

SA Only - RoLR Event Codes in INT801 Report:

Event	Description	Invoked by Transaction
3401	MIRN unknown to GRMS	Customer and Site Details (T900)
3403	Checksum does not match MIRN	Customer and Site Details (T900)
3412	Data set incomplete	Customer and Site Details (T900)
3555	MIRN belongs to a different User	Customer and Site Details (T900)
3556	MIRN details missing	Customer and Site Details (T900)

Balancing Allocation and Reconciliation:

Event Codes	Description
3204	'StartDate does not dovetail'
3205	'Start Date not before End Date'
3205	'Invalid End Date'
3205	'Gas Date may not be in the future'
3206	'Invalid Start Date'
3208	'Invalid Meter Reading type'
3209	'Invalid DPI'
3210	'Invalid Checksum for the Delivery Point Id'
3213	'Mandatory Field Missing'
3213	'Missing element in Meter Reading'
3214	'Invalid value for reading'
3214	'Invalid Sub Network'
3216	'Invalid date format or date is missing'
3410	'DPI Found in database but not active'
3655	'Start Date too old'
3673	'Invalid data in aseXML Field'
3676	'Reading of better quality for this metering period already exists for this meter'
5200	Invalid Gas Day
5202	'Data not in time for gas day.'

5202	Instructions not received within the required time frame
5203	'Invalid pipeline identification'
5204	'Invalid sub-network identification'
5205	'Invalid swing service provider identification'
5206	'Null Swing Type Provided.'
5206	'Invalid swing service type'
5207	Invalid priority
5207	'Invalid Numerical Value'
5207	'Null Price Provided.'
5207	'Null Number Provided.'
5208	'Duplicate CSV Entry.'
5208	Duplicate identification
5213	'Invalid User.'
5214	'User not registered to receive swing gas for the current Swing Service Provider'
5215	'Swing Service Provider not registered for sub-network'
5215	'Swing service provider not registered for the sub-network'
5217	'Invalid Allocation Type'
5217	'Null Allocation Type Provided'
5400	Invalid shipper identification
5401	Invalid pipeline operator identification
5402	Invalid network operator identification
5403	Invalid energy value
5403	'Null Energy Value Provided.'
5405	The required number of values for the daily profile was not specified.
5405	'Profile does not have enough values.'
5405	'The required number of values for the daily profile was not specified.'
5406	Sum of the hourly allocation of the profile does not equal 100%
5406	'Profile does not add up to 100%.'
5406	'Sum of the hourly allocation of the profile does not equal 100%'
5412	'Null Profile Provided'
5213	Invalid user identification
5413	Invalid participant type
5414	'Null Participant ID'
5415	'Invalid Participant ID'
5215	Swing service provider not registered for the sub-network
5416	'Date For GasDay Is Null'
5216	Swing service provider not registered for the pipeline
5217	Invalid allocation type
5418	'Invalid Format for Profile Value'
5420	'Invalid Pipeline Operator for the Pipeline.'
5220	Allocation specified does not equal to 100%
5221	Allocation specifies more than 100%
5224	Invalid price
5424	'Hour should be between 1 and 24'
5426	'User is not associated with sub-network'
5426	'Invalid Sender.'
5427	'Could not calculate total energy inflow with given data'

5427	'Missing at least one hourly interval meter reading'
5427	'Value Provided is not positive.'
5429	'Invalid DPI'
5600	Invalid participant Identifier
5601	Sender is not permitted to provide this information
5602	Invalid profile
5603	Invalid gate point identification
5603	'Invalid gate point identification'
5604	Invalid delivery point identifier
5605	Invalid delivery point check sum
5606	Invalid reading type
5607	Invalid Percentage
5608	Gate Point is valid but de-active
5609	Missing Hourly Value
5610	Malformed CSV

Appendix C – REASON CODES AND DESCRIPTIONS

CancellationReasonCodes (CRC) and Descriptions:

Code	Description
CRC000	Business process cancelled due to ROLR event ³
CRC001	Transfer Cancelled: Objection upheld
CRC002	Transfer Cancelled: Request withdrawn
CRC003	Transfer Cancelled: MIRN permanently removed
CRC004	Transfer Cancelled: ROLR event occurred
CRC005	Transfer Cancelled: Read not received
CRC006	Transfer Cancelled: Market Operator multiple data change transaction
CRC007	Error Correction (Transfer) Cancelled: Objection upheld
CRC008	Error Correction (Transfer) Cancelled: Request withdrawn
CRC009	Error Correction (Transfer) Cancelled: MIRN permanently removed
CRC010	Error Correction (Transfer) Cancelled: ROLR event occurred
CRC011	Error Correction (Transfer) Cancelled: Market Operator multiple data transaction
CRC012	Data Change Notice Cancelled: MIRN permanently removed
CRC013	Data Change Notice Cancelled: Market Operator multiple data transaction
CRC014	Disconnection Cancelled: MIRN permanently removed
CRC015	Disconnection Cancelled: Read not received
CRC016	Disconnection Cancelled: Market Operator multiple data transaction
CRC017	Reconnection Cancelled: MIRN permanently removed
CRC018	Reconnection Cancelled: Market Operator multiple data transaction
CRC019	Reconnection Cancelled: Read not received
CRC020	Permanent Removal Cancelled: Market Operator multiple data transaction
CRC021	Permanent Removal Cancelled: Read not received
CRC022	Reconnection cancelled: Concurrent disconnection received
CRC023	Disconnection cancelled: Concurrent reconnection received
CRC024	Permanent Removal cancelled: MIRN permanently removed

DataChangeReasonCodes(DCR) and Descriptions:

Code	Description
DCR001	Transfer
DCR002	Error correction (Transfer)
DCR003	Error correction (MIRN permanently removed)
DCR004	Change to standing data
DCR005	Change to MIRN status
DCR006	MIRN permanently removed
DCR007	New Connection
DCR008	Error correction (New Connection)

³ This code will be used internally to GRMS, and will not be communicated to the market.



FRC B2B System Interface Definitions

For the SA and WA Gas Retail Markets

Version: ~~3~~4.0.9
Last Update: ~~14/9/2015~~TBA

Version History

Version	Date	Author(s)	Changes and Comments
0.1	30/9/03	C. Madden	Worked example to demonstrate approach
0.2	1/10/03	C. Madden	Updated based on output from SA S2B Working Group
0.3	2/10/03	B. Eaves	Updated following initial Q/A and feedback from participants
0.4	21/10/03	B. Eaves	Updated following workshop and comments received from the B2B Working Group.
1.0	31/10/03	B. Eaves	Updated following review by SA/WA B2B Working Group:
2.0	17/11/03	B. Eaves	<ul style="list-style-type: none"> • Section 4.5 Network Billing added • aseXML examples updated • References to Victorian transactions 31, 31A and 31B corrected. • Inclusion of generic event codes in transaction tables • 4.1.2.1 – Modifications to usage comments for RB_Reference_Number • 4.1.5 – Removal of paragraphs in relation to 'current user' • 4.1.7 – Modification to diagram to show 'no change' process flow. • 4.1.8 – Clarifications of differences between SA and WA. Added text re: use of Account Creation for interval meters. • 4.2.2.1 – Modifications to usage comments • 4.3.2.3 – Addition of error code 3680 • 4.3.2.6 – Modification to usage notes re CustomerCharacterisation. • Appendix A – Addition of Network Billing Data Elements • Addition of codes for Job Enquiry, Job Completion and Meter Position • Addition of Allowed Values for 'DistributionTariff' • Minor wording and formatting corrections • Addition of Allowed Values for 'Market' • Addition of description for "ProposedRead/IndexValue" • Appendix B – Additional introductory text • Appendix C – Modification of severity for error code 3680
2.01	24/11/03	B. Eaves	Version control issue management
2.2/2.9	22/12/03/19/1/04	B. Eaves	<ul style="list-style-type: none"> • Front page reformatted. • Minor wording changes in reference to original VENCORP documents. • 4.2.2. Additional text re: different types of

Version	Date	Author(s)	Changes and Comments
			<p>service orders.</p> <ul style="list-style-type: none"> 4.2.2.1. and 4.2.2.2. Modifications to usage notes including COC number, plumber's licence number and ServiceOrderNumber (also reflected in Appendix A) 4.3.2.1. Terms 'active and blocked' changed to 'commissioned and decommissioned' 4.3.2.3. Transmission Zone, Heating Value Zone, MIRN Status and Meter Status changed from Mandatory to Optional and usage notes for data elements amended to show differences between single and multiple MIRN responses. 4.3.2.3. Usage notes amended to show that House Number 2, House Number Suffix 3, etc are not used in WA (this has also been reflected in Appendix 1.) 4.5.2. Modifications to description of network billing dispute process Appendix A. Additional data elements used in non-automated electronic files (Appendix E) added. Appendix A. Notes show that Customer Characterisation is not used in WA. Appendix A. Notes for Job Completion Codes and Job Enquiry Codes now cross-reference to REMCo Information Pack. Appendix A. Additions to usage notes for StartWorkNoticeNumber in WA. Appendix A. Additions to usage notes for Meter_Status to show that it is not used in WA. Appendix A. Additions to usage notes for Type of Read to show that Customer Own Read is not used in WA. Modifications to headings of csv data dictionary (to align with ICD and csv file format document). Appendix E. New appendix with definitions of electronic files (not carried via aseXML). Appendix A Clarification to MIRN Status Definitions Appendix A cross reference to aseXML schema for address elements aseXML examples and diagrams updated and introduction amended.
3.0	19/3/04	B. Eaves	<ul style="list-style-type: none"> Addition of two dispute codes (MDQ= MDQ is different and RDFG = Rate is different) to Appendix A csv data elements. 1.3.1. Additional cross-reference to Service

Version	Date	Author(s)	Changes and Comments
			<p>Order Specifications.</p> <ul style="list-style-type: none"> 4.1.1. Text added to indicate that (apart from AccountCreationNotification) these transactions are not used for interval meter data. 4.1.6. Clarification of special read process in relation to inability to obtain special read for a move-in due to no-access. Appendix A csv data elements. Logical length of 'rate' changed to 11,2. Appendix A csv data elements. Addition of 'Paid_Date' Appendix A csv data elements. Addition of GST_Exclusive_Amount_Paid (previously omitted). Appendix A aseXML data elements. Changes to allowed values for AdjustmentReasonCode. Appendix A aseXML data elements – amended cross-reference for JECs and JCCs to refer to Service Order Specifications in the REMCo Specification Pack. Appendix C. Severity of error codes relating to multiple MIRN discovery responses changed to 'Information'. 4.2.3. Inserted text re: processes for I&C customers in SA. 4.2.3.4. Usage notes for COC number amended. 4.2.3.4 Usage notes for ContactDetails and SORDSpecialComments amended for SA 4.2.3.5. Additional elements added to Service Order Response for WA. 4.2.3.4 and 4.2.3.5 Amended cross-reference to refer to Service Order Specifications in the REMCo Specification Pack 4.2.3.5 Modified usage notes for AppointmentDetail/ Preferred/ Date in WA 4.2.3.5 aseXML examples corrected 4.3.2. Modified usage notes for ExcludedServicesCharges elements for WA 4.3.2.3. Changes to usage notes for 'additional data to follow' for multiple responses. 4.4.3.1. Minor correction to text in table. 4.4.3.1. Modification to Customer_Characterisation usage notes. 2.2 Addition of billing transactions to table (omitted in previous version)

Version	Date	Author(s)	Changes and Comments
			<ul style="list-style-type: none"> • Appendix E. • Meter_Status changed from mandatory to optional in Energy History Response. Usage notes amended. • New transaction 'Interval Meter Energy History Response' added. • Addition of 'Peak Rate' to Interval_Meter_Data and to csv data elements • Addition of text to Section 4.2 to explain different types of service orders and implications for business processes etc.
3.1	10/5/04	B.Eaves	<ul style="list-style-type: none"> • Appendix A, CSV Data Elements. Length of Daily Heating Value changed from 4,2 to 5,3 (B2B CR1) • 4.5.2.1 Usage notes for Old_Transaction_ID and Old_Invoice_Number amended to include 'Optional if Adjustment_Indicator is set to "R" for re-bill' in all transactions (B2B CR2 – with modifications agreed at B2B WG Mtg 16/4/04). • Section 4. Specification for 'Time Formats' added to introduction (B2B CR3) – also in Introduction to Appendix A CSV elements. • Appendix E. 'State-Or_Territory' and 'Postcode' added as optional elements to Refresh of New Street Listing for MIRN Discovery transaction (B2B CR4). • Appendix A, CSV Data Elements. Clarification notes added to 'Current_Read_Date and Previous_Read_Date for interval meteres (B2B CR5). • 4.2.3.4. Usage notes amended for WA usage of COCNumber, LoadDetailsPerHour, PlumberLicenceNumber and StartWorkNoticeNumber (B2B CR9). • 4.2.3.5 Modifications to usage notes for access details in WA. • 4.3.2.5 'NMIWithChecksum' changed to 'NMI' to correct error. aseXML example also modified. • 4.1.2.1 & Appendix A – CSV elements – Change to usage notes for Meter-Status for WA. • Appendix F – Unstructured transactions added. • 4.3.2.3 MIRNDiscovery Response transaction for interval meters corrected

Version	Date	Author(s)	Changes and Comments
			<ul style="list-style-type: none"> 4.5.2 Notes added to Tariff D and V files as defined in B2B CR8. Appendix A. Added usage notes for Distribution Tariff and Network Tariff Code as per CR8
3.2	1/6/05	REMCo	<ul style="list-style-type: none"> 4.5.2.1 Network Billing – addition of comments for the DisputeResolution transction in accordance with change request C20/04S. Amendments to Sections 4.1.6.2, 4.2.3.5, 4.5.2.1 and Appendices A, C and E in accordance with Rule Change C05/04S.
3.3	1/10/10	T Sheridan	<ul style="list-style-type: none"> Updated to reflect the relevant Market Operator requirements following the transfer of REMCo's SA retail market operations to AEMO
3.4	30/7/12	S Macri	<ul style="list-style-type: none"> IN027/11 Customer Classification (NECF changes)
3.5	1/2/13	S Macri	Update to include SA Only changes: <ul style="list-style-type: none"> IN008/10 – South Australian Crossed Meter Process IN008/12 – South Australian Tariff D incorrect referencing IN011/11 – South Australian MIRN Checksum update IN006/12 – South Australian RoLR Requirement
3.6	1/1/14	D.McGowan	Update to include SA Only changes: <ul style="list-style-type: none"> IN026/12 – SA RoLR Automation IN015/13 – (Residual RMP and Spec Pack changes for SA RoLR) IN004/12 – (Redundant provision and minor GIP and Spec Pack changes)
3.7	1/7/14	T. Sheridan	Update to include SA Only changes: <ul style="list-style-type: none"> IN039/12 – MHA and MRT Service Orders
3.8	22/4/15	T.Sheridan	Update to include WA Only changes: <ul style="list-style-type: none"> C03/14S – Bulk Energy History Requests
3.9	14/9/2015	N.Datar	Update to include SA Only changes: <ul style="list-style-type: none"> IN006/09 – JCC combination and Service Order Response additional comment field
4.0	TBA	D. McGowan	Update to include: WA <ul style="list-style-type: none"> C02/16C – REMCo to AEMO transition changes. SA <ul style="list-style-type: none"> IN029/16 – REMCo to AEMO transition

This document was originally based on 'Participant Build Pack 3 - B2B System Interface Definitions' version 1.5 published by VENCORP (now AEMO) on 26th August 2002.

Preamble:

This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes:

(a) Several terms have been changed to a general term where possible with a market specific definition; and

(b) In the interests of keeping new terms and acronyms to a minimum, the original word has been italicised where possible to indicate that its definition again depends on its location.

This approach is to promote interchange-ability in these documents for the benefit of stakeholders from both states.

The terms and there relevant definitions are as follows:

Term:	South Australian Market Definition:	Western Australian Market Definition:
Market Operator	AEMO	REMCe
<i>Retail Market Rules (RMR)</i>	Retail Market Procedures	Retail Market Rules

For more information please contact the Market Operator in your state:

	AEMO	REMCe
Website:	http://www.aemo.com.au	http://www.remco.net.au

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1. Introduction

1.1. Purpose

This document forms part of the [AEMO](#) Specification Pack as referred to in the *Retail Market Procedures Rules*. The purpose of this document 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 either the South Australian or Western Australian Gas Markets will communicate with each other to manage their day-to-day business. The document will 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 as well as ~~the Market Operator~~ [AEMO](#)'s business and IT personnel. It is expected that the audience will have a familiarity with the overall business endeavour of Gas FRC in South Australia and Western Australia, and with the artefacts listed in the Related Documents section of this document.

1.3. Related Documents

1.3.1. South Australia and Western Australia

This document should be read in conjunction with the other documents contained within the [AEMO](#) Specification Pack as follows:

- Interface Control Document,
- FRC B2M-B2B System Architecture
- FRC B2M-B2B System Specifications
- CSV Data Format Specification
- Service Order Specifications

Further detailed documents are provided for assistance and clarification in the Information Pack as follows:

- Business Specification
- Consolidated Transaction List
- B2M Process Flow and Sequence Diagrams
- B2B Process Flow Diagrams
- Glossary of Terms

1.3.2. Victoria

A number of documents were referred to in the original Victorian version of this document. For further information about Victorian processes and specifications of the following 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 referred to in the original Victorian version of this document.

Ref	Artefact Name	Version	Responsible Party or Authors
1	Retail Gas Market Rules: now the Retail Market Procedures (Victoria)	As published on the AEMO website	<i>Gas Retail Consultative Forum (GRCF)</i>
2	Participant Build Pack 1 - Process Maps	As published on the AEMO website	<i>Retail Business Process Working Group (RBPWG)</i>
3	Participant Build Pack 1 - Transaction Definition Table	As published on the AEMO website	<i>Retail Business Process Working Group (RBPWG)</i>
4	Participant Build Pack 1 - Data Element Definition	As published on the AEMO website	<i>Retail Business Process Working Group (RBPWG)</i>
5	Guidelines for Development of a Standard for Energy Transactions in XML (aseXML)	As published on the AEMO website	ASWG
6	User Guide to MIBB Reports	As published on the AEMO website	AEMO
7	Participant Build Pack 2 - Glossary	As published on the AEMO website	AEMO
8	Participant Build Pack 2- Usage Guidelines	As published on the AEMO website	AEMO
9	Participant Build Pack 2 - System Interface Definitions	As published on the AEMO website	AEMO
10	Participant Build Pack 3 – FRC B2B System Architecture	As published on the AEMO website	AEMO

1.4. Definitions and Acronyms

All terms related to this document are defined in the Glossary which forms part of the Information Pack.

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	<p>A number of appendices provided in this document to facilitate transaction search via cross-references and supply event codes, data elements details and definitions of csv files that will not be carried via aseXML..</p> <ul style="list-style-type: none"> A. Data Dictionary for aseXML transaction elements and CSV file column designators B. aseXML Standard Event Codes C. Gas FRC Application Event Codes D. Table of Transactions cross references E. Non Automated Electronic Files

1.6. Examples of aseXML code

Examples of aseXML code have been provided in this document. These examples are based on those provided by the ASWG and have been updated to be aligned with Release 13 of aseXML which is the version to be used in the SA and WA markets.

These examples are provided for illustration only. aseXML code developed by market participants should always be based on the schema published by the ASWG (at <http://www.aemo.com.au/aseXML/index.htm>) and not the examples provided in this document.

2. Overview of Interfaces

2.1. Overview

This document focuses on the specific aseXML interfaces to be used in the B2B transactions. The interfaces focus on business and application logic. The interfaces are grouped based on the transaction categorisation in the Consolidated Transaction List.

Every group of specific interfaces has one or more activity diagrams associated with it. These activity diagrams are based on the B2B Process Flow diagrams.

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

2.2. Scope

This document describes in detail those transactions from the Consolidated Transaction List that will be delivered with aseXML messages. In addition, in Appendix E, this document provides details of some non-automated electronic files (csv files not carried via aseXML). This document excludes references to any B2M transactions or processes where data is also sent to ~~the Market Operator~~ [AEMO](#).

The transactions from the Consolidated Transaction List that have interfaces defined in this document are listed in the following table.

Group	Consolidated Transaction List Reference
Meter Reads - Energy and Consumption	3, 3A, 6, 9, 9A, 12, 13, 15, 17, 17A, 41, 41A, 46, 49, 50, 50A, 51, 51A, 53, 53A, 231, 242, 243, 246, 246A Note: Transactions 31, 31A and 31B listed in the Victorian version of this document will not be used in SA or WA.
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 (SA Only)	70

3. Generic Interfaces

Detailed protocols and mechanisms for handling messages and transactions are described in detail in FRC B2M System Architecture document which is included in the [AEMO](#) Specification Pack.

4. Specific Interfaces

CDATA and Hexadecimal Characters

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

Time Formats

All date/time and time elements in the body of aseXML B2B transactions will be expressed with a Time Zone Designator (TZD). The time zone selected will be at the discretion of the sending party. The sending party must therefore ensure that the combination of time and time zone accurately communicates the point in time being defined.

For example, if a customer in South Australia requests an appointment at 9:00am (Central Australia Standard Time), the data element could contain 09:00:00+09:30 or 09:30+10:00. It is then up to the receiving party to ensure that they have the ability to convert this time to another time zone if required.

In the case of the CSV data element `Last_Modified_Date_Time` (as above), the time zone selected is at the discretion of the sending party.

In the case of the CSV element `'Planned_Outage_Time'`, as this is only included in a manually-prepared email, it will always be in local time without a Time Zone Designator.

As defined in the B2B-B2M Hub Specifications and Architecture documents all date/time stamps in the messaging layer (ebXML) and in the headers of aseXML transactions will be expressed in GMT+10 (market time).

In the following transaction specifications, where a data element is optional and data is not going to be provided for a specific use of the transaction, then that data element should not be included in the transaction. Specifically, the inclusion of the data element with no data or with a '0' should not be used as a way of indicating that there is no data to be communicated.

4.1. Meter Reads – Energy and Consumption

4.1.1. Overview

Meter Reads – Energy and Consumption are the transactions between Network Operators and Users 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
	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
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
	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	User requesting missing meter reading data
MeterReadInputNotification	15	Disconnection Read
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

Note: Transactions 31, 31A and 31B listed in the Victorian version of this document, will not be used in SA or WA.

With the exception of AccountCreationNotification and MeterDataMissingNotification (which is used for interval meter data in WA only), none of the above transactions is used in relation to meter data for interval meters.

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 Network Operator to a User as part of a scheduled process following data collection and energy calculation. The activity diagram below shows the high level process:

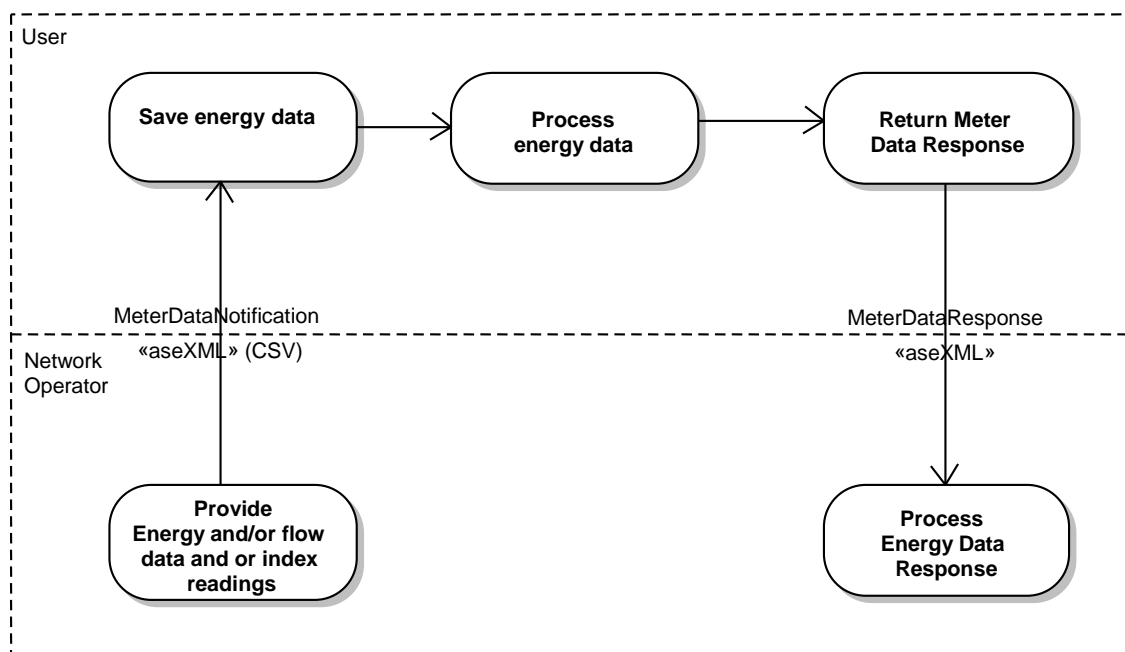


Figure 4-1 Provision of Energy Flow Data Activity Diagram

Process Sequence

Following collection of Meter Read Data and subsequent calculation of energy data, a Network Operator will combine the data for each User for the agreed period into comma separated value (CSV) format and forward this to the applicable Users 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:

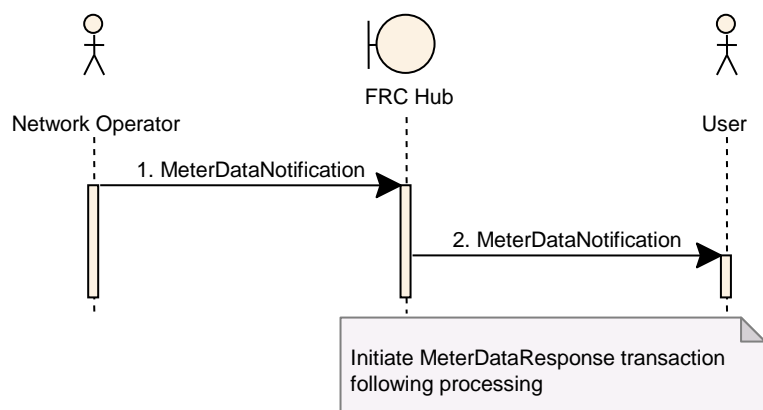


Figure 4-2 Meter Data Notification Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	MeterDataNotification	Network Operator	FRC Hub	MR13
2	MeterDataNotification	FRC Hub	User	

After a User has processed the CSV data, a MeterDataResponse message is returned to the Network Operator 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 Network Operator can use the error information to correct the data for resubmission to the applicable User. CSV records which fail to be read must be resent to the appropriate user.

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

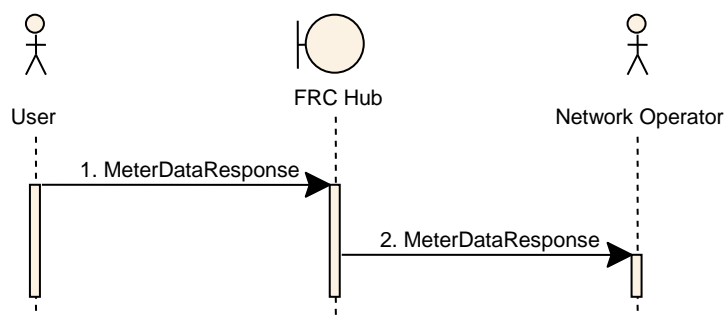


Figure 4-3 Meter Data Response Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	MeterDataResponse	User	FRC Hub	MR13
2	MeterDataResponse	FRC Hub	Network Operator	

4.1.2.1. *MeterDataNotification*

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the Transaction Definition Table:</p> <ul style="list-style-type: none"> • 9 - Energy Flow for Special Read (Not customer transfer), • 13 - Energy Flow for Special Read (Customer transfer), • 17 - Energy Flow for Disconnection Read, • Note: the Victorian transaction 31A - Energy Flow for Customer Own Read is not used in SA or WA) • 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
<i>Trigger</i>	This interface can be triggered as a result of any Scheduled or Special Meter Read.
<i>Pre-conditions</i>	Calculation of energy flow data for relevant User for the agreed period
<i>Post-conditions</i>	User application has saved the CSV data.
<i>Transaction acknowledgment specific event codes</i>	<p>3610, 3627, 3648, 3649 - 3655, 3657, 3658, 3676, 3679, 3665, 3666, 3670, 3672, 3674</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

The MeterDataNotification transaction transfers the Meter Read data in CSV format from the Network Operator to the User.

Transaction Data Elements

Transaction:		MeterDataNotification
Received From:		Network Operator
Sent To:		User
Data Element	Victoria & SA/WA Mandatory / Optional / Not Required	Usage
RecordCount	M	Specifies the number of records contained in the populated CSV element excluding the header row.

Transaction:		MeterDataNotification
Received From:		Network Operator
Sent To:		User
Data Element	Victoria & SA/WA Mandatory / Optional / Not Required	Usage
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	Victoria & SA/WA Mandatory /Optional	Comment
NMI	M	
NMI_Checksum	M	
RB_Reference_Number	O	<p>This element will not be provided if the Read is initiated by a Network Operator.</p> <p>The element is always Required if the User initiated the service order and provided the RB_Reference Number.</p> <p>For an implied Service Order (including a move-in or an unblock on transfer) the RB reference number will always equal the transfer request ID allocated by the Market Operator AEMO.</p>
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	Victoria & SA/WA 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. Will always be "Turned On" in WA as meter status has no meaning in WA.
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:

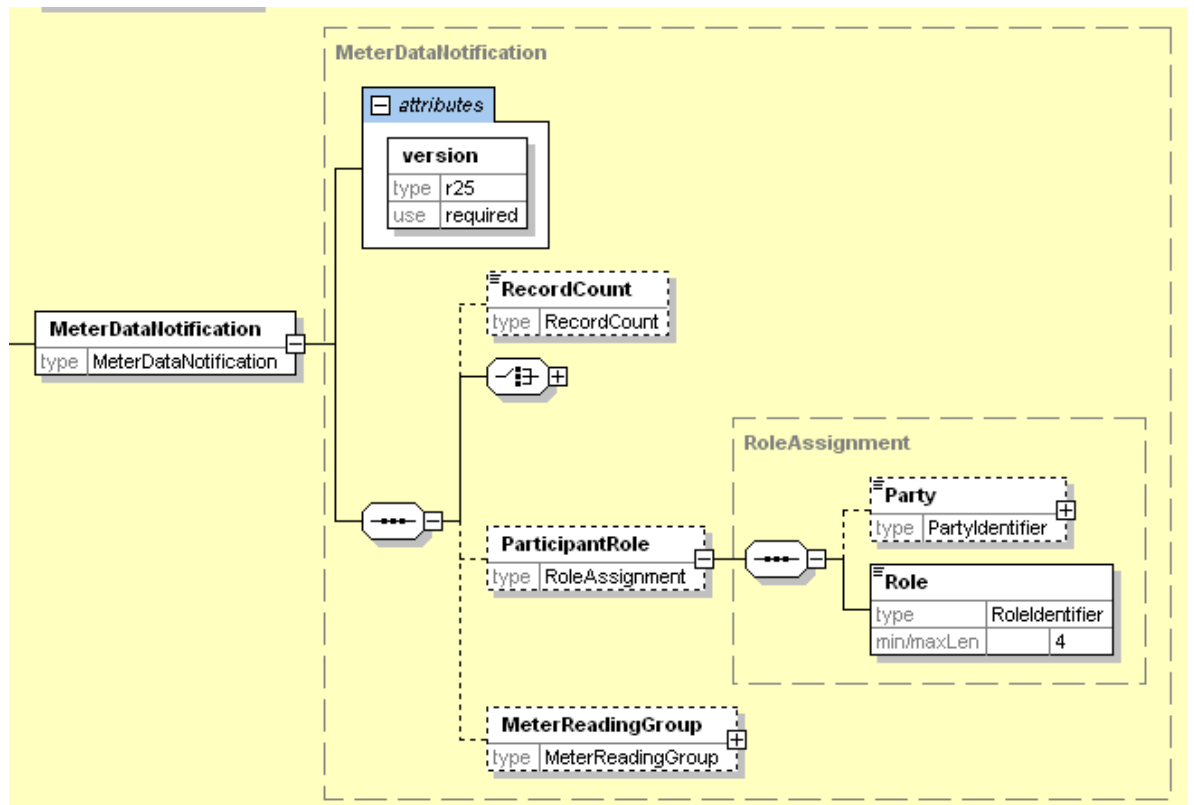


Figure 4-4 MeterDataNotification aseXML schema

The CSV data is included in the CSVConsumptionData element.

XML Sample

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302160238135</MessageID>
  <MessageDate>2012-03-02T15:02:30+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Priority>Low</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302160230604" transactionDate="2012-03-02T15:02:30+10:00">
    <MeterDataNotification version="r25">
      <RecordCount>1</RecordCount>

      <CSVConsumptionData>NMI,NMI_Checksum,RB_Reference_Number,Reason_for_Read,Gas_Meter_Number
      ,Gas_Meter_Units,Previous_Index_Value,Previous_Read_Date,Current_Index_Value,Current_Read_Date,Volume_
      Flow,Average_Heating_Value,Pressure_Correction_Factor,Consumed_Energy,Type_of_Read,Estimation_Substituti
      on_Type,Estimation_Substitution_Reason_Code,Meter_Status,Next_Scheduled_Read_Date,Hi_Low_Failure,Meter_
      Capacity_Failure,Adjustment_Reason_Code,Energy_Calculation_Date_Stamp,Energy_Calculation_Time_Stamp
      5767656543,7,,SRF,A1234,M,12345,2011-04-12,12987,2011-06-11,642,33,1.1,45678,A,,,Plugged,2011-08-
      10,N,N,NC,,</CSVConsumptionData>
    </MeterDataNotification>
  </Transaction>
</Transactions>
```

4.1.2.2. MeterDataResponse

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the Transaction Definition Table:</p> <ul style="list-style-type: none"> • 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, • 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
<i>Trigger</i>	Completion of processing of the CSV data from the MeterDataNotification transaction
<i>Pre-conditions</i>	Energy data has been delivered via MeterDataNotification transaction and processed
<i>Post-conditions</i>	Network Operator has a record of success or failure of processing of the energy data, and all errors detected.
<i>Transaction acknowledgment specific event codes</i>	<p>None.</p> <p>(the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

Note: Transaction 31B listed in the Victorian version of this document will not be used in SA or WA.

The MeterDataResponse transaction advises the Network Operator 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:		User
Sent To:		Network Operator
Data Element	Victoria and SA/WA 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

Transaction:		MeterDataResponse
Received From:		User
Sent To:		Network Operator
Data Element	Victoria and SA/WA Mandatory / Optional / Not Required	Usage
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:

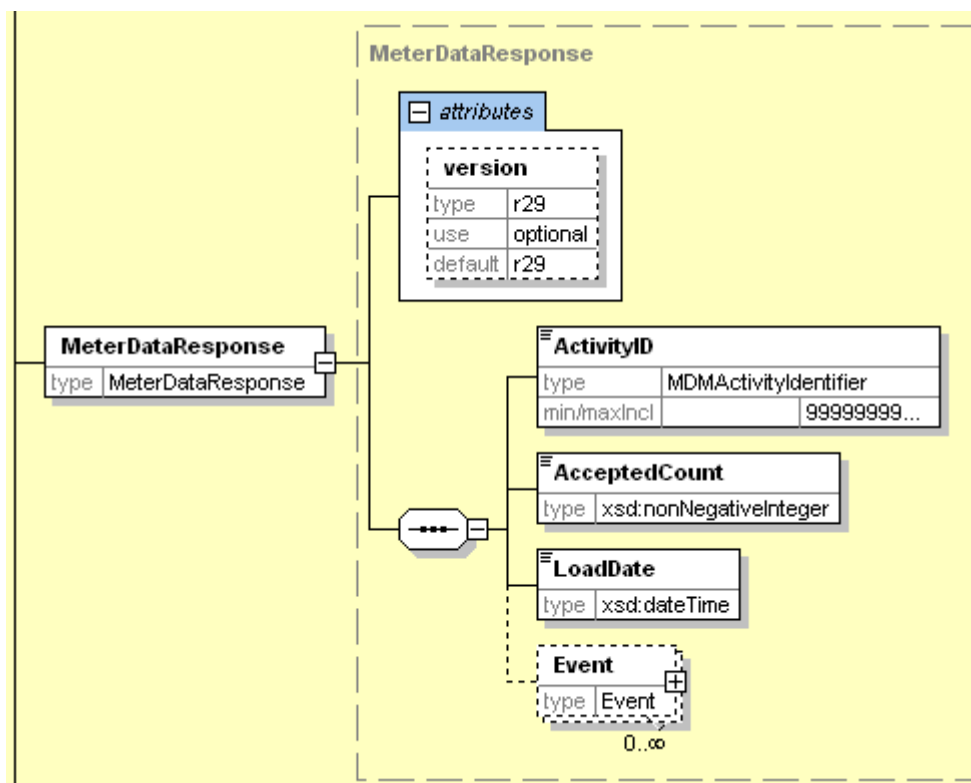


Figure 4-5 MeterDataResponse aseXML schema

XML Sample

```

<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302161344265</MessageID>
  <MessageDate>2012-03-02T15:12:20+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Priority>Medium</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302161220514" transactionDate="2012-03-02T15:12:20+10:00"
initiatingTransactionID="FBS-20120302161220514">
    <MeterDataResponse version="r29">
      <ActivityID>0001</ActivityID>
      <AcceptedCount>3</AcceptedCount>
      <LoadDate>2012-03-02T15:12:20+10:00</LoadDate>
      <Event class="Message" severity="Information">
        <Code>0</Code>
        <KeyInfo>This is the KeyInfo field; Use it for any freetext info, but the limit is 80 cha</KeyInfo>
        <Context>Context</Context>
        <Explanation>All OK</Explanation>
      </Event>
    </MeterDataResponse>
  </Transaction>
</Transactions>

```

4.1.3. Missing Energy Data

The Missing Energy Data transaction is used by a User to request any energy data that has not been received from a Network Operator by the expected date. The Network Operator will obtain the requested data and provide it to the User 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:

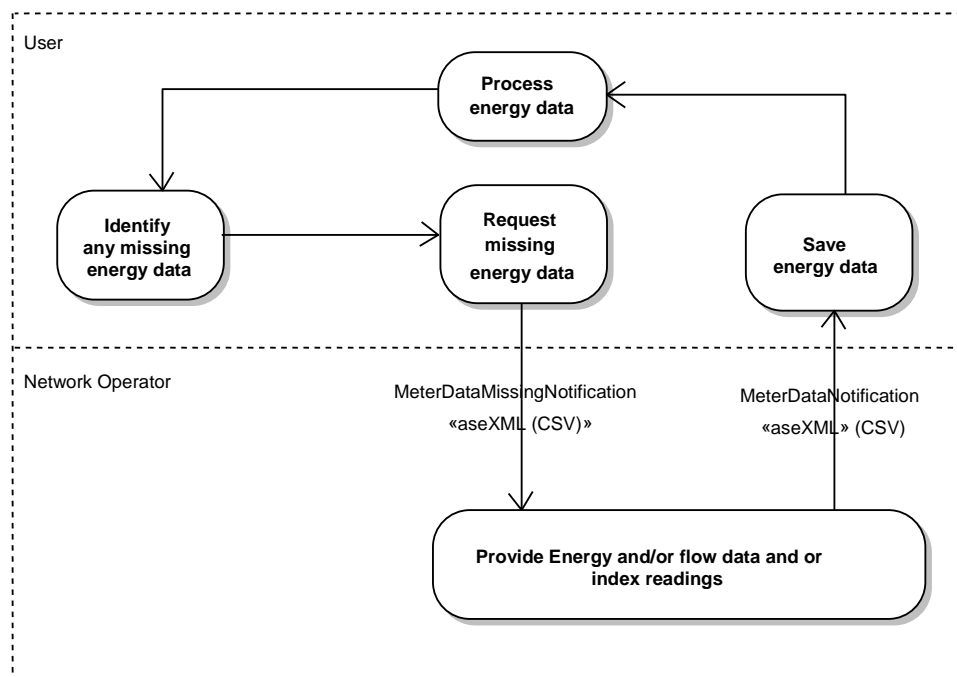


Figure 4-6 Missing Meter Data Activity Diagram

Process Sequence

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

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

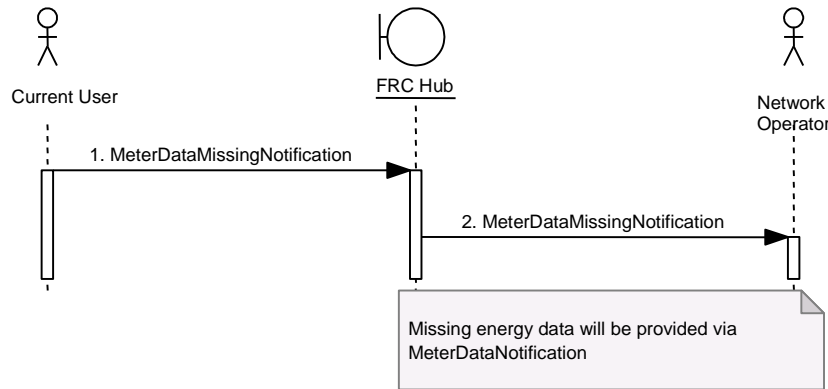


Figure 4-7 Missing Meter Data Sequence Diagram

ID	AseXML Transaction	From Object	To Object	Process Flow
1	MeterDataMissingNotification	Current User	FRC Hub	REQ2
2	MeterDataMissingNotification	FRC Hub	Network Operator	

For a basic meter, the Network Operator 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. . For an interval meter the Network Operator will provide the required data via an INTERVALMETERDATA CSV file. This may be either a special file in response to this request or part of the next scheduled INTERVALMETERDATA CSV file. The data can be downloaded from a secure web site operated by the Network Operator.

Note: There is no defined method for a Network Operator to notify a User of errors in the Missing Data Request transaction (eg. Network Operator is not responsible for requested MIRN). It is a User'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

<i>Transaction Definition Table cross-reference</i>	This interface realises the following transactions from the Transaction Definition Table: <ul style="list-style-type: none"> 49 – User requesting missing meter reading data
<i>Trigger</i>	This interface is triggered when a User determines that expected energy data for a MIRN is overdue.
<i>Pre-conditions</i>	None
<i>Post-conditions</i>	Network Operator has a list of MIRNs for which energy data is required.
<i>Transaction acknowledgment specific event codes</i>	3665, 3666, 3670, 3672, 3674 (Also the generic event codes 3603, 3659, 3662, 3673 can be used)

The MeterDataMissingNotification transaction is used by a User to request overdue energy data from a Network Operator. In SA this transaction is used only for basic meters. In WA, the transaction is used for both basic and interval meters.

Transaction Data Elements

Transaction:		MeterDataMissingNotification
Received From:		User
Sent To:		Network Operator
Data Element	Victoria and SA/WA 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	Victoria and SA/WA Mandatory / Optional / Not Required	Comment
NMI	M	

CSVMissingMeterData/CSVData		
Heading	Victoria and SA/WA Mandatory / Optional / Not Required	Comment
NMI_Checksum	M	
Last_Read_Date	M	The last read on which the meter reads have been supplied to the User 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="Retailer">XXXXXXXXXX</From>
  <To description="Network Operator">XXXXXXXXXX</To>
  <MessageID>RETO-MSG-73645</MessageID>
  <MessageDate>2004-08-01T12:00:00+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="RETO-TXN-46735" transactionDate="2004-08-01T12:00:00+10:00">
    <MeterDataMissingNotification version="r9">
      <CSVMissingMeterData>
        <RecordCount>3</RecordCount>
        <CSVData>
          NMI,NMI_Checksum,Last_Read_Date
          1876546765,3,2004-08-01
          8798767645,5,2004-08-02
          3874958676,6,2004-08-01
        </CSVData>
      </CSVMissingMeterData>
    </MeterDataMissingNotification>
  </Transaction>
</Transactions>

```

4.1.4. Meter Read Input (SA Only)

The Meter Read Input transaction is used by the User to supply a Gas Meter Index reading to a Network Operator. The Network Operator then uses the index data to calculate the consumed energy for the customer. In SA this may occur if a User disconnects a customer for non-payment and uses the Meter Read Input transaction to notify the Network Operator of the Gas Meter Index reading.

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

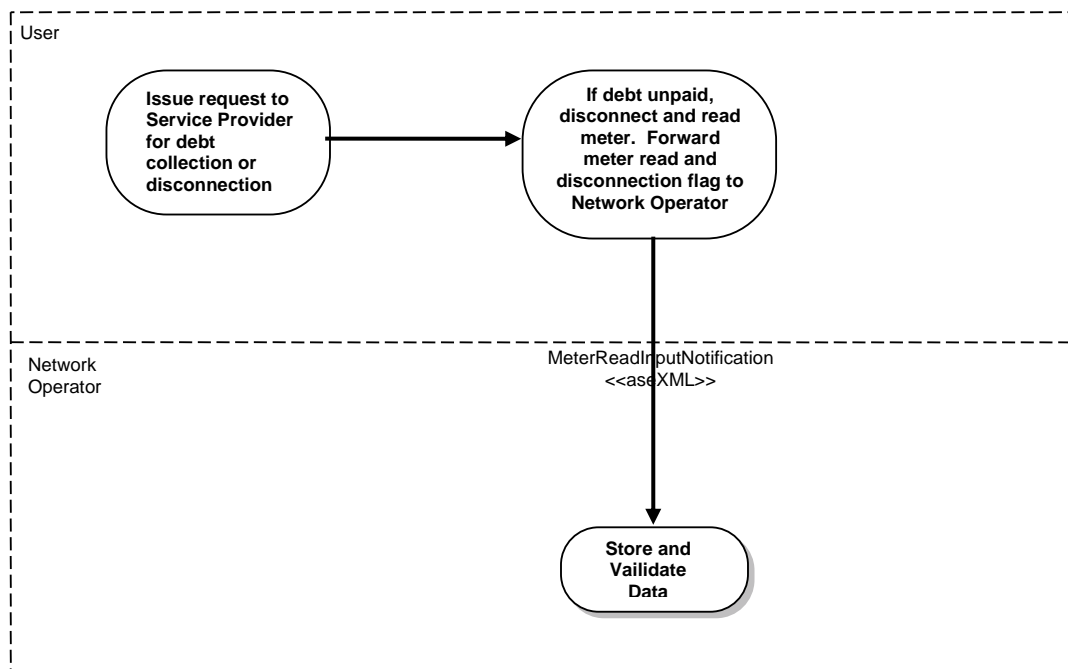


Figure 4-9 Meter Read Input Activity Diagram

Process Sequence

A User will obtain the Meter Index Data on disconnection of a meter. The User uses a MeterReadInputNotification transaction to send the index data to the Network Operator for storage and later use for energy flow calculations.

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

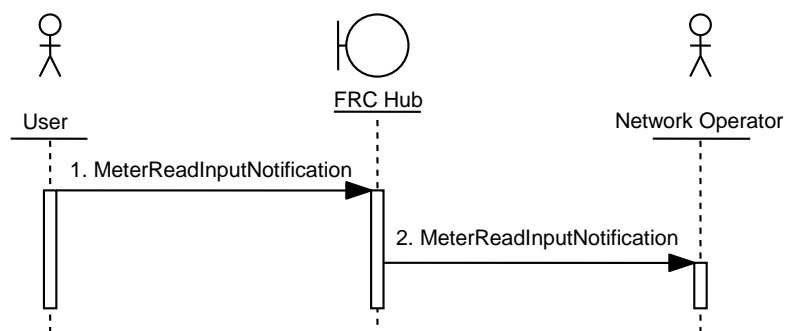


Figure 4-10 Meter Read Input Sequence Diagram (SA only)

ID	AseXML Transaction	From Object	To Object	Process Flow
1	MeterReadInputNotification	User	FRC Hub	MR9B
2	MeterReadInputNotification	FRC Hub	Network Operator	

4.1.4.1. MeterReadInputNotification (SA only)

<i>Transaction Definition Table cross-reference</i>	This interface realises the following transactions from the Transaction Definition Table: <ul style="list-style-type: none"> 15 – Disconnection Read
<i>Trigger</i>	This interface is triggered when a User obtains an index reading from a gas meter.
<i>Pre-conditions</i>	Meter index data is obtained by the User
<i>Post-conditions</i>	Meter index data saved by Network Operator
<i>Transaction acknowledgment specific event codes</i>	None. (The generic event codes 3603, 3659, 3662, 3673 can be used)

The MeterReadInputNotification transaction transfers meter index and read data from the User to the Network Operator.

Transaction Data Elements

Transaction:		MeterReadInputNotification
Received From:		User
Sent To:		Network Operator
Data Element	Victoria and SA 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:

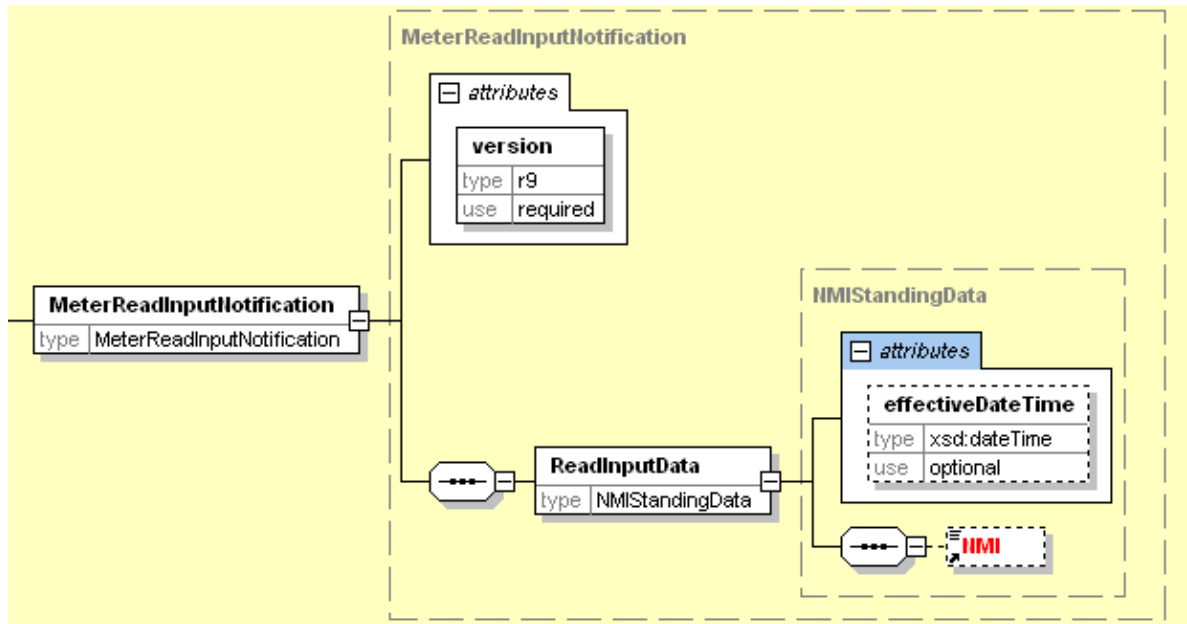


Figure 4-11 MeterReadInputNotification aseXML schema

See section 4.3.2.3 for the format of the GasStandingData type construct.

XML Sample

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302173152110</MessageID>
  <MessageDate>2012-03-02T16:31:44+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Priority>Medium</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302173144172" transactionDate="2012-03-02T16:31:44+10:00">
    <MeterReadInputNotification version="r9">
      <ReadInputData xsi:type="ase:GasStandingData" version="r29">
        <NMI checksum="1">5510419959</NMI>
        <MeterData>
          <MeterSerialNumber>M1234</MeterSerialNumber>
          <MeterStatus>Turned on</MeterStatus>
          <MeterRead>
            <Current>
              <IndexValue>2345</IndexValue>
              <ReadDate>2012-03-02</ReadDate>
              <TypeOfRead>Customer Own Read</TypeOfRead>
            </Current>
          </MeterRead>
        </MeterData>
      </ReadInputData>
    </MeterReadInputNotification>
  </Transaction>
</Transactions>
```


4.1.5. Special Reads

The Special Read transactions manage a requirement by a User to obtain a meter read from a Network Operator outside of the scheduled read for a specific meter.

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

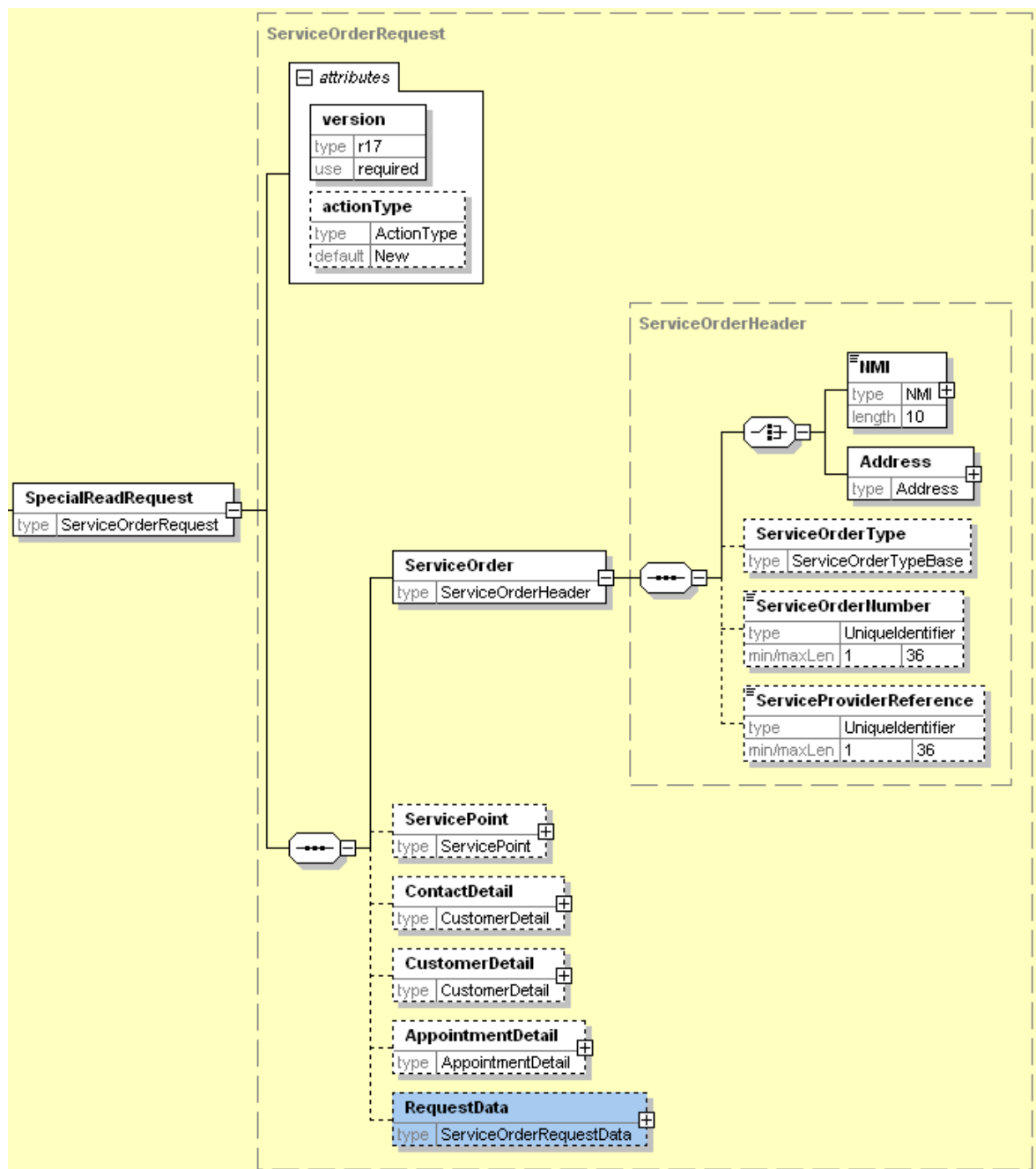


Figure 4-12 Special Reads Activity Diagram

Cancellation Process

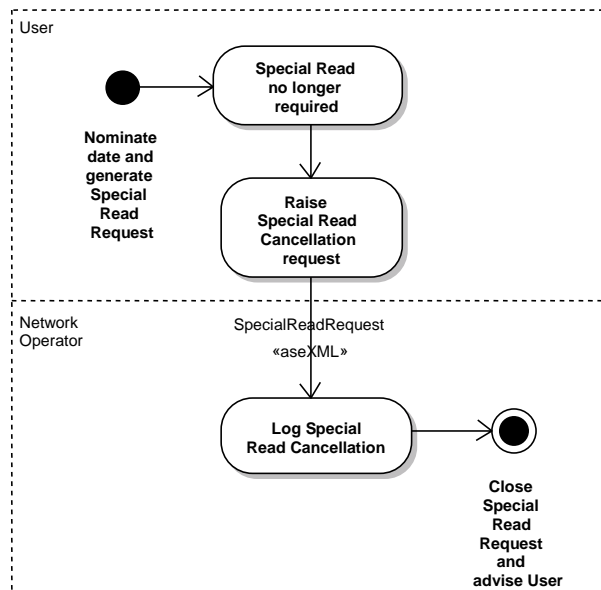


Figure 4-13 Special Read Cancellation Activity Diagram

Process Sequence

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

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

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

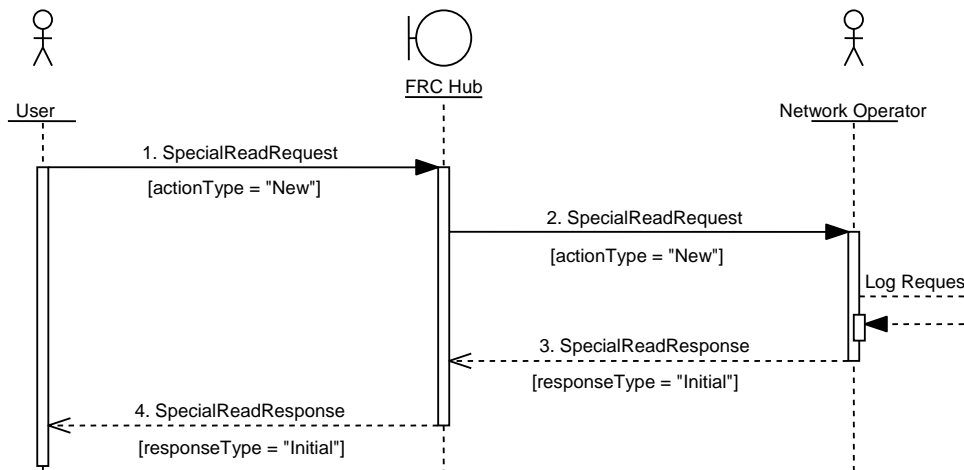


Figure 4-14 Special Read Initiation Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	SpecialReadRequest	User	FRC Hub	MR4A
2	SpecialReadRequest	FRC Hub	Network Operator	
3	SpecialReadResponse	Network Operator	FRC Hub	MR4A
4	SpecialReadResponse	FRC Hub	User	

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

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

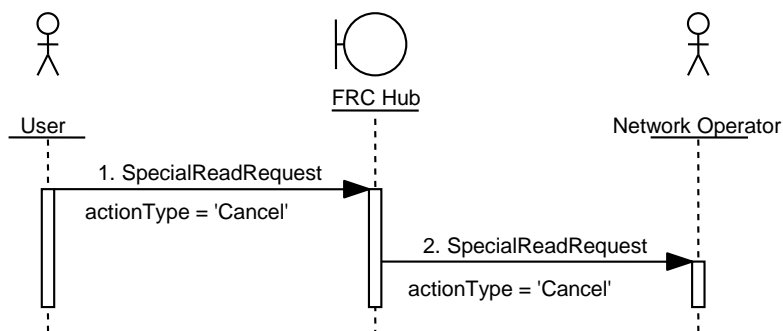


Figure 4-15 Special Read Cancellation Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	SpecialReadRequest	User	FRC Hub	MR4A
2	SpecialReadRequest	FRC Hub	NONetwork Operator	

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

If, in the attempt to carry out the special read, a Network Operator is unable to gain access to the meter, a SpecialReadResponse is forwarded to the User detailing the inability to gain access and the reason why. In this instance, the Special Read Request is deemed to be satisfied, and the User must make another Special Read Request if the read is still required. If a user, other than the current user, requests a special meter read, then the Network Operator must not provide the user with the metering data. The Network Operator must inform the requesting user that no meter reading data was obtained because the network operator was unable to undertake a special meter read.

In the case of a move-in, if (due to inability to obtain access) the Network Operator uses a meter reading that was not requested by the incoming user as the basis for a special read (eg a special read requested by the current user, or a scheduled meter reading), then the notification to the incoming user of the failure to obtain the meter reading, will be via e-mail.

If the Network Operator has received a cancellation notice from the User, the Network Operator will cancel the Special Read and forward a SpecialReadResponse to the User 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:

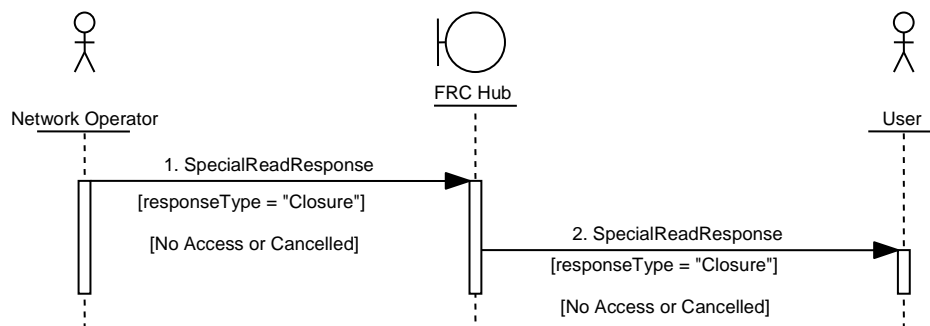


Figure 4-16 Special Read Closure (No Access) Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	SpecialReadResponse	Network Operator	FRC Hub	MR4A
2	SpecialReadResponse	FRC Hub	User	

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

4.1.5.1. **SpecialReadRequest**

<i>Transaction Definition Table cross-reference</i>	This interface realises the following transactions from the Transaction Definition Table: <ul style="list-style-type: none"> 3 – Special Read Request
---	--

<i>Trigger</i>	<ol style="list-style-type: none"> The trigger for this transaction could be: <ol style="list-style-type: none"> Request from customer for a meter read, Requirement for disconnection read by User, or Customer Transfer Change to Special Read requirement
<i>Pre-conditions</i>	<ol style="list-style-type: none"> None Special Read Request has been raised
<i>Post-conditions</i>	<ol style="list-style-type: none"> Network Operator has logged Special Read Request and created Work Request for special read. Network Operator has logged Special Read cancellation
<i>Transaction acknowledgment specific event codes</i>	<p>3601, 3613, 3644, 3675, 3678</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

The SpecialReadRequest transaction is used by a User to request a special meter read from a Network Operator. 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:		User
Sent To:		Network Operator
Data Element	Victoria & SA/WA Mandatory / Optional / Not Required	Usage
actionType	M	<ul style="list-style-type: none"> “New” for new Special Read Request “Cancel” for Special Read Cancellation <p>Implemented as an attribute of the SpecialReadRequest aseXML element.</p>
NMI	M	
Checksum	M	Implemented as an attribute of the NMI aseXML element
SpecialReadReasonCode	M	
ServiceOrderNumber	M	Reference number generated by the User (also referred to as ‘RB Reference Number’)
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 4.2.3.4 for the generic format of the ServiceOrderRequest transaction.

XML Sample

```

<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302181253634</MessageID>
  <MessageDate>2012-03-02T17:12:44+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Priority>Medium</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302181244744" transactionDate="2012-03-02T17:12:44+10:00">
    <SpecialReadRequest version="r17" actionType="New">
      <ServiceOrder>
        <NMI checksum="7">5767656543</NMI>
        <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">

```

```

        <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
      </ServiceOrderType>
      <ServiceOrderNumber>SO-5654311</ServiceOrderNumber>
    </ServiceOrder>
    <ServicePoint>
      <AccessDetails>Knock loudly</AccessDetails>
    </ServicePoint>
    <AppointmentDetail>
      <Preferred>
        <Date>2012-03-09</Date>
      </Preferred>
    </AppointmentDetail>
  </SpecialReadRequest>
</Transaction>
</Transactions>

```

4.1.5.2. SpecialReadResponse

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the Transaction Definition Table:</p> <ul style="list-style-type: none"> • 3A – Special Read Request Response, • 6 – Special Read Request No Access Advice
<i>Trigger</i>	<ol style="list-style-type: none"> 1. Generation of Work Request in response to a MeterDataSpecialReadRequest 2. Special Read Cancelled or Attempted with No Access
<i>Pre-conditions</i>	<ol style="list-style-type: none"> 1. Special Read Request logged by Network Operator 2. Network Operator has closed Work Request
<i>Post-conditions</i>	<ol style="list-style-type: none"> 1. User has a Work Request number from the Network Operator 2. User closes Special Read Request
<i>Transaction acknowledgment specific event codes</i>	<p>3602</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

The SpecialReadResponse transaction provides an initial response to a SpecialReadRequest transaction by supplying a Service Provider Reference number (a reference number provided by the Network Operator) to the requesting User. 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. If the Network Operator has raised the SpecialReadRequest for a transfer request 'Move In' the User will still expect a 'No Access' response if appropriate.

Transaction Data Elements

Transaction:		SpecialReadResponse
Received From:		Network Operator
Sent To:		User
Data Element	Victoria & SA/WA Mandatory / Optional / Not Required	Usage
responseType	M	<ul style="list-style-type: none"> “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
MeterSerialNumber	O	Required for No Access response
ServiceOrderNumber	M	Reference number generated by the User. This is always Required if the User initiated the service order and provided the ServiceOrderNumber. For an implied Special Read Request (for a move in) the ServiceOrderNumber will always equal the transfer request ID allocated by the Market Operator . AEMO .
ServiceProviderReference	M	Reference number generated by the Network Operator
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 4.2.3.5 for the generic format of the ServiceOrderResponse transaction.

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

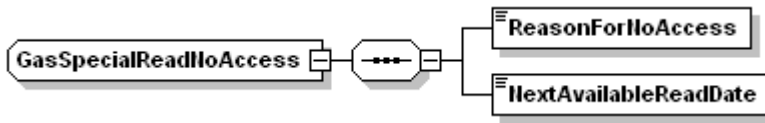


Figure 4-17 GasSpecialReadNoAccess type aseXML schema

XML Sample

Initial Response

```

<Header>
  <From description="Network Operator">XXXXXXXXXX</From>
  <To description="Retailer">XXXXXXXXXX</To>
  <MessageID>NETO-MSG-73645</MessageID>
  <MessageDate>2004-08-01T12:00:00+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="NETO-TXN-46735" transactionDate="2004-08-01T12:00:00+10:00"
  initiatingTransactionID="RETO-TXN-463547">
    <SpecialReadResponse version="r13" responseType="Initial">
      <ServiceOrder>
        <NMI checksum="2">3746584765</NMI>
        <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
          <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
        </ServiceOrderType>
        <ServiceOrderNumber>SO8765</ServiceOrderNumber>
        <ServiceProviderReference>WR1234</ServiceProviderReference>
      </ServiceOrder>
    </SpecialReadResponse>
  </Transaction>
</Transactions>
  
```

No Access Response

```

<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302181501293</MessageID>
  <MessageDate>2012-03-02T17:14:47+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Priority>Low</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302181447746" transactionDate="2012-03-
  02T17:14:47+10:00" initiatingTransactionID="BLA-5fu0430v6231kv8h00000hag">
    <SpecialReadResponse version="r17" responseType="Closure">
      <ServiceOrder>
        <NMI checksum="7">5767656543</NMI>
        <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
          <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
          <MeterSerialNumber>M1234</MeterSerialNumber>
        </ServiceOrderType>
        <ServiceOrderNumber>SO-5654311</ServiceOrderNumber>
        <ServiceProviderReference>WR-787654</ServiceProviderReference>
      </ServiceOrder>
      <AppointmentDetail>
        <Preferred>
          <Date>2012-03-09</Date>
        </Preferred>
      </AppointmentDetail>
    </SpecialReadResponse>
  </Transaction>
</Transactions>
  
```

```

        <NotificationData xsi:type="ase:GasServiceOrderNotificationData" version="r13">
          <NoAccess>
            <SpecialReadNoAccess>
              <ReasonForNoAccess>Gate Locked</ReasonForNoAccess>
              <NextAvailableReadDate>2012-03-16</NextAvailableReadDate>
            </SpecialReadNoAccess>
          </NoAccess>
        </NotificationData>
      </SpecialReadResponse>
    </Transaction>
  </Transactions>

```

Special Read Cancellation Process

Cancellation of a Special Read

If the User identifies that the Special Read is no longer required, the User will forward a SpecialReadRequest transaction to the Network Operator with the actionType set to "Cancel" to identify that this is a cancellation.

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

The response will contain a responseType set to "Closure" to identify that the Special Read is closed.

Examples of aseXML transactions

SpecialReadRequest – Original Request

```

<?xml version="1.0" encoding="UTF-8"?>
<ase:aseXML xmlns:ase="urn:aseXML:r13" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r13 http://www.nemmco.com.au/aseXML/schemas/r13/aseXML_r13.xsd">
  <Header>
    <From description="Alinta Sales">ALS</From>
    <To description="Alinta Networks">ALN</To>
    <MessageID>ALS-MSG-73645</MessageID>
    <MessageDate>2004-07-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>WAGAS</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="ALS-TXN-46735" transactionDate="2004-07-01T12:00:00+10:00">
      <SpecialReadRequest version="r12" actionType="New">
        <ServiceOrder>
          <NMI checksum="2">3746584765</NMI>
          <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
            <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
          </ServiceOrderType>
          <ServiceOrderNumber>SO8765</ServiceOrderNumber>
        </ServiceOrder>
        <ServicePoint>
          <AccessDetails>Be careful</AccessDetails>
        </ServicePoint>
        <AppointmentDetail>
          <Preferred>
            <Date>2004-07-05</Date>
          </Preferred>
        </AppointmentDetail>
      </SpecialReadRequest>
    </Transaction>
  </Transactions>

```

```
</Transactions>
</ase:aseXML>
```

SpecialReadResponse – Initial Response

```
<?xml version="1.0" encoding="UTF-8"?>
<ase:aseXML xmlns:ase="urn:aseXML:r13" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r13 http://www.nemmco.com.au/aseXML/schemas/r13/aseXML_r13.xsd">
  <Header>
    <From description="Alinta Networks">ALN</From>
    <To description="Alinta Sales">ALS</To>
    <MessageID>ALN-MSG-12345</MessageID>
    <MessageDate>2004-07-01T14:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>WAGAS</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="ALN-TXN-12345" transactionDate="2004-07-01T14:00:00+10:00"
initiatingTransactionID="ALS-TXN-46735">
      <SpecialReadResponse version="r13" responseType="Initial">
        <ServiceOrder>
          <NMI checksum="2">3746584765</NMI>
          <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
            <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
          </ServiceOrderType>
          <ServiceOrderNumber>SO8765</ServiceOrderNumber>
          <ServiceProviderReference>WR1234</ServiceProviderReference>
        </ServiceOrder>
      </SpecialReadResponse>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

SpecialReadRequest – Cancellation Request

The Cancellation Request has an actionType of 'Cancel' and has the same ServiceOrderNumber as original request.

```
<?xml version="1.0" encoding="UTF-8"?>
<ase:aseXML xmlns:ase="urn:aseXML:r13" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r13 http://www.nemmco.com.au/aseXML/schemas/r13/aseXML_r13.xsd">
  <Header>
    <From description="Alinta Sales">ALS</From>
    <To description="Alinta Networks">ALN</To>
    <MessageID>ALS-MSG-99999</MessageID>
    <MessageDate>2004-07-02T12:00:00+10:00</MessageDate>
    <TransactionGroup>MDMT</TransactionGroup>
    <Market>WAGAS</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="ALS-TXN-99999" transactionDate="2004-07-02T12:00:00+10:00">
      <SpecialReadRequest version="r12" actionType="Cancel">
        <ServiceOrder>
          <NMI checksum="2">3746584765</NMI>
          <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
            <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
          </ServiceOrderType>
          <ServiceOrderNumber>SO8765</ServiceOrderNumber>
        </ServiceOrder>
        <ServicePoint>
          <AccessDetails>Be careful</AccessDetails>
        </ServicePoint>
        <AppointmentDetail>
          <Preferred>
            <Date>2004-07-05</Date>
          </Preferred>
        </AppointmentDetail>
      </SpecialReadRequest>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

```

        </SpecialReadRequest>
    </Transaction>
</Transactions>
</ase:aseXML>

```

SpecialReadResponse –Response Confirming Cancellation

The Response confirming cancellation has a responseType of 'Closure'. It has same Service Order Number as both of the requests, the same ServiceProviderReference as the initial response, but has the initiatingTransactionID of the Cancellation Request.

```

<?xml version="1.0" encoding="UTF-8"?>
<ase:aseXML xmlns:ase="urn:aseXML:r13" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:aseXML:r13 http://www.nemmco.com.au/aseXML/schemas/r13/aseXML_r13.xsd">
    <Header>
        <From description="Alinta Networks">ALN</From>
        <To description="Alinta Sales">ALS</To>
        <MessageID>ALN-MSG-67891</MessageID>
        <MessageDate>2004-07-02T14:00:00+10:00</MessageDate>
        <TransactionGroup>MDMT</TransactionGroup>
        <Market>WAGAS</Market>
    </Header>
    <Transactions>
        <Transaction transactionID="ALN-TXN-67891" transactionDate="2004-07-02T14:00:00+10:00"
initiatingTransactionID="ALS-TXN-99999">
            <SpecialReadResponse version="r13" responseType="Closure">
                <ServiceOrder>
                    <NMI checksum="2">3746584765</NMI>
                    <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
                        <SpecialReadReasonCode>Final Read</SpecialReadReasonCode>
                    </ServiceOrderType>
                    <ServiceOrderNumber>SO8765</ServiceOrderNumber>
                    <ServiceProviderReference>WR1234</ServiceProviderReference>
                </ServiceOrder>
            </SpecialReadResponse>
        </Transaction>
    </Transactions>
</ase:aseXML>

```

4.1.6. Meter Data Verification

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

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

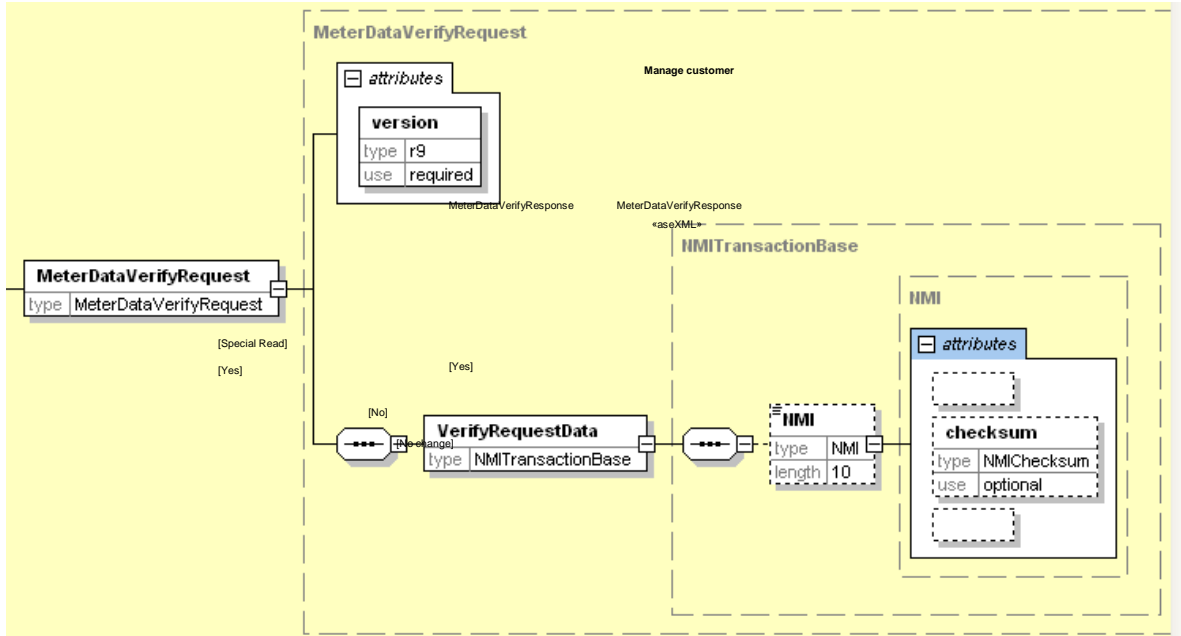


Figure 4-18 Meter Data Verification Activity Diagram

Process Sequence

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

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

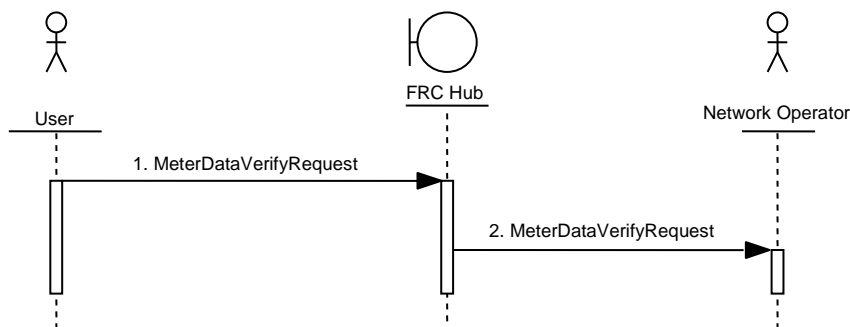


Figure 4-19 Meter Data Verification Request Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	MeterDataVerifyRequest	User	FRC Hub	REQ1
2	MeterDataVerifyRequest	FRC Hub	Network Operator	

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

When the Network Operator has determined the correct meter data a MeterDataVerifyResponse transaction is generated and forwarded to the User. 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 User 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 Network Operator to obtain the adjusted data, the Current Read Date may differ from that provided in the superseded data. The User 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:

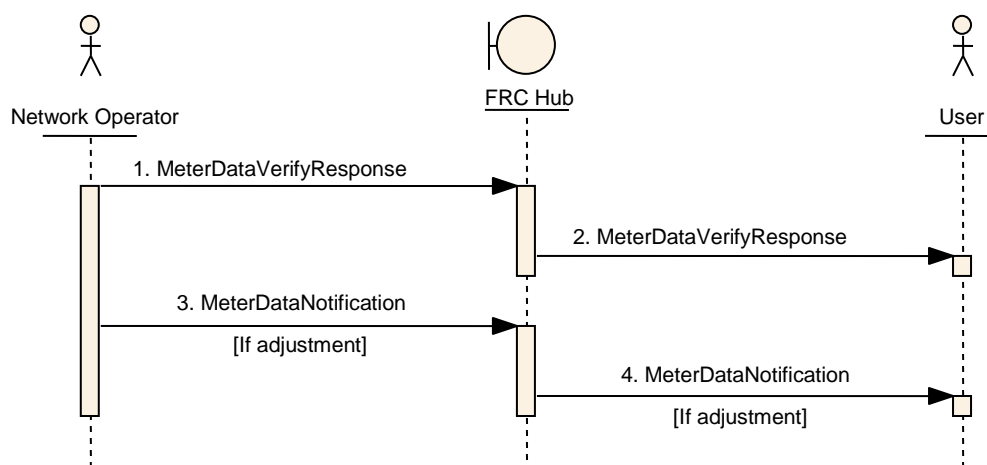


Figure 4-20 Meter Data Verification Response Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	MeterDataVerifyResponse	Network Operator	FRC Hub	REQ1
2	MeterDataVerifyResponse	FRC Hub	User	
3	MeterDataNotification (if adjusted)	Network Operator	FRC Hub	REQ1
4	MeterDataNotification (if adjusted)	FRC Hub	User	

4.1.6.1. MeterDataVerifyRequest

<i>Transaction Definition Table cross-reference</i>	This interface realises the following transactions from the Transaction Definition Table: <ul style="list-style-type: none"> 242 – Meter Data Verification Request
<i>Trigger</i>	The trigger for this transaction could be: <ul style="list-style-type: none"> a customer complaint an anomaly identified by the User
<i>Pre-conditions</i>	Perceived inconsistency in a User's energy data
<i>Post-conditions</i>	Network Operator has logged a requirement for data verification.
<i>Transaction acknowledgment specific event codes</i>	3646, 3647, 3671 (Also the generic event codes 3603, 3659, 3662, 3673 can be used)

The MeterDataVerifyRequest transaction is used by a User to request confirmation of energy data as supplied by a Network Operator.

Transaction Data Elements

Transaction:		MeterDataVerifyRequest
Received From:		User
Sent To:		Network Operator
Data Element	Victoria and SA/WA 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 User
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:

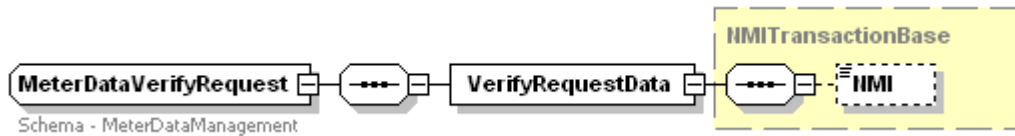


Figure 4-21 MeterDataVerifyRequest aseXML schema

The GasMeterVerifyRequestData type construct is in the following format:

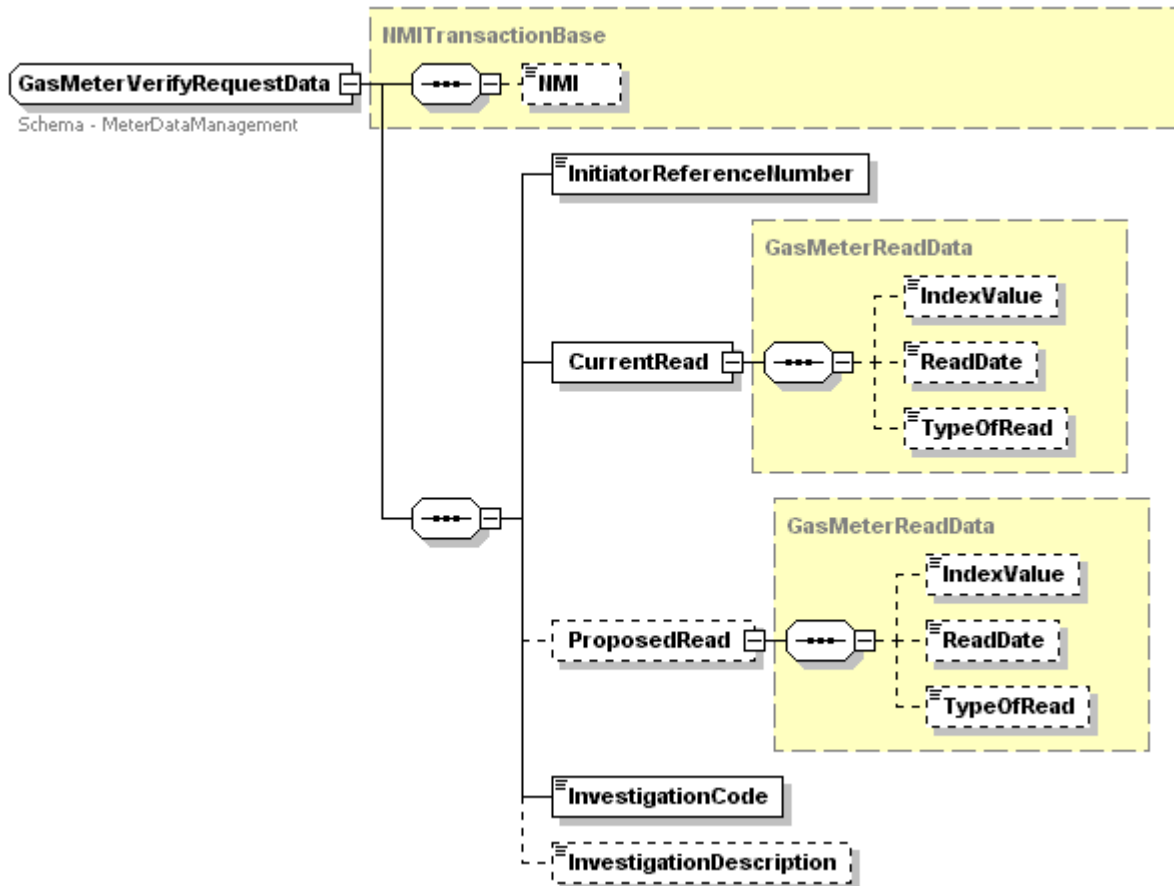


Figure 4-22 GasMeterVerifyRequestData type aseXML schema

XML Sample

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302161644328</MessageID>
  <MessageDate>2012-03-02T15:16:32+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Priority>Medium</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302161632844" transactionDate="2012-03-02T15:16:32+10:00">
    <MeterDataVerifyRequest version="r9">
      <VerifyRequestData xsi:type="ase:GasMeterVerifyRequestData" version="r17">
        <NMI checksum="7">5767656543</NMI>
      </VerifyRequestData>
    </MeterDataVerifyRequest>
  </Transaction>
</Transactions>
```



```

<InitiatorReferenceNumber>SO-5654311</InitiatorReferenceNumber>
<CurrentRead>
  <IndexValue>12300</IndexValue>
  <ReadDate>2011-12-15</ReadDate>
</CurrentRead>
<ProposedRead>
  <IndexValue>12284</IndexValue>
  <ReadDate>2012-01-26</ReadDate>
</ProposedRead>
<InvestigationCode>Customer Away</InvestigationCode>
<InvestigationDescription>Customer was on holiday for 3 weeks</InvestigationDescription>
</VerifyRequestData>
</MeterDataVerifyRequest>
</Transaction>
</Transactions>

```

4.1.6.2. MeterDataVerifyResponse

<i>Transaction Definition Table cross-reference</i>	This interface realises the following transactions from the Transaction Definition Table: <ul style="list-style-type: none"> 243 – Meter Data Verification Response
<i>Trigger</i>	The trigger for this transaction is a completed investigation following the receipt of a MeterDataGasVerifyDataRequest transaction
<i>Pre-conditions</i>	Network Operator has a confirmed meter index reading
<i>Post-conditions</i>	User has a confirmed meter index reading
<i>Transaction acknowledgment specific event codes</i>	3602 (Also the generic event codes 3603, 3659, 3662, 3673 can be used)

The MeterDataVerifyResponse transaction is used by a Network Operator to respond to a MeterDataVerifyRequest from a User.

Transaction Data Elements

Transaction:		MeterDataVerifyResponse
Received From:		Network Operator
Sent To:		User
Data Element	Victoria & SA/WA 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

Transaction:		MeterDataVerifyResponse
Received From:		Network Operator
Sent To:		User
Data Element	Victoria & SA/WA Mandatory / Optional / Not Required	Usage
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:

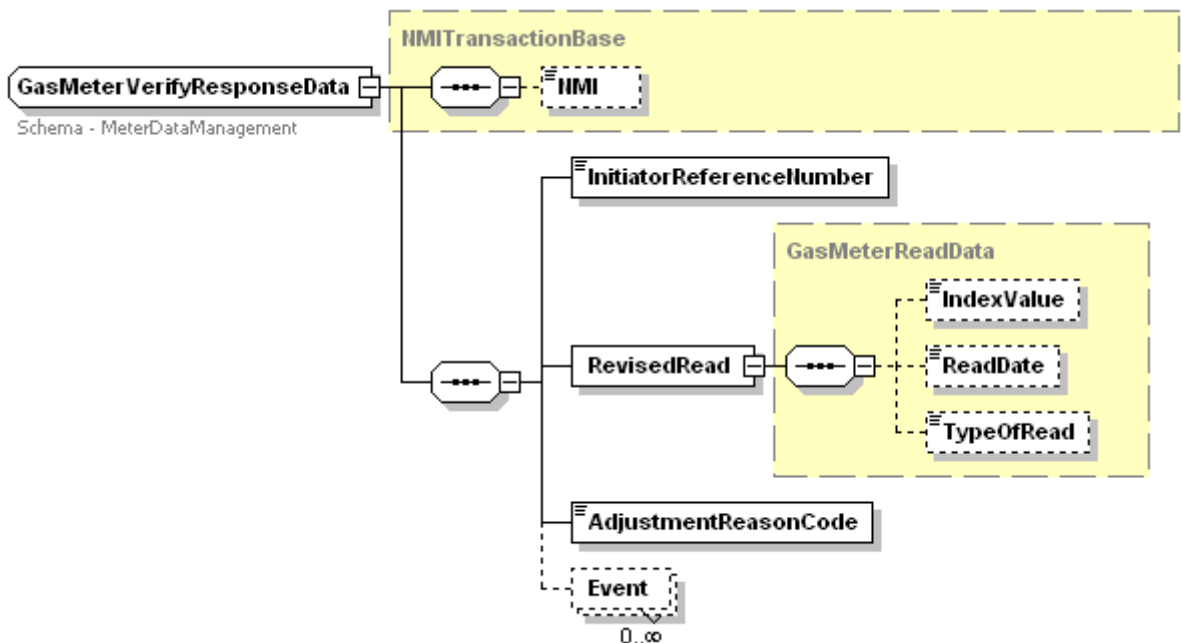


Figure 4-24 GasMeterVerifyResponseData type aseXML schema

XML Sample

Adjustment Required

```
<Header>
  <From description="Network Operator">XXXXXXXXXX</From>
  <To description="Retailer">XXXXXXXXXX</To>
  <MessageID>NETO-MSG-73645</MessageID>
  <MessageDate>2004-08-01T12:00:00+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="NETO-TXN-46735" transactionDate="2004-08-01T12:00:00+10:00"
initiatingTransactionID="RETO-TXN-463547">
    <MeterDataVerifyResponse version="r9">
      <VerifyResponseData xsi:type="ase:GasMeterVerifyResponseData" version="r13">
        <NMI checksum="3">2837465876</NMI>
        <InitiatorReferenceNumber>R54326</InitiatorReferenceNumber>
        <RevisedRead>
          <IndexValue>200</IndexValue>
          <ReadDate>2004-08-01</ReadDate>
        </RevisedRead>
        <AdjustmentReasonCode>Over Estimate</AdjustmentReasonCode>
      </VerifyResponseData>
    </MeterDataVerifyResponse>
  </Transaction>
</Transactions>
```

No Adjustment Required

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302172017105</MessageID>
  <MessageDate>2012-03-02T16:20:03+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Priority>Low</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302172003886" transactionDate="2012-03-
02T16:20:03+10:00" initiatingTransactionID="BLA-5fu0430v6231kv8h00000hag">
    <MeterDataVerifyResponse version="r9">
      <VerifyResponseData xsi:type="ase:GasMeterVerifyResponseData" version="r13">
        <NMI checksum="7">5767656543</NMI>
        <InitiatorReferenceNumber>SO-5654311</InitiatorReferenceNumber>
        <RevisedRead>
          <IndexValue>12345</IndexValue>
          <ReadDate>2012-03-02</ReadDate>
        </RevisedRead>
        <AdjustmentReasonCode>No Change</AdjustmentReasonCode>
      </VerifyResponseData>
    </MeterDataVerifyResponse>
  </Transaction>
</Transactions>
```

4.1.7. Account Creation

When a customer transfers to a new (incoming) User the Network Operator passes the necessary data to the incoming User to enable that User to create an account for the customer (note: in South Australia, part of the data required by Users is provided through the MIRN Discovery Process). The Account Creation transaction contains some meter read data and some site data. The outgoing User is provided with the final meter read data as part of the process. Account Creation transactions are provided for both basic and interval meters.

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

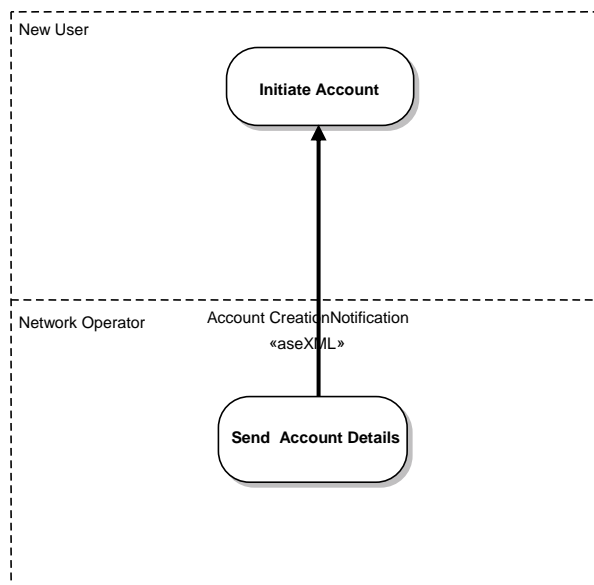


Figure 4-25 Account Creation Activity Diagram

Process Sequence

When a Network Operator receives confirmation from ~~the Market Operator~~ [AEMO](#) that the customer's transfer has been approved, the Network Operator forwards the required data to the incoming User via an AccountCreationNotification transaction. As part of this process, the final read energy record is forwarded to the current User /old User via a MeterDataNotification transaction.

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

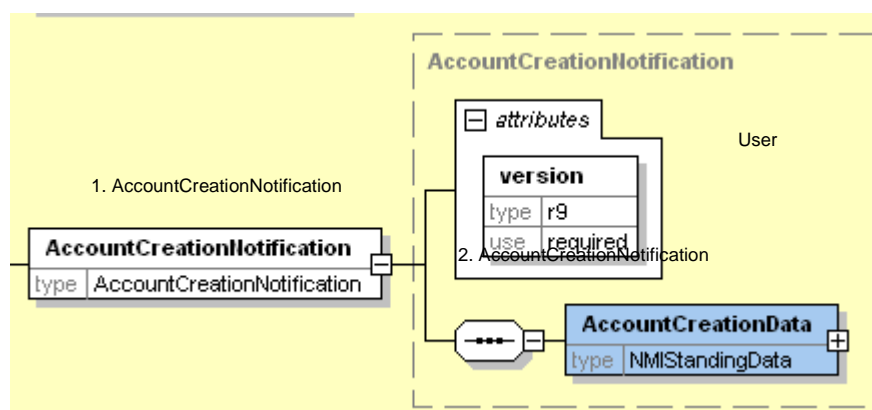


Figure 4-26 Account Creation Sequence Diagram

ID	AseXML Transaction	From Object	To Object	Process Flow
1	AccountCreationNotification	Network Operator	FRC Hub	MR5
2	AccountCreationNotification	FRC Hub	Incoming User/New User	

4.1.7.1. AccountCreationNotification

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the Transaction Definition Table:</p> <ul style="list-style-type: none"> 12 – Account Creation transaction, 231 – Account Creation transaction
<i>Trigger</i>	Network Operator receives a <i>transfer confirmation</i> from the Market Operator AEMO
<i>Pre-conditions</i>	Customer transfer request has been fully approved
<i>Post-conditions</i>	Incoming User/New User has required data to initiate an account.
<i>Transaction acknowledgment specific event codes</i>	<p>3669</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

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

Transaction Data Elements

Transaction:		AccountCreationNotification	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
NMI	M	M	
Checksum	M	M	Implemented as an attribute of the NMI aseXML element
MeterSerialNumber	M	M	
MeterTypeSizeCode	M	M	
Current/ IndexValue	M	M	For interval meters this must be '0' irrespective of the actual index meter read (WA only)
Current/ ReadDate	M	M	For interval meters this will be set to the transfer date (WA only)
ScheduledReadingDay Number	M	M	For interval meters this will be '00' (WA only)
AccessDetails	O	O	Optional data that will be provided if available

Transaction:		AccountCreationNotification	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
MelwayGridReference	O	O	Optional data that will be provided if available. NR in WA or SA.
MeterPosition	O	O	Optional data that will be provided if available
Address	O	Not Included	Required in WA. Not required in SA
DistributionTariff	O	Not Included	Required in WA. Not required in SA.
Heating Value Zone	O	Not Included	Required in WA. Not required in SA.
Transmission Zone	O	Not Included	Required in WA. Not required in SA.
MIRNStatus	O	Not Included	Required in WA. Not required in SA
PressureCorrection Factor	O	Not Included	Required in WA. Not required in SA
DogCode	O	Not Included	Required in WA. Not required in SA

In the above transaction, the elements shown as 'Not required' in SA are provided through MIRN Discovery.

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:

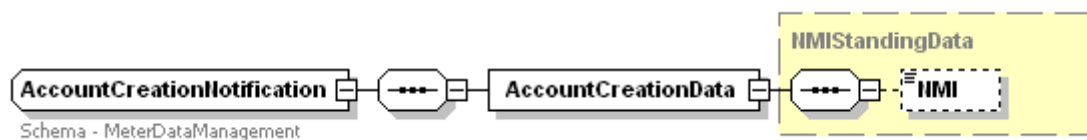


Figure 4-27 AccountCreationNotification aseXML schema

See section 4.3.2.3 for the format of the GasStandingData type construct.

XML Sample

SA sample

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302150516961</MessageID>
  <MessageDate>2012-03-02T14:05:05+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Priority>Medium</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302150505633" transactionDate="2012-03-02T14:05:05+10:00">
    <AccountCreationNotification version="r9">
      <AccountCreationData xsi:type="ase:GasStandingData" version="r29">
        <NMI checksum="7">5767656543</NMI>
        <MasterData>
          <DistributionTariff>1V3N</DistributionTariff>
          <TransmissionZone>12</TransmissionZone>
          <HeatingValueZone>161</HeatingValueZone>
          <MIRNStatus>Commissioned</MIRNStatus>
        </MasterData>
        <MeterData>
          <MeterSerialNumber>M12345</MeterSerialNumber>
          <PressureCorrectionFactor>1.0</PressureCorrectionFactor>
          <MeterTypeSizeCode>BI4</MeterTypeSizeCode>
          <MeterRead>
            <Current>
              <IndexValue>54345</IndexValue>
              <ReadDate>2012-03-02</ReadDate>
            </Current>
          </MeterRead>
          <BasicMeter>
            <ScheduledReadingDayNumber>23</ScheduledReadingDayNumber>
          </BasicMeter>
        </MeterData>
        <SiteData>
          <Address>
            <AustralianAddress>
              <StructuredAddress>
                <House>
                  <HouseNumber>1</HouseNumber>
                  <HouseNumberSuffix>A</HouseNumberSuffix>
                </House>
                <Street>
                  <StreetName>High</StreetName>
                  <StreetType>ST</StreetType>
                </Street>
              </StructuredAddress>
              <SuburbOrPlaceOrLocality>Brompton</SuburbOrPlaceOrLocality>
              <StateOrTerritory>SA</StateOrTerritory>
              <PostCode>5007</PostCode>
            </AustralianAddress>
          </Address>
          <AccessDetails>Access information</AccessDetails>
          <DogCode>No Dog</DogCode>
          <MeterPosition>BY</MeterPosition>
        </SiteData>
      </AccountCreationData>
    </AccountCreationNotification>
  </Transaction>
</Transactions>
```

WA sample (with additional data elements)

```

<Header>
  <From description="Network Operator">XXXXXXXXXX</From>
  <To description="Retailer">XXXXXXXXXX</To>
  <MessageID>NETO-MSG-73645</MessageID>
  <MessageDate>2002-01-01T12:00:00+10:00</MessageDate>
  <TransactionGroup>MDMT</TransactionGroup>
  <Market>WAGAS</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="r13">
        <NMI checksum="3">2456765432</NMI>
        <MasterData>
          <DistributionTariff>1A1R</DistributionTariff>
          <TransmissionZone>11</TransmissionZone>
          <HeatingValueZone>121</HeatingValueZone>
          <MIRNStatus>Commissioned</MIRNStatus>
        </MasterData>
        <MeterData>
          <MeterSerialNumber>M1234</MeterSerialNumber>
          <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
          <MeterTypeSizeCode>BM1</MeterTypeSizeCode>
          <MeterRead>
            <Current>
              <IndexValue>0</IndexValue>
              <ReadDate>2004-07-11</ReadDate>
            </Current>
          </MeterRead>
          <BasicMeter>
            <ScheduledReadingDayNumber>23</ScheduledReadingDayNumber>
          </BasicMeter>
        </MeterData>
        <SiteData>
          <Address>
            <AustralianAddress>
              <StructuredAddress>
                <House>
                  <HouseNumber>45</HouseNumber>
                </House>
                <Street>
                  <StreetName>StGeorges</StreetName>
                  <StreetType>ST</StreetType>
                </Street>
              </StructuredAddress>
              <SuburbOrPlaceOrLocality>Perth</SuburbOrPlaceOrLocality>
              <StateOrTerritory>WA</StateOrTerritory>
              <PostCode>6000</PostCode>
            </AustralianAddress>
          </Address>
          <AccessDetails>Be careful</AccessDetails>
          <MeterPosition>BY</MeterPosition>
        </SiteData>
      </AccountCreationData>
    </AccountCreationNotification>
  </Transaction>
</Transactions>

```


4.2. Service Orders

4.2.1. Overview

Service Orders are the transactions between Users and Network Operators 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
	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.

In general, Service Orders transactions are used by a User to request services other than Meter Reads from a Network Operator. The following section addresses that scenario.

However, Service Orders may also be:

- Generated by a Network Operator to as a result of a previous Service Order raised by User, but where additional or different work is required in the field to that required in the User's original request,
- Implied as a result of receiving a transfer request from a User. If, for example, the service requires recommissioning to effect a transfer,
- Generated by a Network Operator for internal purposes.

The subsequent section addresses these alternative scenarios.

Finally, the two remaining sections address:

- Time Expired Meters
- Mains/Service Renewal

4.2.2. Service Orders Generated by Users

This section applies to those Service Orders generated by Users. The high level process for User-generated Service Orders is shown in the following activity diagram.

Normal Process

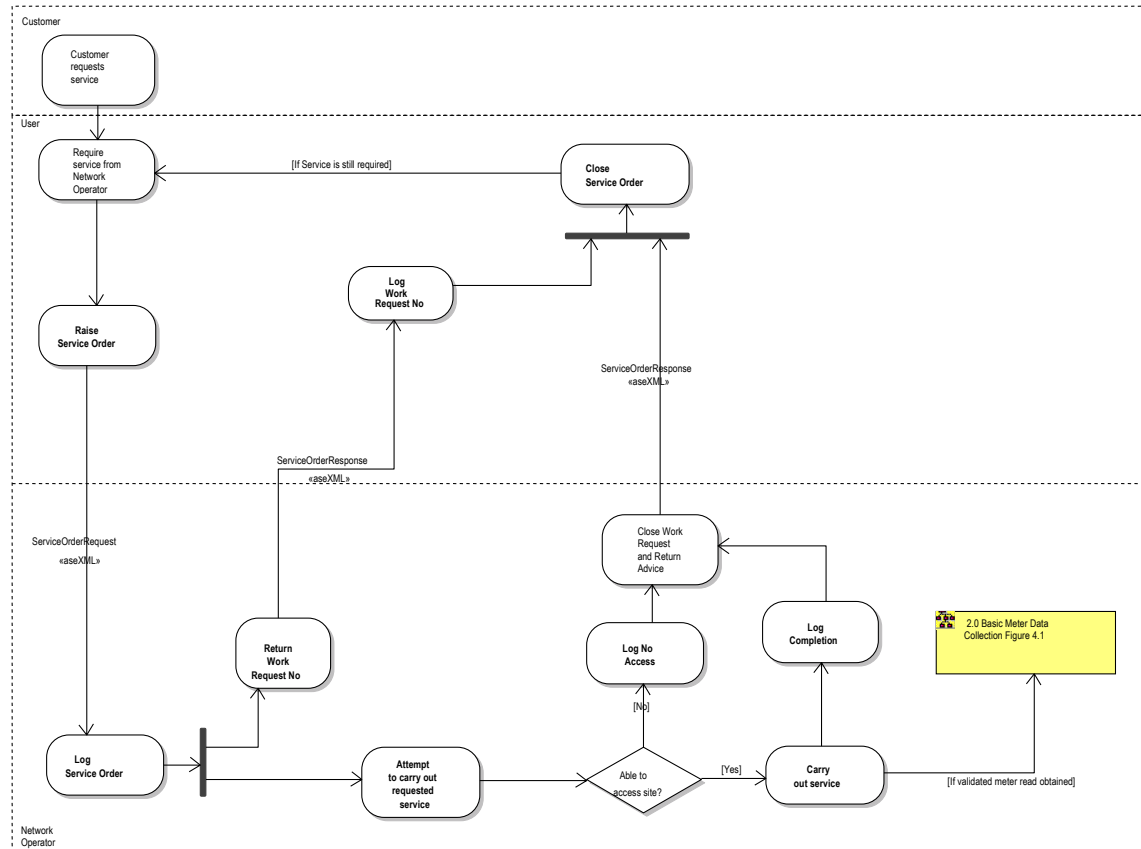


Figure 4-28 Service Orders Normal Activity Diagram

Cancellation Process

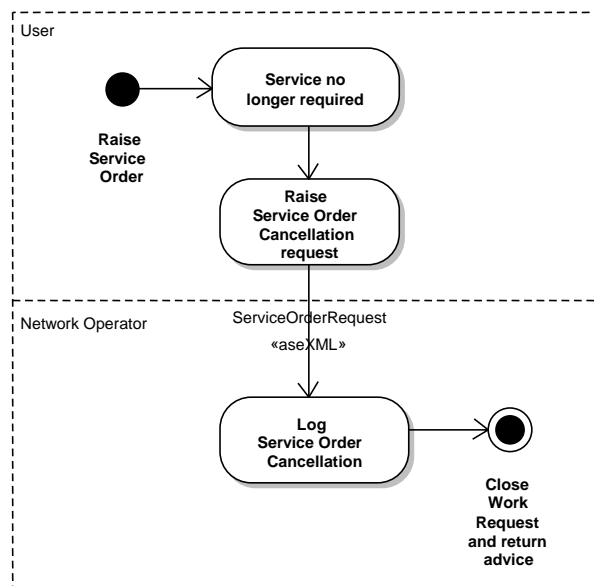


Figure 4-29 Service Orders Cancellation Activity Diagram

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

When the Network Operator has received and logged the ServiceOrderRequest the Network Operator will generate a Work Request Number and return this number to the User for reference via a ServiceOrderResponse transaction. The response will contain a responseType set to "Initial" to identify that this is an initial response. The Network Operator will then attempt to satisfy the Service Order.

Note: Service order processes related to new connections for Industrial and Commercial (I&C) customers may not follow the steps in the above process diagram. For information on the South Australian process for I&C customers, see process flows in the 'FRC B2B Process Flow Diagrams' document.

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

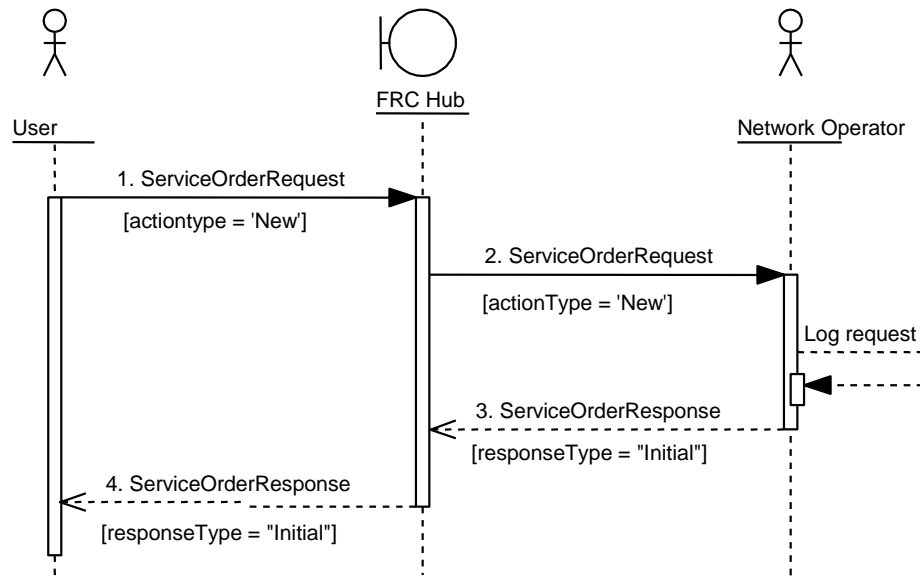


Figure 4-30 Service Order Initiation Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	ServiceOrderRequest	User	FRC Hub	REQ5A
2	ServiceOrderRequest	FRC Hub	Network Operator	
3	ServiceOrderResponse	Network Operator	FRC Hub	REQ5A
4	ServiceOrderResponse	FRC Hub	User	

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

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

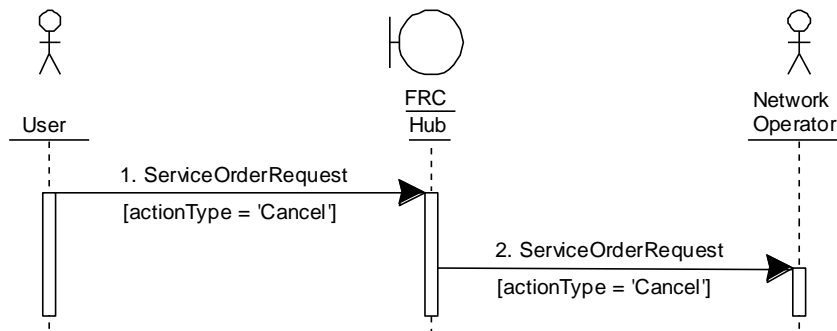


Figure 4-31 Service Order Cancellation Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	ServiceOrderRequest	User	FRC Hub	REQ5A
2	ServiceOrderRequest	FRC Hub	Network Operator	

Modification of a Service Order

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

Grounds for the Network Operator to Reject a Service Request

In certain circumstances, the Network Operator may reject a service request. When rejecting a request, the Network Operator will reply to the ServiceOrderRequest with a negative acknowledgement. Where required by the market ~~rules~~procedures, this will have an event code describing the reason for the rejection of this service request.

No Access to Meter/Site

If, in the attempt to satisfy the Service Order, a Network Operator is unable to gain access to the site or meter, the Network Operator will forward a ServiceOrderResponse to the User detailing the inability to gain access and the reason why (using job completion codes). In this instance the Service Order Request is deemed to be satisfied, and the User must make another Service Order Request if the work is still required.

Cancellation of Service Requests by the User

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

Successful Completion of Service Request

If the Network Operator is able to complete the Service Order a ServiceOrderResponse transaction is forwarded to the User with the job conclusion details. The Service Order Response will contain the transaction ID of the original Request to enable the Retailer to link the Request and Response transactions together. This transaction ID is contained in the 'initiating transaction ID field' of the transaction header of the Service Order Response.

The Network Operator will provide the User with the "Service Order Completion" transaction for all Network Operator-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.

Obtaining Meter Readings

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 forwarded to the User via a MeterDataNotification transaction. The relevant meter read index values are also always provided in the Service Order Response transaction. The diagram below shows the sequence of events for this transaction:

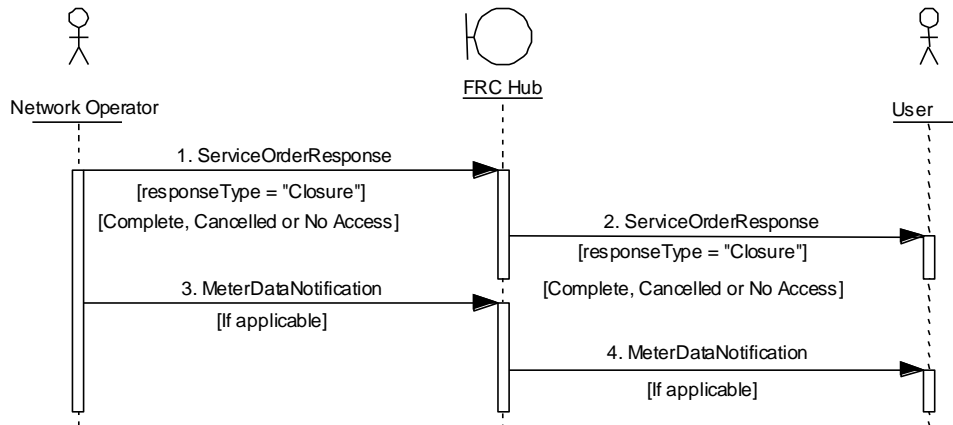


Figure 4-32 Service Order Closure Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	ServiceOrderResponse	Network Operator	FRC Hub	REQ5A
2	ServiceOrderResponse	FRC Hub	User	
3	MeterDataNotification (If applicable)	Network Operator	FRC Hub	REQ5A
4	MeterDataNotification (If applicable)	FRC Hub	User	

4.2.3. Alternative Service Order Scenarios

This section provides information on alternative service-order scenarios in which Service Orders are:

- Generated by a Network Operator as a result of a previous Service Order raised by User, but where additional or different work is required in the field to that required in the User's original request,
- 'Implied' as a result of receiving a transfer request from a User. If, for example, the service requires recommissioning to effect a transfer,
- Generated by a Network Operator for internal purposes.

This section does not repeat all of the information in the previous section but highlights the key differences between the user-generated Service Order processes and these alternative service-order scenarios.

4.2.3.1. *If the Work Actually Performed Differs from that Requested*

If the work actually performed by the Network Operator differs from that defined in the Service Order Request (for example, either different, or additional, work was actually required) then the Network Operator will close the original Service Order Request (sending the appropriate Service Order Response to the user), and then raise a new Network-Operator-generated Service Order Request.

As a result of raising the Network-Operator-generated Service Order Request, the Network Operator will then also return the appropriate Service Order Response to the User with the relevant Job Completion Codes. So that the Service Order Response can be identified by the retailer as a Network-Operator-generated Service Order, the 'initiating transaction ID' field in the transaction header and the Service Order Number field will be left blank.

4.2.3.2. *Implied Service Orders*

Service Orders can be implied from other transactions. For example, When a Network Operator receives a CATS Notification with a status of "Pending" and the MIRNStatus is "Decommissioned" the Network Operator will generate a Service Order to recommission the Service. Following completion of the work, the Network Operator will provide a ServiceOrderResponse transaction to the incoming user. The Service Order Response will contain the Transfer Request ID allocated by ~~the Market Operator~~ AEMO as the Service Order Number (note: the Service Order Response will not contain the transaction ID of the Transfer Request from ~~the Market Operator~~ AEMO in the transaction header). The response will contain a responseType set to "Closure".

It should be noted that the Network Operator may have to decommission the Service again if the transfer is cancelled. The Service Order to decommission the Service would be implied from the receipt of a cancellation notice from ~~the Market Operator~~ AEMO.

In the case of an implied service order to recommission the service, the corresponding MeterDataNotification transaction will be forwarded to the current user to provide the meter data and meter index. The Reason for Read in the MeterDataNotification will be set to "OSO" (for a RML or RSD) or INI (for a MRF), and the meter status will be set to "commissioned".

In the case of an Implied service order to decommission the service, the corresponding MeterDataNotification transaction will again be forwarded to the current user to provide the meter

data and meter index. The Reason for Read in the MeterDataNotification will be set to “OSO” (for an AML or DSD), or REM (for a MRM) and the meter status will be set to “decommissioned”.

4.2.3.3. **Service Orders Generated by a Network Operator**

Service Orders may be initiated by Network Operators for internal purposes. In these cases, the Network Operator will provide the User with the "Service Order Completion" transaction for all Network Operator-initiated jobs that are site-specific and can be associated with a MIRN, excluding service renewal jobs. The 'initiating transaction ID' field in the transaction header and the Service Order Number for these types of transactions will be left blank.

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

4.2.3.4. **ServiceOrderRequest**

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the Transaction Definition Table:</p> <ul style="list-style-type: none"> • 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
<i>Trigger</i>	<ol style="list-style-type: none"> 1. User has a requirement for a Network Operator to supply a service 2. Change to Service Order requirement
<i>Pre-conditions</i>	<ol style="list-style-type: none"> 1. None 2. Service Order Request has been raised 3. Service Order Request has been raised
<i>Post-conditions</i>	<ol style="list-style-type: none"> 1. Network Operator has logged the Service Order and created Work Request 2. Network Operator has logged cancellation request
<i>Transaction acknowledgment specific event codes</i>	<p>3601, 3604, 3608, 3613, 3616-3619, 3644, 3675</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

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

Further detailed usage notes for the ServiceOrderRequest transaction are contained in the Service Order Specifications which are contained in the Specification Pack.

Note: where a ServiceOrderRequest transaction is provided to a Network Operator in South Australia, the Network Operator 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:		User
Sent To:		Network Operator
Data Element	Vic 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	Must be provided if the Service Order is related to a specific NMI (See Job Enquiry Code/data element matrix 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 Network Operator to determine work requirement and priority
ServiceOrderNumber	M	Reference number generated by the User
AccessDetails	O	Optional field that may be populated at CSR discretion
MelwayGridReference	O	Optional field that may be populated at CSR discretion. This will not be populated in SA or WA.

Transaction:		ServiceOrderRequest
Received From:		User
Sent To:		Network Operator
Data Element	Vic Mandatory / Optional / Not Required	Usage
ContactDetail/ PersonName	O	Should be populated if available. Required for an SCR in SA unless the Plumber's or Builder's Name is provided in the SORDSpecialComments /CommentLine. Implemented in the aseXML "PersonName" structured format Not to be retained in any DB system as a permanent reference. In WA, compulsory for SCR, CLT or ECO and should include either consumer (for existing home) or builder. For DFC provide details of party complaining.
ContactDetail/ PhoneNumber	O	Should be populated if available. Required for an SCR in SA unless the Plumber's or Builder's Phone Number is provided in the SORDSpecialComments/ CommentLine. Implemented in the aseXML "AustralianPhoneNumber" structured format. Not to be retained in any DB system as a permanent reference. In WA, compulsory for SCR, CLT or ECO and should include either consumer (for existing home) or builder. For DFC provide details of party complaining.
AppointmentDetail/ Preferred/ Date	M	
AppointmentDetail/ Preferred/ Time	O	Optional field for input of appointment time if applicable. The appointment date will be considered as the earliest change date. Not used in WA.
SORDSpecialComments/C ommentLine	O	Optional field that may be populated at the CSR discretion. Is required to contain the Plumber's or Builder's Name and Phone Number for an SCR in SA if the ContactDetailPersonName and ContactDetailPhoneNumber are not provided

Transaction:		ServiceOrderRequest
Received From:		User
Sent To:		Network Operator
Data Element	Vic Mandatory / Optional / Not Required	Usage
CustomerCharacterisation	O	Required in SA for Service Connection Request and Meter Fix Connections (Job Enquiry Codes = "SCR" or "MFX"). Not Required in WA
LoadDetails/PerHour	O	<p>In SA, Required for:</p> <ul style="list-style-type: none"> • 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") <p>In SA, this value must be populated with value of 1 if MeterInletPressure is populated and JobEnquiryCode is set to MRF.</p> <p>'In WA this is required for New connections (SCR, CLT & ECO) and for Upgrade of meter size or pressure (UMS). The value used must be the anticipated maximum hourly load in MJ.</p>

Transaction:		ServiceOrderRequest
Received From:		User
Sent To:		Network Operator
Data Element	Vic Mandatory / Optional / Not Required	Usage
LoadDetails/PerAnnum	O	<p>In SA, required where CustomerCharacterisation is a business customer (eg "Metropolitan Business" "Non Metropolitan Business") (and optional where CustomerCharacterisation is a residential customer):</p> <p>Service Connection Request (Job Enquiry Code = "SCR")</p> <p>Basic Meter Fix (Job Enquiry Code = "MFX")</p> <p>Optional for:</p> <ul style="list-style-type: none"> • Basic Meter Change (Job Enquiry Code = "MCH") • Service Upgrade (Job Enquiry Code = "USR") • Meter Size Upgrade (Job Enquiry Code = "UMS") <p>In WA required for Job Enquiry Codes "CLT", "ECO", "CLT", "UMS". In WA Optional for "RML", "MFX", "SCF" "MTN" and "RSD".</p> <p>Otherwise Not Required in SA or WA.</p> <p>For compliance with the schema, if a PlumberLicenceNumber is provided, then LoadDetails/PerHour must be populated. For new installations, the LoadDetails/PerHour shall reflect the actual requirement. For re-instatement of service after a period greater than 730 days, the LoadDetails/PerHour shall be populated with '0'.</p>

Transaction:		ServiceOrderRequest
Received From:		User
Sent To:		Network Operator
Data Element	Vic Mandatory / Optional / Not Required	Usage
MeterInletPressure	O	<p>In SA, Required for:</p> <ul style="list-style-type: none"> • Meter Fix (Job Enquiry Code = "MFX") • Meter Size Upgrade (Job Enquiry Code = "UMS") <p>Optional for:</p> <ul style="list-style-type: none"> • Service Upgrade (Job Enquiry Code = "USR") • Meter Refix (Job Enquiry Code = "MRF") • Service Connection Request = "SCR") <p>In SA, default to "1.1". If this element is populated to JobEnquiryCode of MRF then LoadDetails/PerHour must also be populated with value of 1.</p> <p>In WA this is required for New connections (SCR, CLT & ECO) and for Upgrade of meter size or pressure (UMS). The value used must be the required meter inlet pressure which will be defaulted to 2.75 kPa or (1.25 kPa in low pressure areas).</p>
COCNumber	O	<p>Not used in SA.</p> <p>Required for: VIC standard ("A" type) Meter Fix in Mildura).</p> <p>Required in WA only for SCR or CLT if there are type B appliances, with the GF licence number (numeric component only) of the party responsible for appliance certification. Otherwise , for compliance with aseXML schema, the element must be present in WA transactions where the PlumberLicenceNumber is populated but must always be '0'.</p>

Transaction:		ServiceOrderRequest
Received From:		User
Sent To:		Network Operator
Data Element	Vic Mandatory / Optional / Not Required	Usage
PlumberLicenceNumber	O	Not used in SA. Required for: VIC standard ("A" type) Meter Fix in Mildura). In WA, Required for a New Connection Request (SCR) and for Job Enquiry Codes "CLT" and "ECO" with the GF licence number (the last 5 digits of the numeric component) of the gas fitter. Required for RML, MTN and RSD if the MIRN has been decommissions for >730 days
StartWorkNoticeNumber	O	Not used in SA or WA.
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:

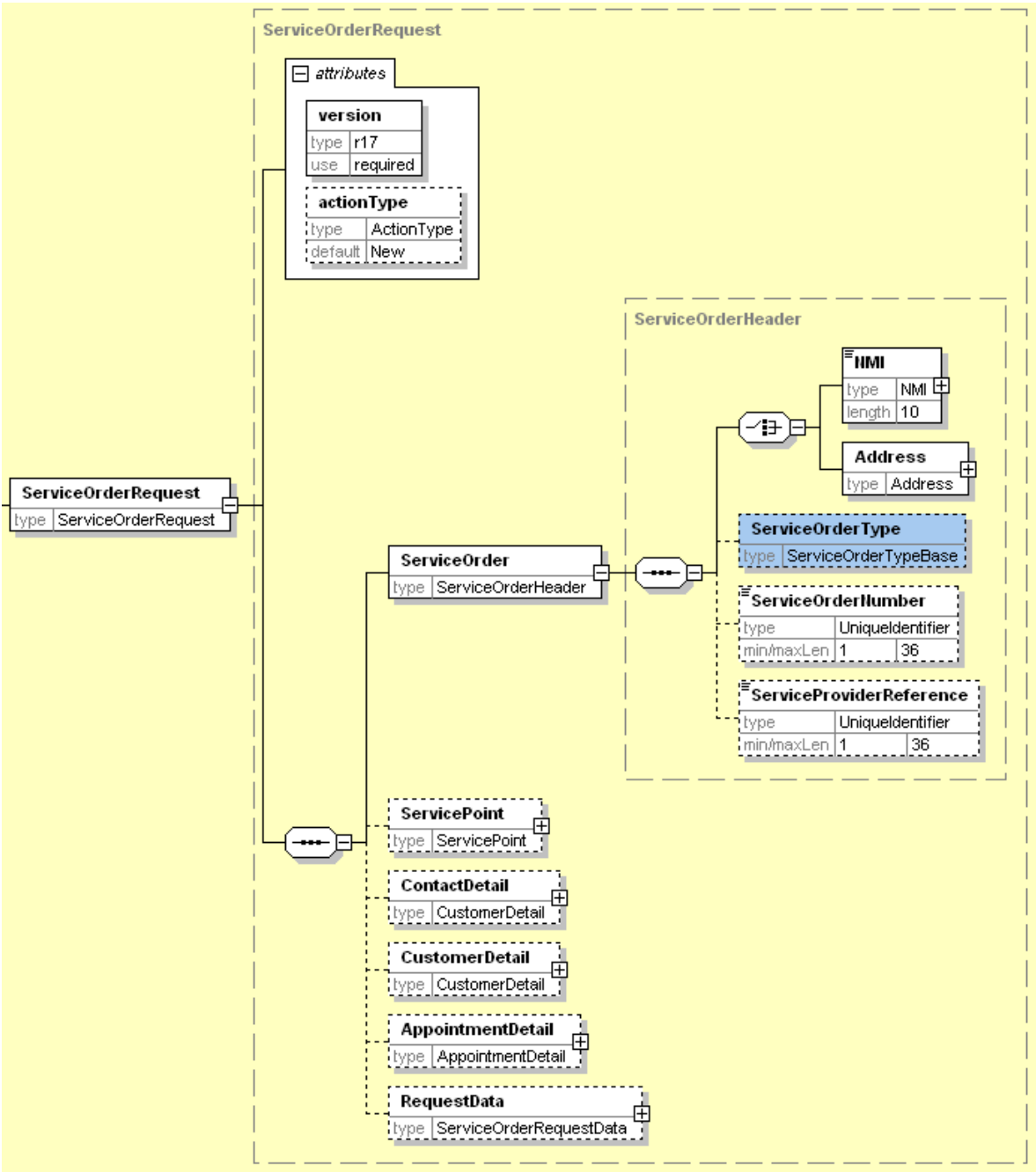


Figure 4-33 ServiceOrderRequest aseXML schema

The GasServiceOrderType type construct is in the following format:

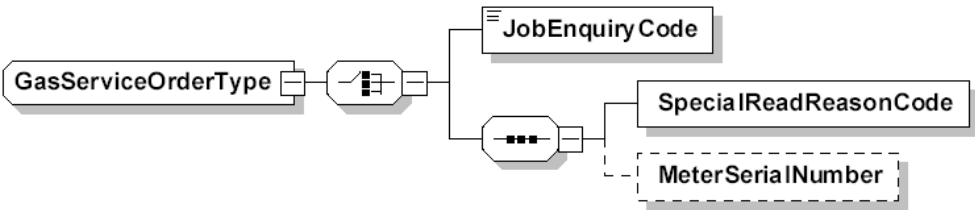


Figure 4-34 GasServiceOrderType type aseXML schema

The GasServiceOrderDetails type construct is in the following format:

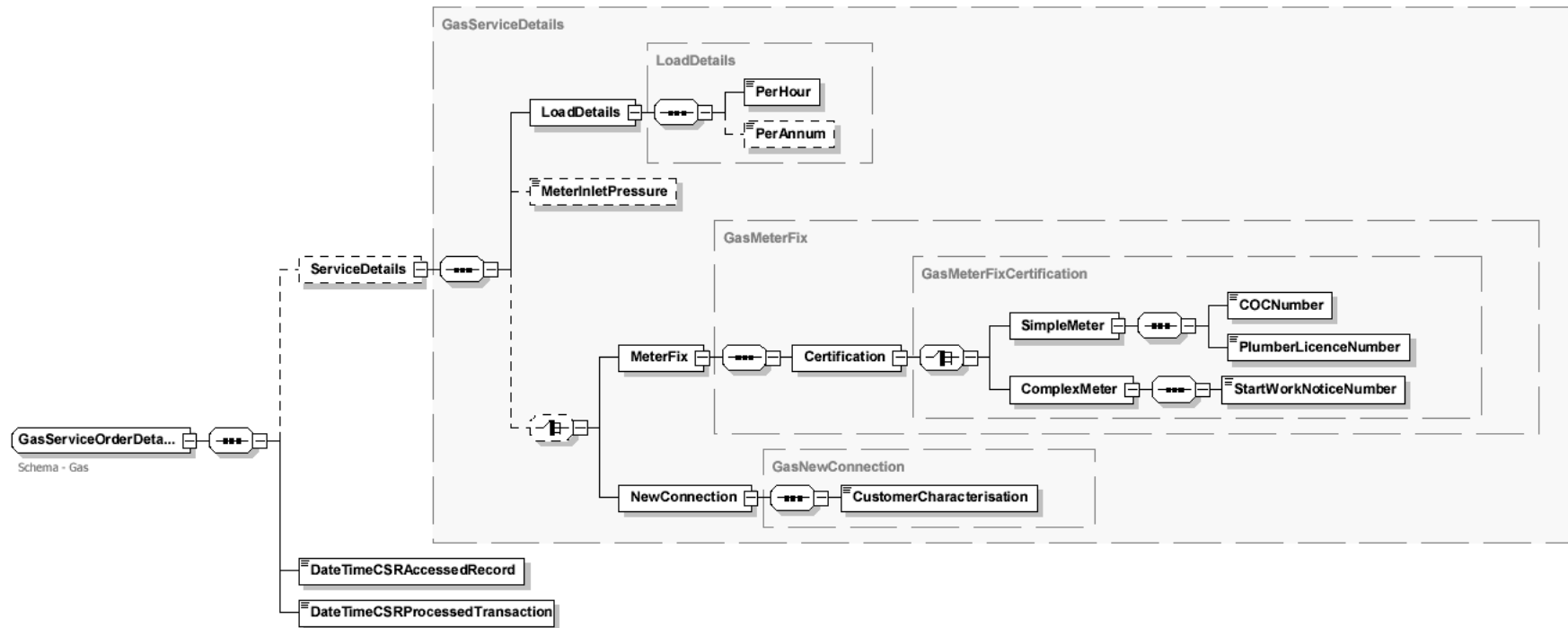


Figure 4-35 GasServiceOrderDetails type aseXML schema

XML Samples

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302180830971</MessageID>
  <MessageDate>2012-03-02T17:08:17+10:00</MessageDate>
  <TransactionGroup>SORD</TransactionGroup>
  <Priority>Medium</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302180817221" transactionDate="2012-03-02T17:08:17+10:00">
    <ServiceOrderRequest version="r17" actionType="New">
      <ServiceOrder>
        <Address>
          <AustralianAddress>
            <StructuredAddress>
              <House>
                <HouseNumber>45</HouseNumber>
                <HouseNumberSuffix>A</HouseNumberSuffix>
              </House>
              <Street>
                <StreetName>High</StreetName>
                <StreetType>ST</StreetType>
              </Street>
            </StructuredAddress>
            <SuburbOrPlaceOrLocality>GLEN IRIS</SuburbOrPlaceOrLocality>
            <StateOrTerritory>VIC</StateOrTerritory>
            <PostCode>3108</PostCode>
          </AustralianAddress>
        </Address>
        <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
          <JobEnquiryCode>MFX</JobEnquiryCode>
        </ServiceOrderType>
        <ServiceOrderNumber>A3798798</ServiceOrderNumber>
      </ServiceOrder>
      <ContactDetail>
        <PersonName>
          <NameTitle>Miss</NameTitle>
          <GivenName>Jennifer</GivenName>
          <FamilyName>Munro</FamilyName>
        </PersonName>
        <PhoneNumber serviceType="Mobile Voice">
          <Prefix>03</Prefix>
          <Number>98761234</Number>
        </PhoneNumber>
      </ContactDetail>
      <AppointmentDetail>
        <Preferred>
          <Date>2011-08-23</Date>
          <Time>18:21:37+10:00</Time>
        </Preferred>
      </AppointmentDetail>
      <RequestData xsi:type="ase:GasServiceOrderDetails" version="r27">
        <SpecialInstructions>
          <CommentLine>This job must be given highest priority</CommentLine>
          <CommentLine>Repeat: highest priority</CommentLine>
        </SpecialInstructions>
        <ServiceDetails>
          <LoadDetails>
            <PerHour>310</PerHour>
          </LoadDetails>
          <MeterInletPressure>1.37</MeterInletPressure>
        </ServiceDetails>
        <DateTimeCSRAccessedRecord>2011-08-01T16:21:22+10:00</DateTimeCSRAccessedRecord>
        <DateTimeCSRProcessedTransaction>2011-08-01T16:21:22+10:00</DateTimeCSRProcessedTransaction>
      </RequestData>
    </ServiceOrderRequest>
  </Transaction>
</Transactions>
```

```
</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>WA</StateOrTerritory>
    <PostCode>6333</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>WA</StateOrTerritory>
    <PostCode>8333</PostCode>
  </AustralianAddress>
</Address>
```

</AustralianAddress>
</Address>

4.2.3.5. **ServiceOrderResponse**

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the Transaction Definition Table:</p> <ul style="list-style-type: none"> • 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
<i>Trigger</i>	<ol style="list-style-type: none"> 1. Work Request Number generated 2. Service Order Completed, Cancelled, or Attempted with No Access
<i>Pre-conditions</i>	<ol style="list-style-type: none"> 1. Network Operator has logged Service Order Request and generated Work Request Number 2. Network Operator has closed Work Request
<i>Post-conditions</i>	<ol style="list-style-type: none"> 3. User has logged Work Request Number 4. User has closed Service Order

<i>Transaction acknowledgment specific event codes</i>	3602(not applicable for DB initiated Service Orders), 3609, 3610, 3622, 3624-3637 (Also the generic event codes 3603, 3659, 3662, 3673 can be used)
--	--

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 User the transaction is used to provide closure to the process.

Further detailed usage notes for the ServiceOrderResponse transaction are contained in the Service Order Specifications which are contained in the Specification Pack.

Transaction Data Elements

Transaction:		ServiceOrderResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA/WA Mandatory/ Optional / Not Required	Victoria Mandatory/ Optional/ Not Required	Usage
responseType	M	M	<ul style="list-style-type: none"> • "Initial" for initial response • "Closure" when Service Order is closed Implemented as an attribute of the ServiceOrderResponse aseXML element.
NMI	O	O	Required when supplied by the User 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 initiated by the Network Operator. Optional for Service Connection (Job Enquiry Code = "SCR") Otherwise not required.
checksum	O	O	Required if MIRN is populated. Implemented as an attribute of the MIRN aseXML element
Address	O	O	Required if MIRN not populated. Implemented in the aseXML "Address" structured format

Transaction:		ServiceOrderResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA/WA Mandatory/ Optional / Not Required	Victoria Mandatory/ Optional/ Not Required	Usage
JobEnquiryCode	M	M	Used by Network Operator to determine work requirement and priority
ServiceOrderNumber	O	O	A reference number generated by a User. This number is always Required when a User initiated the Service Order and provided the Service Order Number. For an implied service order, the Service Order Number will always equal the transfer request ID allocated by the Market Operator AEMO .
ServiceProviderReference	M	M	Network Operator's Work Request Number
AppointmentDetail/ Preferred/ Date	O	O	Required for Initial response for Service Connection Request (Job Enquiry Code = SCR) and No Access response to all Service Order Requests. Not used in WA.
AppointmentDetail/ Preferred/ Time	O	O	Required for No Access response if supplied in request transaction
DateServiceOrderCompleted	O	O	Required if Service Order completed
TimeServiceOrderCompleted	O	O	Optional if Service Order completed
Removed/ MeterSerialNumber	O	O	Required whenever a meter is removed as part of the Service Order completion
Removed/ MeterRead/ Current/ IndexValue	O	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	O	Required whenever a new meter is fitted as part of the Service Order completion
New/ PressureCorrectionFactor	O	O	Required whenever a new meter is fitted as part of the Service Order completion

Transaction:		ServiceOrderResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA/WA Mandatory/ Optional / Not Required	Victoria Mandatory/ Optional/ Not Required	Usage
New/ MeterTypeSizeCode	O	O	Required whenever a new meter is fitted as part of the Service Order completion
New/ MeterRead/ Current/ IndexValue	O	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	O	Required for Meter Fix (Job Enquiry Code = "MFX")
New/ BasicMeter/ ScheduledReadingDayNumber	O	O	Required for Meter Fix (Job Enquiry Code = "MFX")
Current/ MeterRead/ Current/ IndexValue	O	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	O	Required for No Access response
JobCompletionCode1	O	O	Required if Service Order completed or attempted with No Access
JobCompletionCode2	O	O	Required if Service Order completed or attempted with No Access
JobCompletionCode3	O	O	Required whenever a meter is removed as part of the Service Order completion Optional for other Service Order completions. Not used in WA.

Transaction:		ServiceOrderResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA/WA Mandatory/ Optional / Not Required	Victoria Mandatory/ Optional/ Not Required	Usage
NotificationData/SpecialNotes/CommentLine	<u>O</u>	<u>O</u>	<p>Required if Service Order is attempted but not successfully completed, including when cancelled by the DB</p> <p>For the avoidance of doubt, not required for retailer initiated B2B cancellation transaction unless...</p> <p>Retailer Cancel SO was rejected by the DB but later cancelled in the field</p> <p>SO cancellation was verbally communicated by the Retailer.</p> <p>Up to 3 comment lines can be provided (80 characters each)</p> <p>Note: Participants will refer to this field as SORDNotCompleteComment/CommentLine</p>
HeatingValue Zone	O	Not included	Required in WA, Not included in SA
TransmissionZone	O	Not included	Required in WA, Not included in SA
Distribution Tariff	O	Not included	Required in WA, Not included in SA
AccessDetails	O	Not included	Not included in SA. Included in WA for SO responses for SCR,CLT and ECO. Optional for other job enquiry codes.
MeterPosition	O	Not included	Not included in SA. Included in WA for SO responses for SCR,CLT,ECO and MCH. Optional for other job enquiry codes.
DogCode	O	Not included	Not included in SA. Included in WA for SO responses for SCR,CLT,ECO and MCH. Optional for other job enquiry codes.

Transaction:		ServiceOrderResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA/WA Mandatory/ Optional / Not Required	Victoria Mandatory/ Optional/ Not Required	Usage
Event	O	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 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.

Dog Code should be included within the 'site data' element.

The ServiceOrderResponse transaction is in the following format:

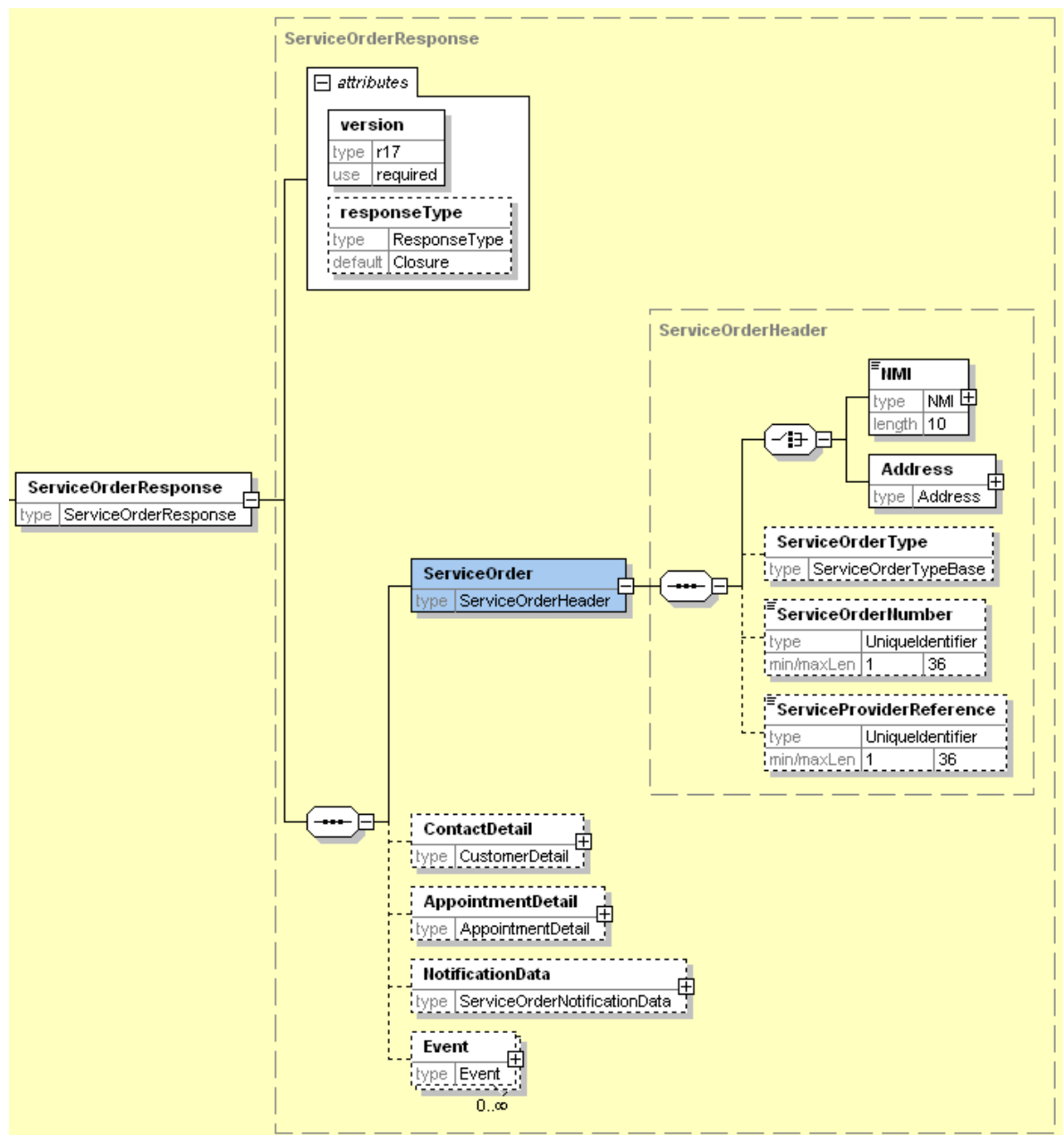


Figure 4-36 ServiceOrderResponse aseXML schema

See section 4.2.3.4 for the format of the GasServiceOrderType type construct.

The GasServiceOrderNotificationData type construct is in the following format:

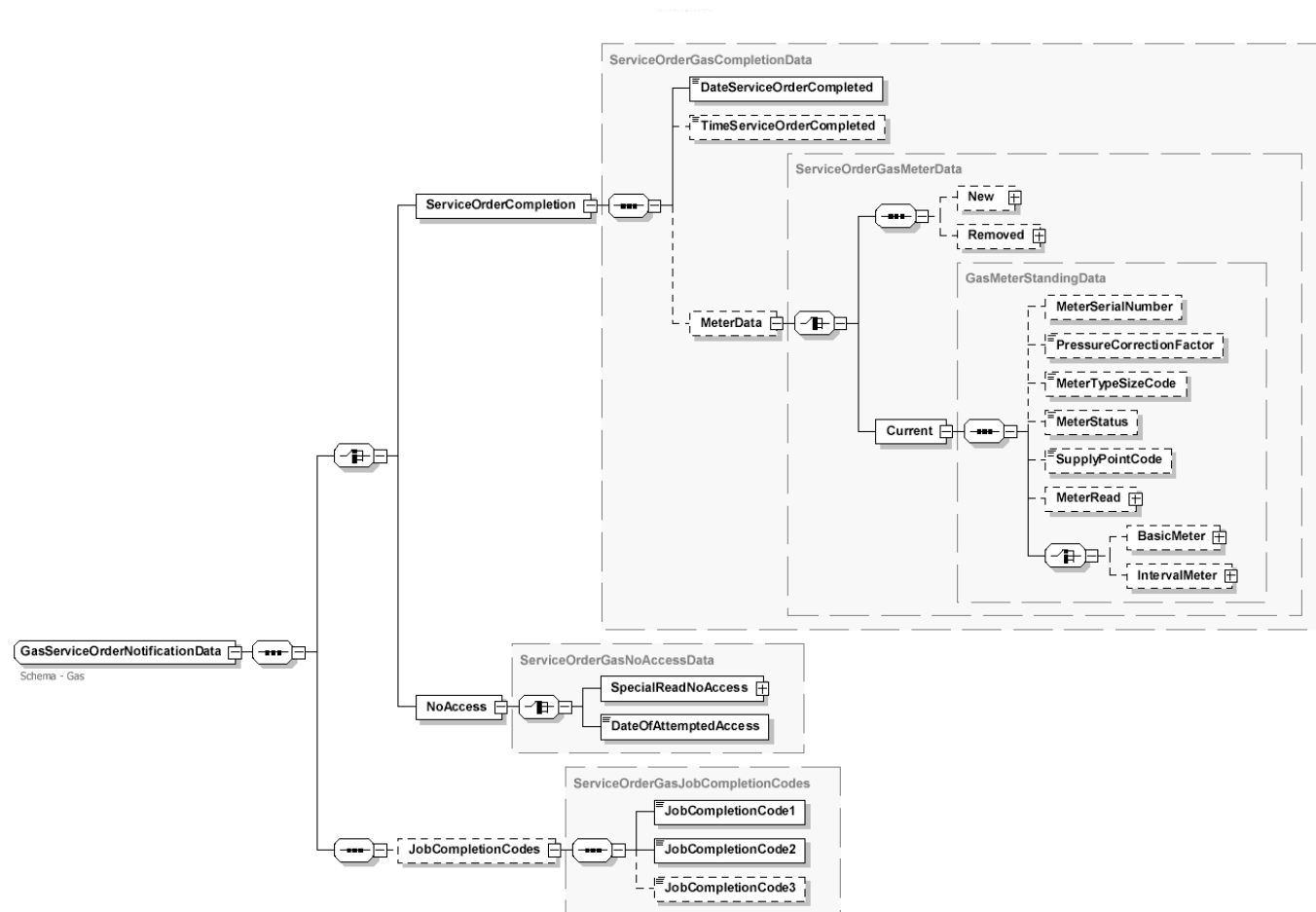


Figure 4-37 GasServiceOrderNotificationData type aseXML schema

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

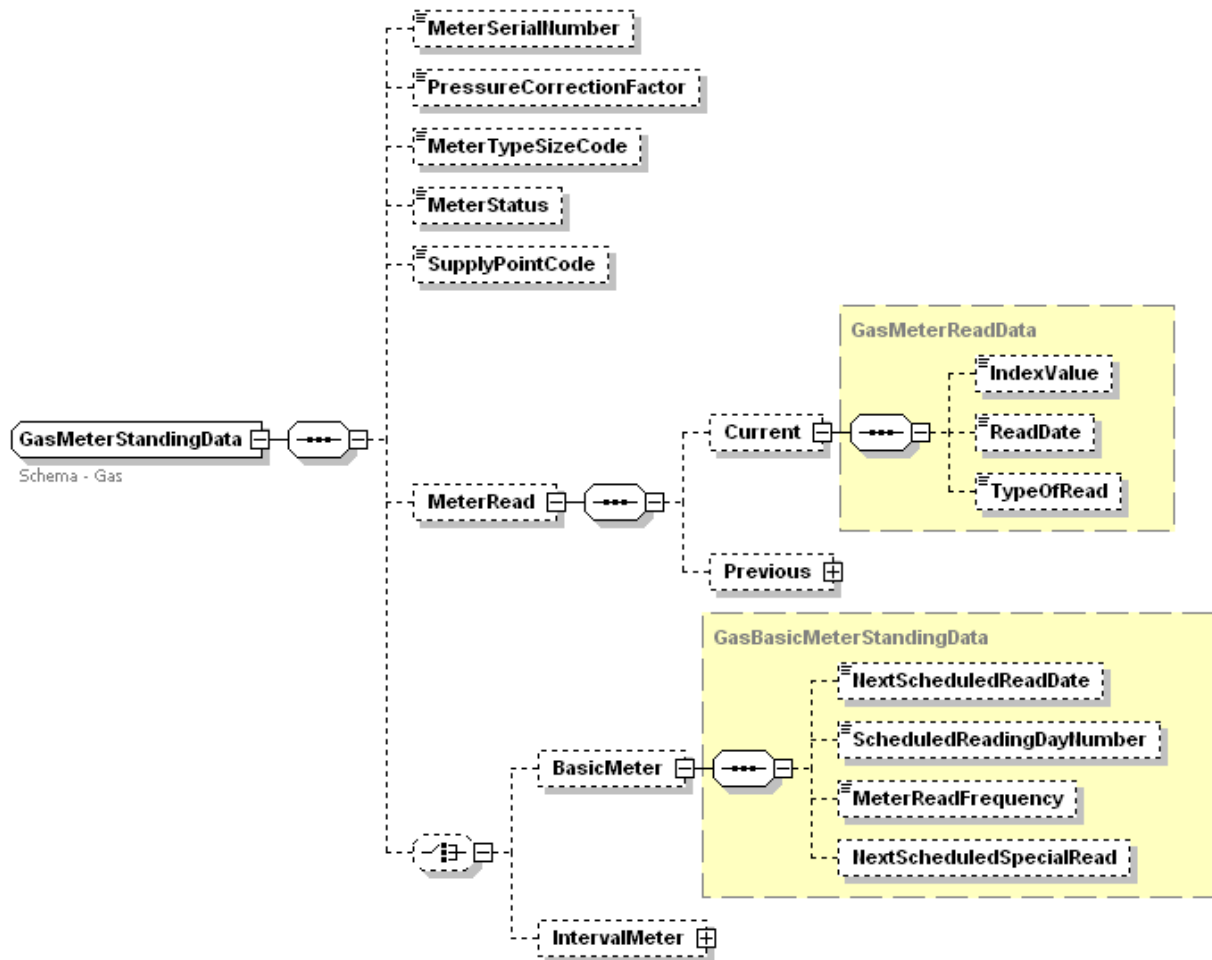


Figure 4-38 GasMeterStandingData aseXML schema

XML Sample

Initial Notification

```
<Header>
  <From description="Network Operator">XXXXXXXXXX</From>
  <To description="Retailer">XXXXXXXXXX</To>
  <MessageID>NETO-MSG-73645</MessageID>
  <MessageDate>2004-08-01T12:00:00+10:00</MessageDate>
  <TransactionGroup>SORD</TransactionGroup>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="NETO-TXN-46735" transactionDate="2004-08-01T12:00:00+10:00"
initiatingTransactionID="RETO-TXN-463547">
    <ServiceOrderResponse version="r13" responseType="Initial">
      <ServiceOrder>
        <NMI checksum="3">2837465436</NMI>
        <ServiceOrderType xsi:type="ase:ServiceOrderTypeGas">
          <JobEnquiryCode>MFX</JobEnquiryCode>
        </ServiceOrderType>
        <ServiceOrderNumber>TXR-756453</ServiceOrderNumber>
        <ServiceProviderReference>WR-7564537</ServiceProviderReference>
      </ServiceOrder>
    </ServiceOrderResponse>
  </Transaction>
</Transactions>
```

Completion Notification (SA Example)

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302181045584</MessageID>
  <MessageDate>2012-03-02T17:10:25+10:00</MessageDate>
  <TransactionGroup>SORD</TransactionGroup>
  <Priority>Low</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302181025678" transactionDate="2012-03-
02T17:10:25+10:00" initiatingTransactionID="FBS-20120201181025678">
    <ServiceOrderResponse version="r17" responseType="Closure">
      <ServiceOrder>
        <NMI checksum="1">5510419959</NMI>
        <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
          <JobEnquiryCode>SCR</JobEnquiryCode>
        </ServiceOrderType>
        <ServiceOrderNumber>ABC9798977</ServiceOrderNumber>
        <ServiceProviderReference>XY75667</ServiceProviderReference>
      </ServiceOrder>
      <AppointmentDetail>
        <Preferred>
          <Date>2012-03-02</Date>
          <Time>17:10:25+10:00</Time>
        </Preferred>
      </AppointmentDetail>
      <NotificationData xsi:type="ase:GasServiceOrderNotificationData" version="r13">
        <ServiceOrderCompletion>
          <DateServiceOrderCompleted>2012-03-
02</DateServiceOrderCompleted>
          <TimeServiceOrderCompleted>17:40:25+10:00</TimeServiceOrderCompleted>
          <MeterData>
            <New>
              <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
              <MeterTypeSizeCode>BM7</MeterTypeSizeCode>
            </New>
          </MeterData>
        </ServiceOrderCompletion>
      </NotificationData>
    </ServiceOrderResponse>
  </Transaction>
</Transactions>
```

```

        <MeterStatus>Turned on</MeterStatus>
        <SupplyPointCode>Basic</SupplyPointCode>
        <MeterRead>
            <Current>
                <IndexValue>3</IndexValue>
                <ReadDate>2012-03-
02</ReadDate>

            </Current>

        </MeterRead>
        <BasicMeter>
            <NextScheduledReadDate>2012-03-
02</NextScheduledReadDate>
            <ScheduledReadingDayNumber>34</ScheduledReadingDayNumber>
            <MeterReadFrequency>Bi
Monthly</MeterReadFrequency>

        </BasicMeter>
    </New>
</MeterData>
</ServiceOrderCompletion>
<JobCompletionCodes>
    <JobCompletionCode1>15</JobCompletionCode1>
    <JobCompletionCode2>78</JobCompletionCode2>
    <JobCompletionCode3>31</JobCompletionCode3>
</JobCompletionCodes>
</NotificationData>
<Event class="Message" severity="Information">
    <Code>0</Code>
</Event>
</ServiceOrderResponse>
</Transaction>
</Transactions>

```

Completion Notification – WA Example

```

<Header>
    <From description="Network Operator">XXXXXXXXXX</From>
    <To description="Retailer">XXXXXXXXXX</To>
    <MessageID>NETO-MSG-73645</MessageID>
    <MessageDate>2004-08-01T12:00:00+10:00</MessageDate>
    <TransactionGroup>SORD</TransactionGroup>
    <Market>WAGAS</Market>
</Header>
<Transactions>
    <Transaction transactionID="NETO-TXN-46735" transactionDate="2004-08-01T12:00:00+10:00"
initiatingTransactionID="RETO-TXN-463547">
        <ServiceOrderResponse version="r13" responseType="Closure">
            <ServiceOrder>
                <NMI checksum="3">2837465436</NMI>
                <ServiceOrderType xsi:type="ase:GasServiceOrderType" version="r13">
                    <JobEnquiryCode>MFX</JobEnquiryCode>
                </ServiceOrderType>
                <ServiceOrderNumber>TXR-756453</ServiceOrderNumber>
                <ServiceProviderReference>WR-7564537</ServiceProviderReference>
            </ServiceOrder>
            <NotificationData xsi:type="ase:GasServiceOrderNotificationData" version="r13">
                <NMIStandingData xsi:type="ase:GasStandingData" version="r13">
                    <MasterData>
                        <DistributionTariff>1A1R</DistributionTariff>
                        <TransmissionZone>03</TransmissionZone>
                        <HeatingValueZone>01</HeatingValueZone>
                    </MasterData>
                </NMIStandingData>
            </NotificationData>
        </ServiceOrderResponse>
    </Transaction>
</Transactions>

```

```

<ServiceOrderCompletion>
  <DateServiceOrderCompleted>2004-08-01</DateServiceOrderCompleted>
  <MeterData>
    <New>
      <MeterSerialNumber>M1234</MeterSerialNumber>
      <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
      <MeterTypeSizeCode>BM1</MeterTypeSizeCode>
      <MeterRead>
        <Current>
          <IndexValue>0</IndexValue>
        </Current>
      </MeterRead>
      <BasicMeter>
        <NextScheduledReadDate>2004-03-01</NextScheduledReadDate>
        <ScheduledReadingDayNumber>4</ScheduledReadingDayNumber>
      </BasicMeter>
    </New>
  </MeterData>
</ServiceOrderCompletion>
<JobCompletionCodes>
  <JobCompletionCode1>10</JobCompletionCode1>
  <JobCompletionCode2>12</JobCompletionCode2>
</JobCompletionCodes>
</NotificationData>
</ServiceOrderResponse>
</Transaction>
</Transactions>

```

4.3. MIRN Discovery

4.3.1. Overview

The /Meter Installation Registration Number (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 Users and Network Operators.

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
	281*	Multiple MIRNs
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 Network Operator to a User following a User's request. The type of request issued by a User is 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)

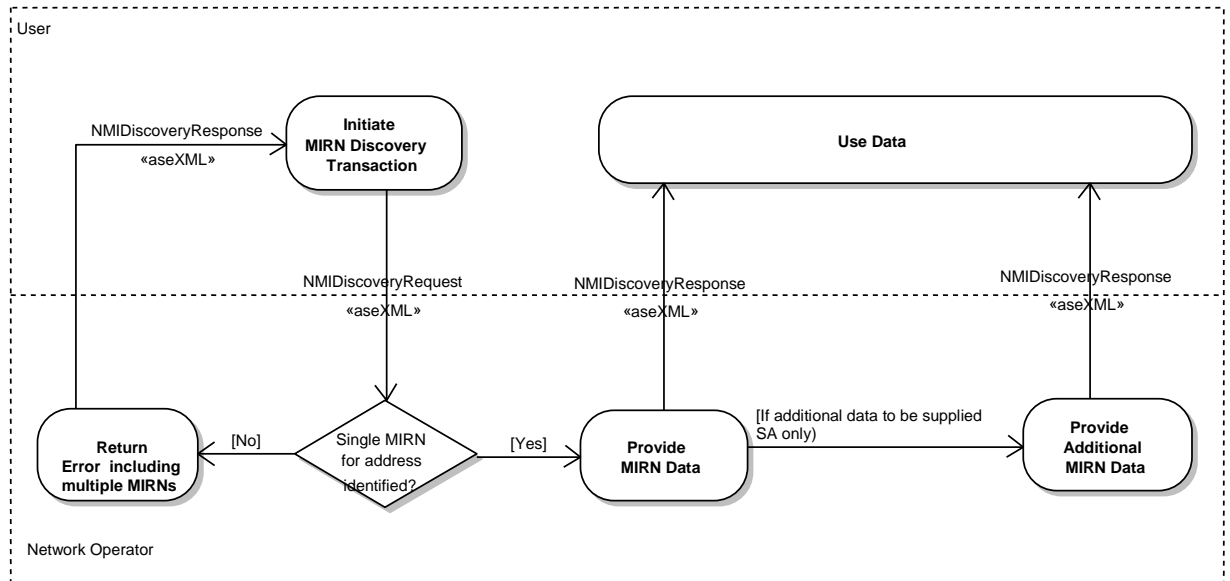


Figure 4-39 MIRN Discovery Activity Diagram

Process Sequence

A User issues a NMIDiscoveryRequest transaction when that User 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:

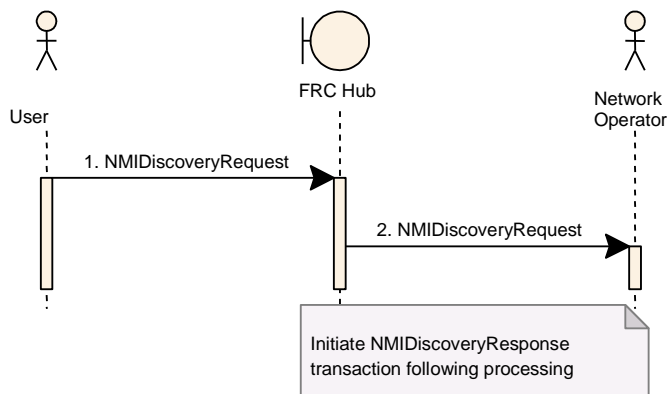


Figure 4-40 MIRN Discovery Request Sequence Diagram

ID	AseXML Transaction	From Object	To Object	Process Flow
1	NMIDiscoveryRequest	User	FRC Hub	MIRN 4B
2	NMIDiscoveryRequest	FRC Hub	Network Operator	

Matching addresses to MIRN

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

If there is more than one commissioned or decommissioned MIRN for the discovery address in the MIRN database, the Network Operator must immediately provide a MIRN Discovery Response to the user containing each MIRN (but only up to a maximum 99 MIRNs) that has matched the discovery address.

If no address is found to match, an error is sent in the MIRN Discovery Response.

Additional Standing Data

In SA, if not all MIRN Standing Data is available regarding additional charges applicable to the MIRN within the required turnaround time for the transaction, two MIRN Discovery Responses will be issued, the initial response containing an indicator to the User that more data is to follow. The second response follows when the additional data becomes available. After a Network Operator has processed the request a NMIDiscoveryResponse transaction is returned to the User to provide the required data. A second NMIDiscoveryResponse transaction will be provided if additional MIRN data must be supplied. This does not apply in WA

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

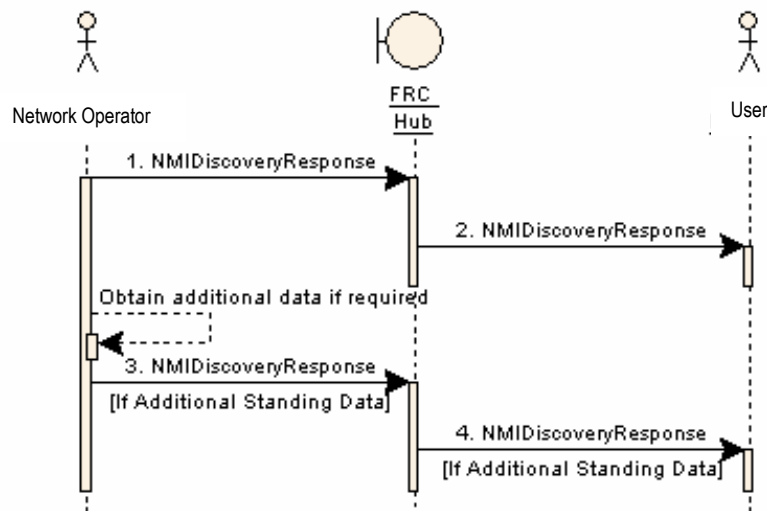


Figure 4-41 MIRN Discovery Response Sequence Diagram

ID	AseXML Transaction	From Object	To Object	Process Flow
1	NMIDiscoveryResponse	Network Operator	FRC Hub	MIRN 4B
2	NMIDiscoveryResponse	FRC Hub	User	
3	NMIDiscoveryResponse	Network Operator	FRC Hub	MIRN 4B
4	NMIDiscoveryResponse	FRC Hub	User	

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**

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the Transaction Definition Table:</p> <ul style="list-style-type: none"> • 280 – Discovery Request <p>Note:</p> <p>This transaction is only used when an address is used as the input. The NMISharingDataRequest transaction also realises this transaction when the input is a MIRN.</p>
---	---

<i>Trigger</i>	This interface is triggered when a User requests MIRN Standing Data for a MIRN that they know only by address.
<i>Pre-conditions</i>	User has an Explicit Informed Consent from the subject customer in respect of the distribution supply point at the address.
<i>Post-conditions</i>	Network Operator has logged the Discovery Request
<i>Transaction acknowledgment specific event codes</i>	3606, 3608, 3638, 3639, 3660 (Also the generic event codes 3603, 3659, 3662, 3673 can be used)

The NMIDiscoveryRequest transaction is used by the User to request a MIRN and MIRN Standing Data from the Network Operator.

Transaction Data Elements

Transaction:		NMIDiscoveryRequest
Received From:		User
Sent To:		Network Operator
Data Element	VIC & SA/WA: Mandatory / Optional / Not Required	Usage
JurisdictionCode	M	SA: Literal "SGI" WA Literal "WGI" VIC: 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:

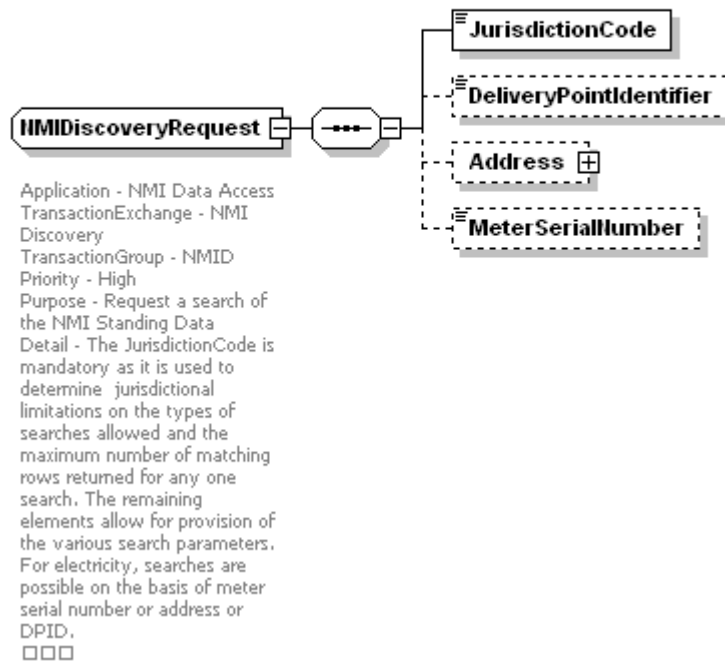


Figure 4-42 NMIDiscoveryRequest aseXML schema

XML Sample

```
<Header>
<From description="">FBSTEST</From>
<To description="">DEV</To>
<MessageID>20120302175139399</MessageID>
<MessageDate>2012-03-02T16:50:49+10:00</MessageDate>
<TransactionGroup>NMID</TransactionGroup>
<Priority>Medium</Priority>
<Market>SAGAS</Market>
</Header>
<Transactions>
<Transaction transactionID="FBSTEST-20120302175049898" transactionDate="2012-03-02T16:50:49+10:00">
  <NMIDiscoveryRequest version="r17">
    <JurisdictionCode>SGI</JurisdictionCode>
    <Address>
      <StructuredAddress>
        <House>
          <HouseNumber>52</HouseNumber>
        </House>
        <Street>
          <StreetName>High</StreetName>
          <StreetType>ST</StreetType>
        </Street>
      </StructuredAddress>
      <SuburbOrPlaceOrLocality>Brompton</SuburbOrPlaceOrLocality>
      <StateOrTerritory>SA</StateOrTerritory>
      <PostCode>5007</PostCode>
    </Address>
  </NMIDiscoveryRequest>
</Transaction>
</Transactions>
```

</Transaction>
</Transactions>

4.3.2.3. NMIDiscoveryResponse (WA – sceham R13)

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the GPTWG Transaction Definition Table:</p> <ul style="list-style-type: none"> • 281 – MIRN Standing Data • 284 – MIRN Additional Data <p>Note. The NMISstandingDataResponse transaction also realises these transactions when the request is a NMISstandingDataRequest transaction.</p> <p>Note: Transaction 281 will be used where the Network Operator identifies multiple MIRNs for an address.</p>
<i>Trigger</i>	Completion of processing of the NMIDiscoveryRequest transaction.
<i>Pre-conditions</i>	None
<i>Post-conditions</i>	User has the MIRN Standing Data, or a record of failure of processing of the NMIDiscoveryRequest data and all errors detected.
<i>Transaction acknowledgment specific event codes</i>	<p>3602, 3680</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

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 User in a subsequent NMIDiscoveryResponse.

Transaction Data Elements

Transaction:		NMIDiscoveryResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
NMI	M	M	
Checksum	M	M	Implemented as an attribute of the NMI aseXML element
DistributionTariff	O	O	Always Required if meter is attached for single MIRN responses. Not to be provided for multiple responses.

Transaction:		NMIDiscoveryResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
TransmissionZone	O	M	Always required for single MIRN responses. Not to be provided for multiple responses.
HeatingValueZone	O	M	Always required for single MIRN responses. Not to be provided for multiple responses.
CustomerCharacterisation	O	O	Always Required if Basic Meter is attached in SA for single MIRN responses. Not to be provided for multiple responses. Never Required in WA
MIRNStatus	O	M	Always required for single MIRN responses. Not to be provided for multiple responses.
MeterSerialNumber	O	O	Required if meter is attached.
PressureCorrectionFactor	O	O	Always Required if basic meter is attached for single MIRN responses. Not to be provided for multiple responses.
MeterStatus	O	M	If MeterStatus is set to "No Meter", then no meter is attached to the MIRN. Always required for single MIRN responses. Not to be provided for multiple responses. Not used in WA.
SupplyPointCode	O	O	Always Required if meter is attached for single MIRN responses. Not to be provided for multiple responses.
Current/ ReadDate	O	O	Always Required if Basic Meter is attached for single MIRN responses. Not to be provided for multiple responses.

Transaction:		NMIDiscoveryResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
NextScheduledReadDate	O	O	Always Required if Basic Meter is attached for single MIRN responses. Not to be provided for multiple responses.
MeterReadFrequency	O	O	Always Required if Basic Meter is attached for single MIRN responses. Not to be provided for multiple responses.
NextScheduledSpecialRead/ Preferred/ Date	O	O	Optional if Basic Meter is attached. Populated if there is a Special Read appointment booked against this MIRN. Not to be provided for multiple responses.
CommunicationEquipmentPresent	O	O	Required if Interval Meter is attached. Not to be provided for multiple responses.
ExcludedServicesCharges/ ChargeItem/ Category	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not to be provided for multiple responses. Not used in WA
ExcludedServicesCharges/ ChargeItem/ Amount	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not to be provided for multiple responses. Not used in WA

Transaction:		NMIDiscoveryResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
ExcludedServicesCharges/ ChargeItem/ ExpiryDate	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not to be provided for multiple responses. Not used in WA
Address	M	M	In aseXML structured format
AdditionalDataToFollow	M	M	Only applies to SA. For multiple responses the value will always be 'false'. In WA value will always be "false"
Event	M	M	Set to '0' if no errors or events to report. May be repeated any number of times.
ScheduledReadingDay Number	O	Not Included	Required in WA if a basic meter is attached, not included in SA. Not to be provided for multiple responses.
MeterTypeSizeCode	O	Not Included	Required in WA. Not to be provided for multiple responses.

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

The NMIDiscoveryResponse transaction is in the following format:

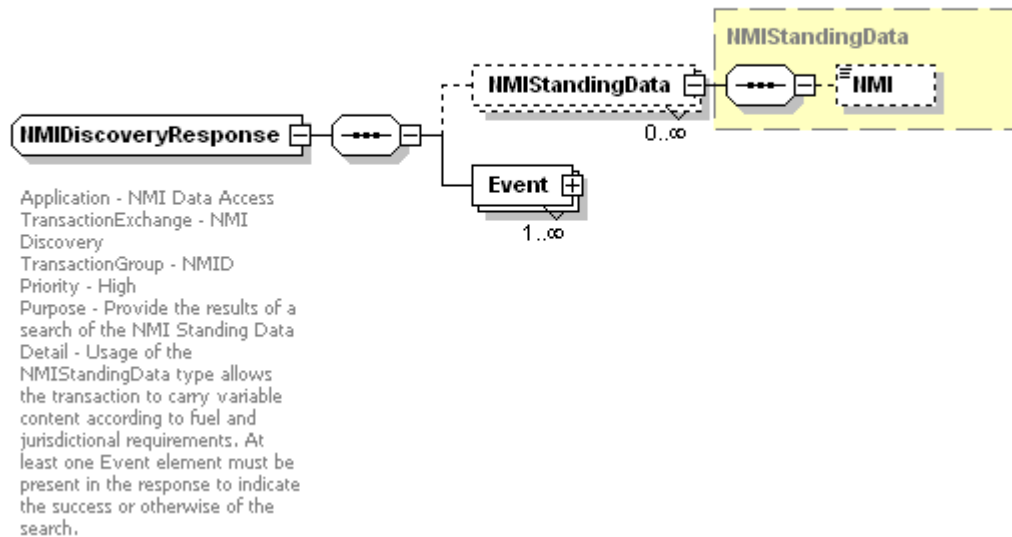


Figure 4-43 NMIDiscoveryResponse aseXML schema

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

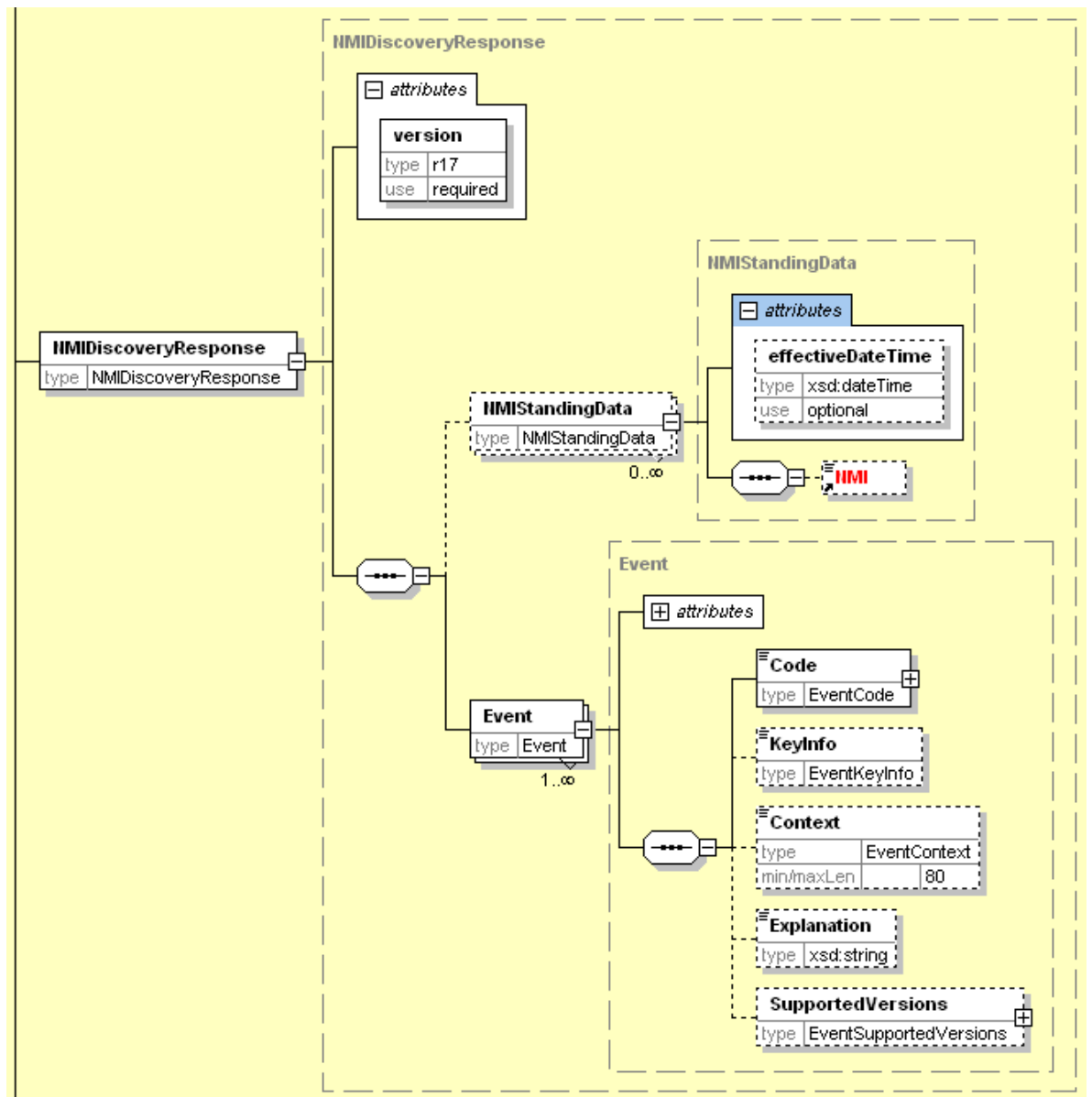


Figure 4-44 GasStandingData type (high level) aseXML schema

The MasterData element schema is defined below:



Figure 4-45 GasMasterStandingData aseXML schema

The GasMeterStandingData element schema is defined below:

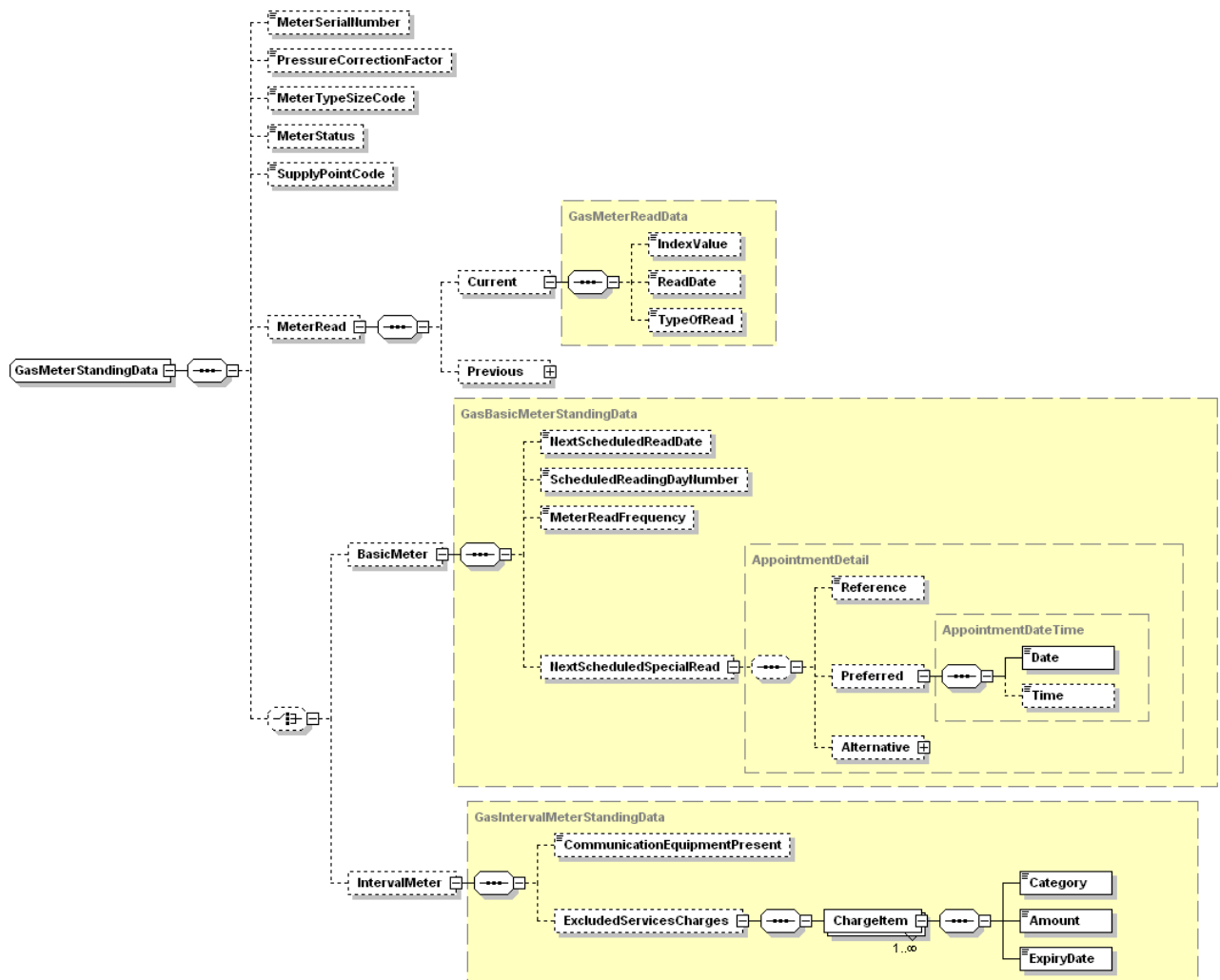


Figure 4-46 GasMeterStandingData aseXML schema

The SiteData element schema is defined below:

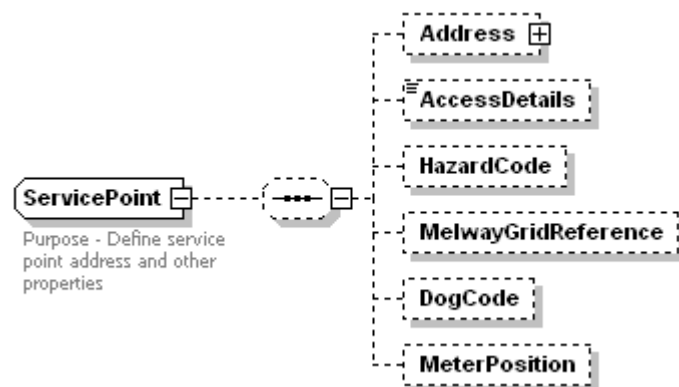


Figure 4-47 ServicePoint aseXML schema

XML Sample

Basic Meter Response

```
<Header>
  <From description="Network Operator">XXXXXXXXXX</From>
  <To description="Retailer">XXXXXXXXXX</To>
  <MessageID>NETO-MSG-4321</MessageID>
  <MessageDate>2004-08-14T12:00:00+10:00</MessageDate>
  <TransactionGroup>NMID</TransactionGroup>
  <Market>WAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="NETO-TXN-4321" transactionDate="2004-08-14T12:00:00+10:00"
initiatingTransactionID="RETO-TXN-1234">
    <NMIDiscoveryResponse version="r4">
      <NMIStandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="3">1234567890</NMI>
        <MasterData>
          <DistributionTariff>1A1R</DistributionTariff>
          <TransmissionZone>99</TransmissionZone>
          <HeatingValueZone>03</HeatingValueZone>
          <CustomerCharacterisation></CustomerCharacterisation>
          <MIRNStatus>Commissioned</MIRNStatus>
        </MasterData>
        <MeterData>
          <MeterSerialNumber>M1234</MeterSerialNumber>
          <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
          <MeterTypeSizeCode>BM1</MeterTypeSizeCode>
          <MeterStatus>Turned on</MeterStatus>
          <SupplyPointCode>Basic</SupplyPointCode>
          <MeterRead>
            <Current>
              <ReadDate>2004-08-01</ReadDate>
            </Current>
          </MeterRead>
          <BasicMeter>
            <NextScheduledReadDate>2004-08-01</NextScheduledReadDate>
            <ScheduledReadingDayNumber>4</ScheduledReadingDayNumber>
            <MeterReadFrequency>Bi Monthly</MeterReadFrequency>
            <NextScheduledSpecialRead>
              <Preferred>
                <Date>2004-08-01</Date>
              </Preferred>
            </NextScheduledSpecialRead>
          </BasicMeter>
        </MeterData>
        <SiteData>
          <Address>
            <AustralianAddress>
              <StructuredAddress>
                <House>
                  <HouseNumber>25</HouseNumber>
                </House>
                <Street>
                  <StreetName>Moray</StreetName>
                  <StreetType>ST</StreetType>
                </Street>
              </StructuredAddress>
              <SuburbOrPlaceOrLocality>Kew</SuburbOrPlaceOrLocality>
              <StateOrTerritory>WA</StateOrTerritory>
              <PostCode>6101</PostCode>
            </AustralianAddress>
          </Address>
        </SiteData>
        <AdditionalDataToFollow>false</AdditionalDataToFollow>
      </NMIDiscoveryResponse>
    </Transaction>
  </Transactions>
  <Event>
    <Code>0</Code>
  </Event>
</Transactions>
```

```

    </Event>
  </NMIDiscoveryResponse>
</Transaction>
</Transactions>

```

Interval Meter Initial Response

```

<Header>
  <From description="Network Operator">XXXXXXXXXX</From>
  <To description="Retailer">XXXXXXXXXX</To>
  <MessageID>NETO-MSG-4321</MessageID>
  <MessageDate>2004-08-14T12:00:00+10:00</MessageDate>
  <TransactionGroup>NMID</TransactionGroup>
  <Market>WAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="NETO-TXN-4321" transactionDate="2004-08-14T12:00:00+10:00"
initiatingTransactionID="RETO-TXN-1234">
    <NMIDiscoveryResponse version="r4">
      <NMIStandingData xsi:type="ase:GasStandingData" version="r13">
        <NMI checksum="3">1234567890</NMI>
        <MasterData>
          <DistributionTariff>1A1R</DistributionTariff>
          <TransmissionZone>09</TransmissionZone>
          <HeatingValueZone>03</HeatingValueZone>
          <MIRNStatus>Commissioned</MIRNStatus>
        </MasterData>
        <MeterData>
          <MeterSerialNumber>M1234</MeterSerialNumber>
          <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
          <MeterTypeSizeCode>IM1</MeterTypeSizeCode>
          <MeterStatus>Turned on</MeterStatus>
          <SupplyPointCode>Interval</SupplyPointCode>
          <IntervalMeter>
            <CommunicationEquipmentPresent>true</CommunicationEquipmentPresent>
            <MeterTypeSizeCode>IM1</MeterTypeSizeCode>
          </IntervalMeter>
        </MeterData>
        <SiteData>
          <Address>
            <AustralianAddress>
              <StructuredAddress>
                <House>
                  <HouseNumber>25</HouseNumber>
                </House>
                <Street>
                  <StreetName>Moray</StreetName>
                  <StreetType>ST</StreetType>
                </Street>
              </StructuredAddress>
              <SuburbOrPlaceOrLocality>Kew</SuburbOrPlaceOrLocality>
              <StateOrTerritory>WA</StateOrTerritory>
              <PostCode>6101</PostCode>
            </AustralianAddress>
          </Address>
        </SiteData>
        <AdditionalDataToFollow>>false</AdditionalDataToFollow>
      </NMIStandingData>
    <Event>
      <Code>0</Code>
    </Event>
  </NMIDiscoveryResponse>
</Transaction>
</Transactions>

```

4.3.2.3A NMIDiscoveryResponse (SA – schema R29)

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the Transaction Definition Table:</p> <ul style="list-style-type: none"> • 281 – MIRN Standing Data • 284 – MIRN Additional Data <p>Note. The NMISstandingDataResponse transaction also realises these transactions when the request is a NMISstandingDataRequest transaction.</p> <p>Note: Transaction 281 will be used where the Network Operator identifies multiple MIRNs for an address.</p>
<i>Trigger</i>	Completion of processing of the NMIDiscoveryRequest transaction.
<i>Pre-conditions</i>	None
<i>Post-conditions</i>	User has the MIRN Standing Data, or a record of failure of processing of the NMIDiscoveryRequest data and all errors detected.
<i>Transaction acknowledgment specific event codes</i>	<p>3602, 3680</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

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 User in a subsequent NMIDiscoveryResponse.

Transaction Data Elements

Transaction:		NMIDiscoveryResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
NMI	M	M	
Checksum	M	M	Implemented as an attribute of the NMI aseXML element
DistributionTariff	O	O	Always Required if meter is attached for single MIRN responses. Not to be provided for multiple responses.
TransmissionZone	O	M	Always required for single MIRN responses. Not to be provided for multiple responses.

Transaction:		NMIDiscoveryResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
HeatingValueZone	O	M	Always required for single MIRN responses. Not to be provided for multiple responses.
CustomerCharacterisation	O	O	Always Required if Basic Meter is attached in SA for single MIRN responses. Not to be provided for multiple responses. Never Required in WA
CustomerClassificationCode	O	O	Mandatory in South Australia, Victoria and Queensland.
ConsumptionThresholdCode	O	O	Not required where CustomerClassificationCode is "RES".
MIRNStatus	O	M	Always required for single MIRN responses. Not to be provided for multiple responses.
MeterSerialNumber	O	O	Required if meter is attached.
PressureCorrectionFactor	O	O	Always Required if basic meter is attached for single MIRN responses. Not to be provided for multiple responses.
MeterStatus	O	M	If MeterStatus is set to "No Meter", then no meter is attached to the MIRN. Always required for single MIRN responses. Not to be provided for multiple responses. Not used in WA.
SupplyPointCode	O	O	Always Required if meter is attached for single MIRN responses. Not to be provided for multiple responses.
Current/ ReadDate	O	O	Always Required if Basic Meter is attached for single MIRN responses. Not to be provided for multiple responses.

Transaction:		NMIDiscoveryResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
NextScheduledReadDate	O	O	Always Required if Basic Meter is attached for single MIRN responses. Not to be provided for multiple responses.
MeterReadFrequency	O	O	Always Required if Basic Meter is attached for single MIRN responses. Not to be provided for multiple responses.
NextScheduledSpecialRead/ Preferred/ Date	O	O	Optional if Basic Meter is attached. Populated if there is a Special Read appointment booked against this MIRN. Not to be provided for multiple responses.
CommunicationEquipmentPresent	O	O	Required if Interval Meter is attached. Not to be provided for multiple responses.
ExcludedServicesCharges/ ChargeItem/ Category	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not to be provided for multiple responses. Not used in WA
ExcludedServicesCharges/ ChargeItem/ Amount	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not to be provided for multiple responses. Not used in WA

Transaction:		NMIDiscoveryResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
ExcludedServicesCharges/ ChargeItem/ ExpiryDate	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not to be provided for multiple responses. Not used in WA
Address	M	M	In aseXML structured format
AdditionalDataToFollow	M	M	Only applies to SA. For multiple responses the value will always be 'false'. In WA value will always be "false"
Event	M	M	Set to '0' if no errors or events to report. May be repeated any number of times.
ScheduledReadingDay Number	O	Not Included	Required in WA if a basic meter is attached, not included in SA. Not to be provided for multiple responses.
MeterTypeSizeCode	O	Not Included	Required in WA. Not to be provided for multiple responses.

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

The NMIDiscoveryResponse transaction is in the following format:

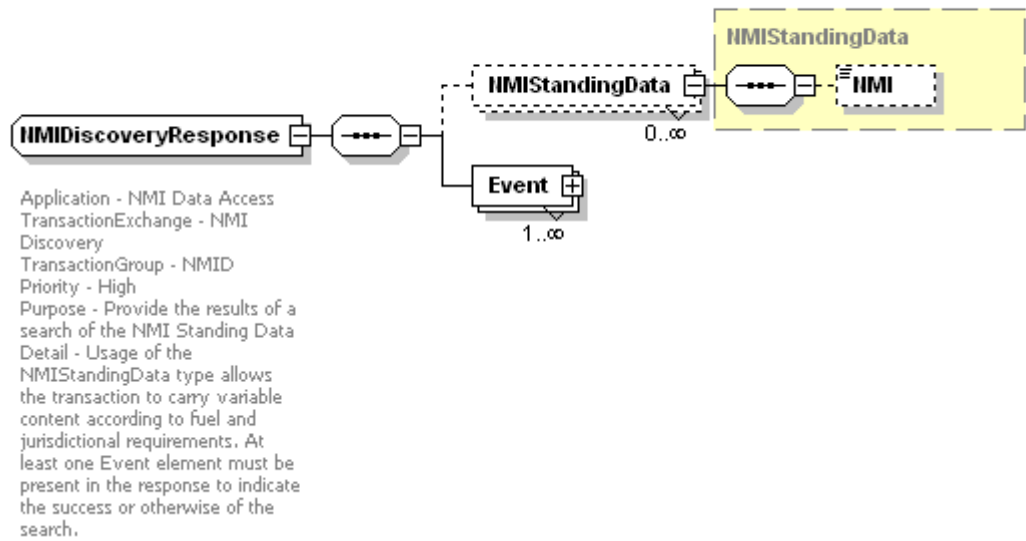


Figure 4-48 NMIDiscoveryResponse aseXML schema

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

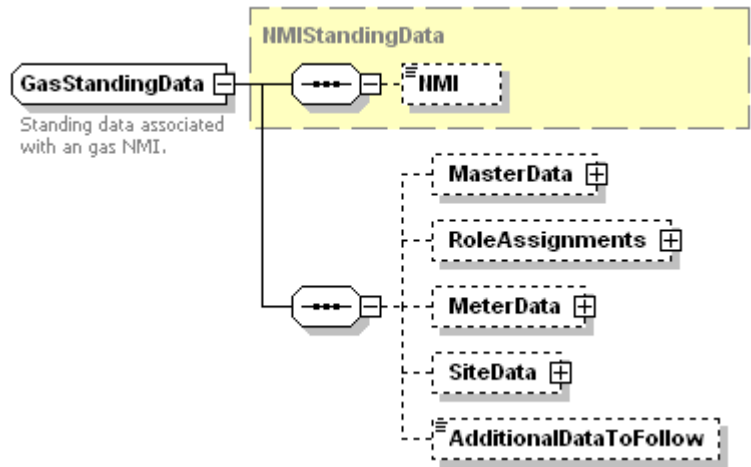


Figure 4-49 GasMasterStandingData type (high level) aseXML schema

The MasterData element schema is defined below:

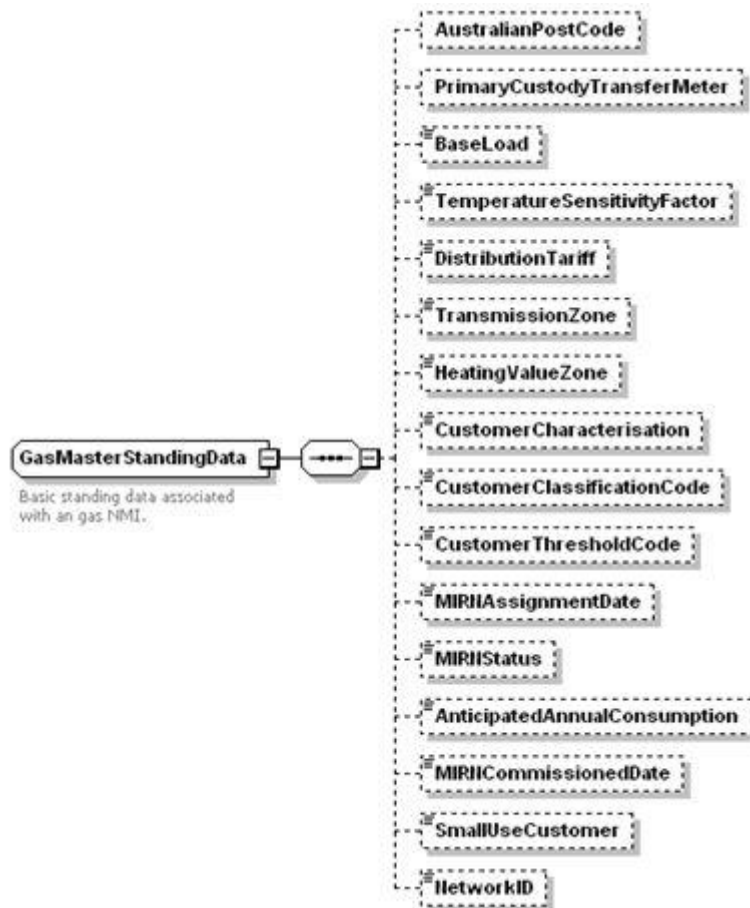


Figure 4-50 GasMeterStandingData aseXML schema

The GasMeterStandingData element schema is defined below:

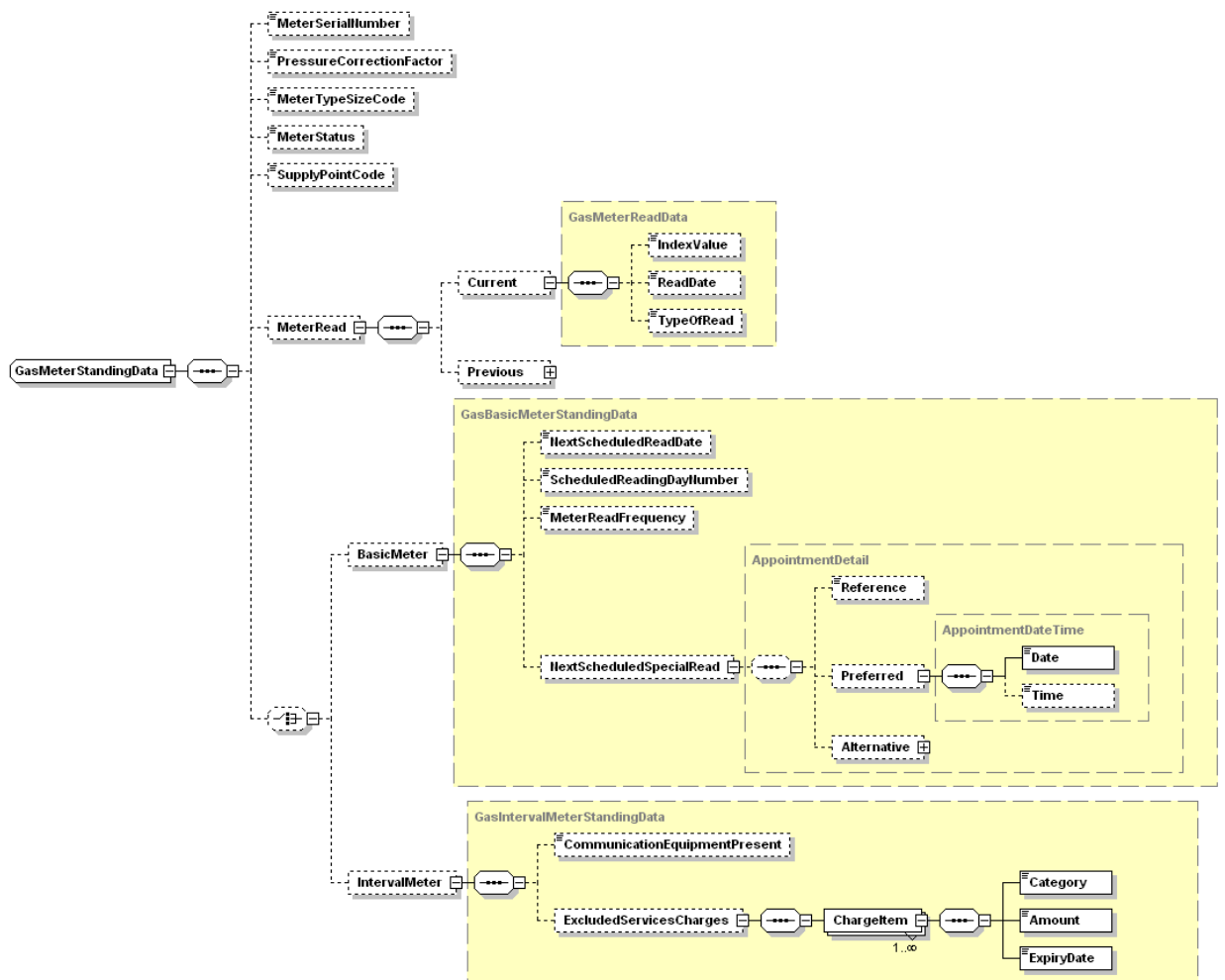


Figure 4-51 GasMasterStandingData aseXML schema

The SiteData element schema is defined below:

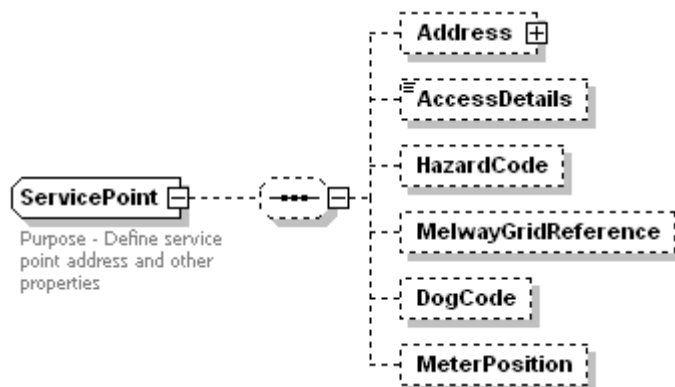


Figure 4-52 ServicePoint aseXML schema

XML Sample

Basic Meter Response

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302175415712</MessageID>
  <MessageDate>2012-03-02T16:52:50+10:00</MessageDate>
  <TransactionGroup>NMID</TransactionGroup>
  <Priority>Medium</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302175250290" transactionDate="2012-03-02T16:52:50+10:00"
initiatingTransactionID="FBS-20120201175250290">
    <NMIDiscoveryResponse version="r17">
      <NMIStandingData xsi:type="ase:GasStandingData" version="r29">
        <NMI checksum="1">5510419959</NMI>
        <MasterData>

          <DistributionTariff>Volume</DistributionTariff>
          <TransmissionZone>03</TransmissionZone>
          <HeatingValueZone>01</HeatingValueZone>
          <CustomerCharacterisation>Metropolitan Residential</CustomerCharacterisation>
          <CustomerClassificationCode>BUS</CustomerClassificationCode>
          <CustomerThresholdCode>LOW</CustomerThresholdCode>
          <MIRNAssignmentDate>2012-03-02</MIRNAssignmentDate>
          <MIRNStatus>Commissioned</MIRNStatus>
        </MasterData>
        <MeterData>
          <MeterSerialNumber>M1234</MeterSerialNumber>
          <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
          <MeterTypeSizeCode>BM7</MeterTypeSizeCode>
          <MeterStatus>Turned on</MeterStatus>
          <SupplyPointCode>Basic</SupplyPointCode>
          <MeterRead>
            <Current>
              <IndexValue>3</IndexValue>
              <ReadDate>2012-03-02</ReadDate>
              <TypeOfRead>Actual</TypeOfRead>
            </Current>
          </MeterRead>
          <BasicMeter>
            <NextScheduledReadDate>2012-03-02</NextScheduledReadDate>
            <ScheduledReadingDayNumber>34</ScheduledReadingDayNumber>
            <MeterReadFrequency>Bi Monthly</MeterReadFrequency>
            <NextScheduledSpecialRead>

              <ScheduledDate>2012-03-02</ScheduledDate>
              <Preferred>
                <Date>2012-03-02</Date>
              </Preferred>
            </NextScheduledSpecialRead>
          </BasicMeter>
        </MeterData>
        <SiteData>
          <Address>
            <AustralianAddress>
              <StructuredAddress>
                <House>
                  <HouseNumber>45</HouseNumber>
                </House>
                <Street>
                  <StreetName>High</StreetName>
                  <StreetType>ST</StreetType>
                </Street>
              </StructuredAddress>
              <SuburbOrPlaceOrLocality>Brompton</SuburbOrPlaceOrLocality>
            </AustralianAddress>
          </Address>
        </SiteData>
      </NMIStandingData>
    </NMIDiscoveryResponse>
  </Transaction>
</Transactions>
```

```

        <StateOrTerritory>SA</StateOrTerritory>
        <PostCode>5007</PostCode>
    </AustralianAddress>
</Address>
</SiteData>
<AdditionalDataToFollow>>false</AdditionalDataToFollow>
</NMISStandingData>
<Event class="Message" severity="Information">
    <Code>0</Code>
    <KeyInfo>This is the KeyInfo field; Use it for any freetext info, but the limit is 80 cha</KeyInfo>
    <Context>Context Bla</Context>
    <Explanation>All OK</Explanation>
</Event>
</NMIDiscoveryResponse>
</Transaction>
</Transactions>

```


Interval Meter Initial Response

```
<Header>
  <From description="Network Operator">XXXXXXXXXX</From>
  <To description="Retailer">XXXXXXXXXX</To>
  <MessageID>NETO-MSG-4321</MessageID>
  <MessageDate>2004-08-14T12:00:00+10:00</MessageDate>
  <TransactionGroup>NMID</TransactionGroup>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="NETO-TXN-4321" transactionDate="2004-08-14T12:00:00+10:00"
initiatingTransactionID="RETO-TXN-1234">
    <NMIDiscoveryResponse version="r4">
      <NMIStandingData xsi:type="ase:GasStandingData" version="r29">
        <NMI checksum="3">1234567890</NMI>
        <MasterData>
          <DistributionTariff>1A1R</DistributionTariff>
          <TransmissionZone>09</TransmissionZone>
          <HeatingValueZone>03</HeatingValueZone>
          <MIRNStatus>Commissioned</MIRNStatus>
        </MasterData>
        <MeterData>
          <MeterSerialNumber>M1234</MeterSerialNumber>
          <PressureCorrectionFactor>0.9</PressureCorrectionFactor>
          <MeterTypeSizeCode>IM1</MeterTypeSizeCode>
          <MeterStatus>Turned on</MeterStatus>
          <SupplyPointCode>Interval</SupplyPointCode>
          <IntervalMeter>
            <CommunicationEquipmentPresent>true</CommunicationEquipmentPresent>
            <MeterTypeSizeCode>IM1</MeterTypeSizeCode>
          </IntervalMeter>
        </MeterData>
        <SiteData>
          <Address>
            <AustralianAddress>
              <StructuredAddress>
                <House>
                  <HouseNumber>25</HouseNumber>
                </House>
                <Street>
                  <StreetName>Moray</StreetName>
                  <StreetType>ST</StreetType>
                </Street>
              </StructuredAddress>
              <SuburbOrPlaceOrLocality>Kew</SuburbOrPlaceOrLocality>
              <StateOrTerritory>WA</StateOrTerritory>
              <PostCode>6101</PostCode>
            </AustralianAddress>
          </Address>
        </SiteData>
        <AdditionalDataToFollow>false</AdditionalDataToFollow>
      </NMIStandingData>
      <Event>
        <Code>0</Code>
      </Event>
    </NMIDiscoveryResponse>
  </Transaction>
</Transactions>
```

Interval Meter Additional Data Response (SA only)

```

<Header>
  <From description="NO Networks">NETO</From>
  <To description="Retail Operator">RETO</To>
  <MessageID>NETO-MSG-4321</MessageID>
  <MessageDate>2004-08-14T12:00:00+10:00</MessageDate>
  <TransactionGroup>NMID</TransactionGroup>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="NETO-TXN-4321" transactionDate="2004-08-14T12:00:00+10:00"
initiatingTransactionID="RETO-TXN-1234">
    <NMIDiscoveryResponse version="r4">
      <NMIStandingData xsi:type="ase:GasStandingData" version="r29">
        <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>SA</StateOrTerritory>
              <PostCode>8101</PostCode>
            </AustralianAddress>
          </Address>
        </SiteData>
        <AdditionalDataToFollow>>false</AdditionalDataToFollow>
      </NMIStandingData>
      <Event>
        <Code>0</Code>
      </Event>
    </NMIDiscoveryResponse>
  </Transaction>
</Transactions>

```

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

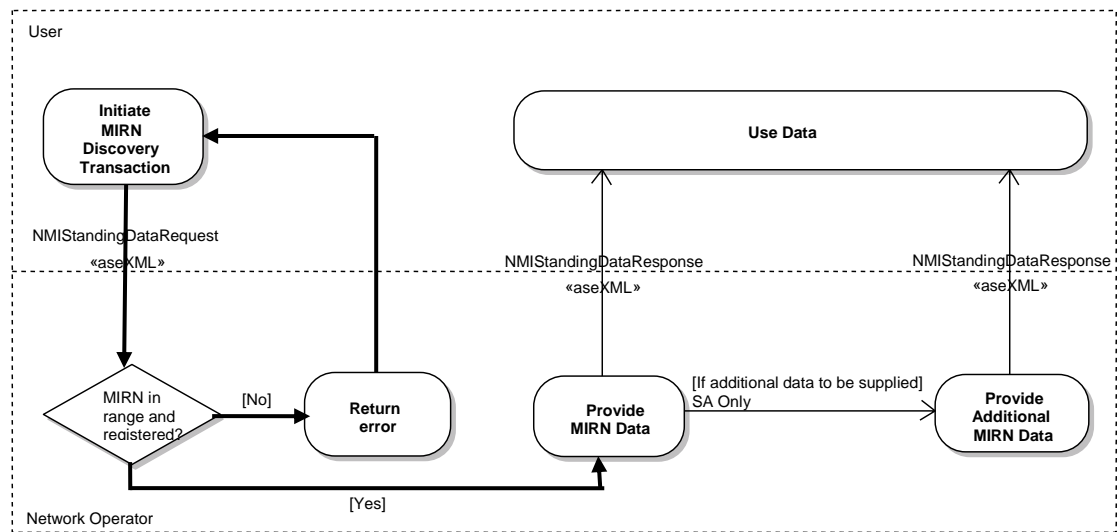


Figure 4-53 NMI Standing Data Activity Diagram

Process Sequence

A User issues a NMISstandingDataRequest 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:

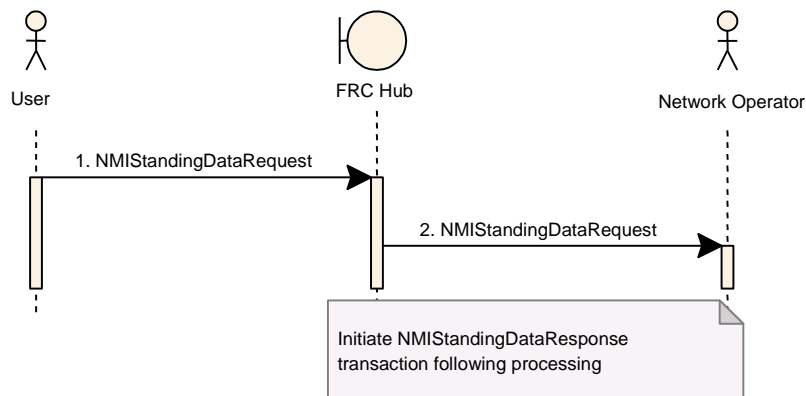


Figure 4-54 NMI Standing Data Request Sequence Diagram

ID	AseXML Transaction	From Object	To Object	Process Flow
1	NMISstandingDataRequest	User	FRC Hub	MIRN 4A
2	NMISstandingDataRequest	FRC Hub	NO/ Network Operator	

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

In SA, 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 User that more data is to follow. The second response follows when the additional data becomes available.

After a Network Operator has processed the request a NMISTandingDataResponse transaction is returned to the User to provide the required data. A second NMISTandingDataResponse transaction will be provided if additional MIRN data must be supplied. This does not apply in WA

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

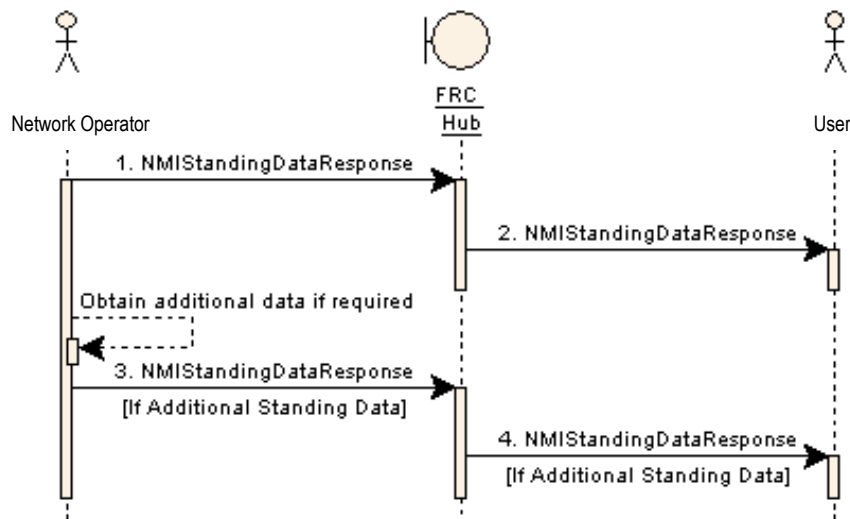


Figure 4-55 NMI Standing Data Response Sequence Diagram

ID	AseXML Transaction	From Object	To Object	Process Flow
1	NMISTandingDataResponse	Network Operator	FRC Hub	MIRN 4A
2	NMISTandingDataResponse	FRC Hub	User	
3	NMISTandingDataResponse	Network Operator	FRC Hub	MIRN 4A
4	NMISTandingDataResponse	FRC Hub	User	

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

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the GPTWG Transaction Definition Table:</p> <ul style="list-style-type: none"> 280 – Discovery Request <p>Note:</p> <p>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.</p>
<i>Trigger</i>	This interface is triggered when a User requests MIRN Standing Data for a known MIRN.
<i>Pre-conditions</i>	User has Explicit Informed Consent from the subject customer in respect of the distribution supply point referenced by the MIRN.
<i>Post-conditions</i>	Network Operator has logged the Standing Data Request
<i>Transaction acknowledgment specific event codes</i>	<p>3638, 3660</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

The NMISTandingDataRequest transaction is used by the User to request MIRN Standing Data from a Network Operator.

Transaction Data Elements

Transaction:		NMISTandingDataRequest
Received From:		User
Sent To:		Network Operator
Data Element	Victoria & SA/WA Mandatory / Optional / Not Required	Usage
NMI	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:

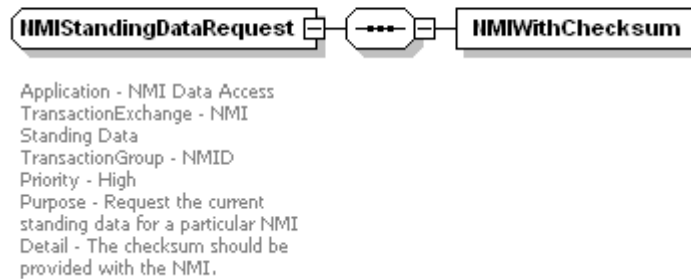


Figure 4-56 NMISTandingDataRequest aseXML schema

XML Sample

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302184817151</MessageID>
  <MessageDate>2012-03-02T17:48:09+10:00</MessageDate>
  <TransactionGroup>NMID</TransactionGroup>
  <Priority>Medium</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302184809901" transactionDate="2012-03-02T17:48:09+10:00">
    <NMISTandingDataRequest version="r4">
      <NMI checksum="1">5510419959</NMI>
    </NMISTandingDataRequest>
  </Transaction>
</Transactions>
```

4.3.2.6. NMISTandingDataResponse

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the GPTWG Transaction Definition Table:</p> <ul style="list-style-type: none"> • 281 – MIRN Standing Data • 284 – MIRN Additional Data <p>Note. The NMIDiscoveryResponse transaction also realises these transactions when the request is a NMIDiscoveryRequest transaction.</p>
<i>Trigger</i>	Completion of processing of the NMISTandingDataRequest transaction.
<i>Pre-conditions</i>	None
<i>Post-conditions</i>	User has the MIRN Standing Data, or a record of failure of processing of the NMISTandingDataRequest data and all errors detected.
<i>Transaction acknowledgment specific event codes</i>	<p>3602</p> <p>(Also the generic event codes 3603, 3659, 3662, 3673 can be used)</p>

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

Transaction Data Elements

Transaction:		NMISstandingDataResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
NMI	M	M	
checksum	M	M	Implemented as an attribute of the NMI aseXML element
DistributionTariff	O	O	Required if meter is attached
TransmissionZone	M	M	
HeatingValueZone	M	M	
CustomerCharacterisation	O	O	Required in SA if Basic Meter is attached. Not Required in WA
MIRNStatus	M	M	If "Commissioned" indicates that a meter is attached. If so meter data is to be provided.
MeterSerialNumber	O	O	Required if meter is attached
PressureCorrectionFactor	O	O	Required if meter is attached
MeterStatus	O	O	Required if meter is attached
SupplyPointCode	O	O	Required if meter is attached
Current/ ReadDate	O	O	Required if Basic Meter is attached.
NextScheduledReadDate	O	O	Required if Basic Meter is attached.
MeterReadFrequency	O	O	Required if Basic Meter is attached.
NextScheduledSpecialRead/ Preferred/ Date	O	O	Optional if Basic Meter is attached. Populated if there is a Special Read appointment booked against this MIRN.
CommunicationEquipmentPresent	O	O	Required if Interval Meter is attached.

Transaction:		NMIStandingDataResponse	
Received From:		Network Operator	
Sent To:		User	
Data Element	SA & WA: Mandatory / Optional / Not Required	VIC: Mandatory / Optional / Not Required	Usage
ExcludedServicesCharges/ ChargeItem/ Category	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not used in WA
ExcludedServicesCharges/ ChargeItem/ Amount	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not used in WA
ExcludedServicesCharges/ ChargeItem/ ExpiryDate	O	O	Only used for Interval meters. This information may be provided in a subsequent NMIDiscoveryResponse message if the AdditionalDataToFollow element is set to "true". Not used in WA
Address	M	M	
AdditionalDataToFollow	M	M	Will always be "false" for WA. May be "true" or "false" for SA.
Event	M	M	Set to '0' if no errors or events to report. May be repeated any number of times.
ScheduledReadingDay Number	O	Not Included	Required in WA (if a basic meter is attached), not included in SA
MeterTypeSizeCode	O	Not Included	Required in WA, not included in SA

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

The NMIShoppingDataResponse transaction is in the following format:

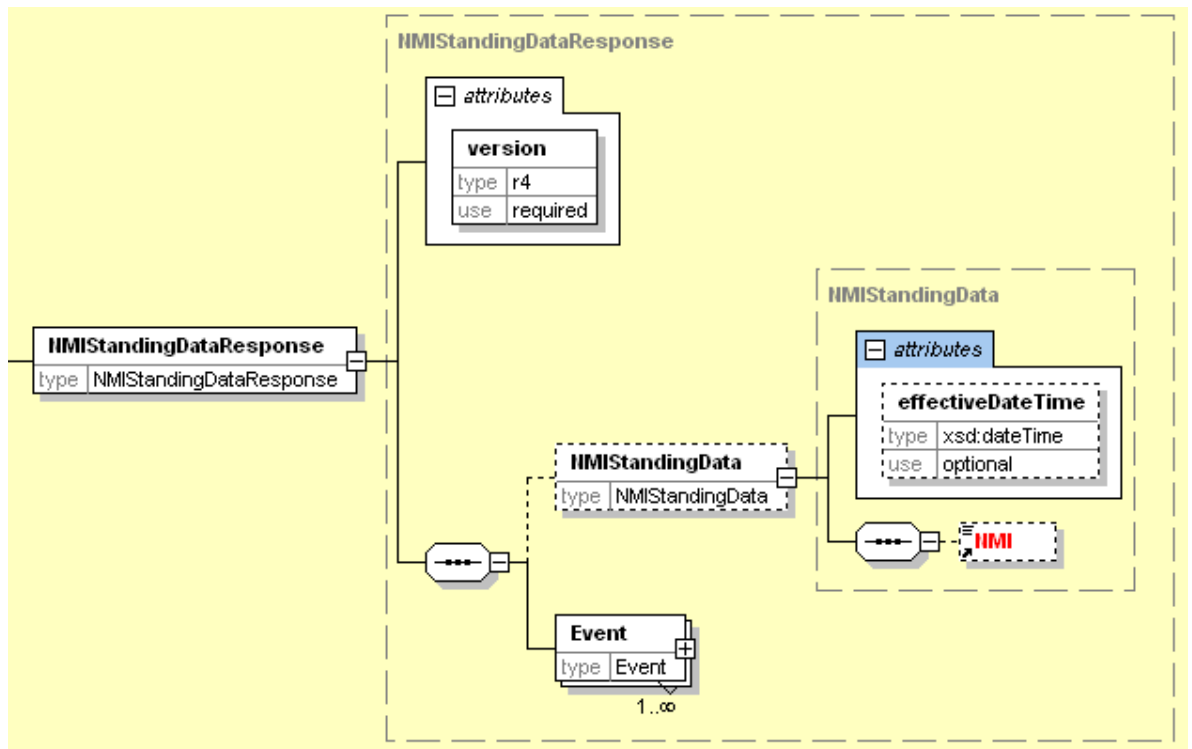


Figure 4-57 NMIShoppingDataResponse aseXML schema

See above section on MIRN Discovery for the format of the GasStandingData type construct

XML Sample

The XML data for a NMIShoppingDataResponse is the same as the data for a NMIDiscoveryResponse with the exception of the transaction name. See above section on MIRN Discovery 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 Users and Network Operators 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 User
	67	Meter Site Access Information Change from Network Operator
	68	Supply Point Information
	69	Address Information Change from Network Operator
	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 the customer (via the User), the User itself, the meter reading personnel (via the Network Operator) or the Network Operator itself.

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

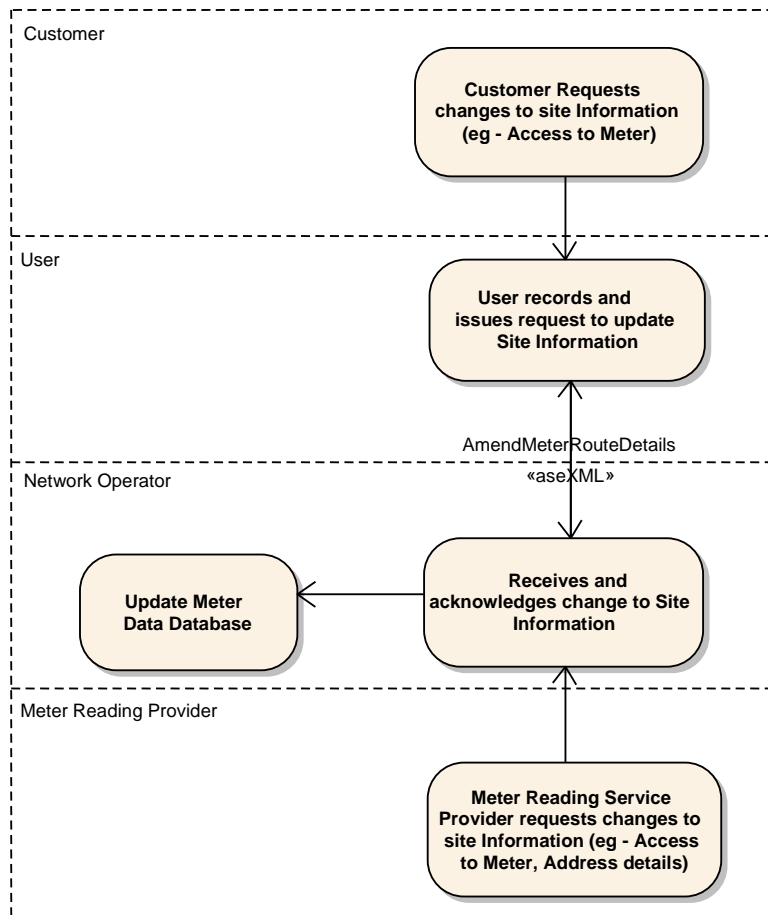


Figure 4-58 Update Site Access Information Activity Diagram

Process Sequence

Either a Network Operator or a User 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:

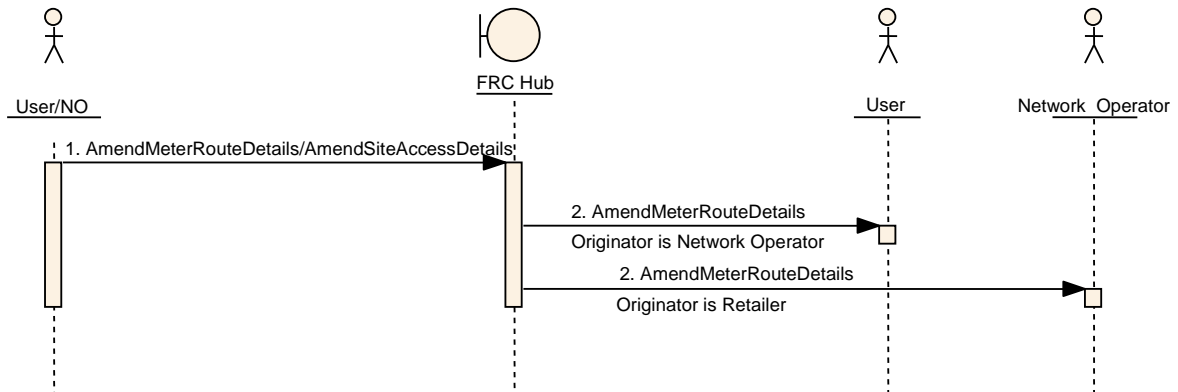


Figure 4-59 Update Site Access Information Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	AmendMeterRouteDetails/ AmendSiteAccessDetails	User or Network Operator	FRC Hub	DB1 & MR7
2	AmendMeterRouteDetails/ AmendSiteAccessDetails	FRC Hub	Network Operator or User	

4.4.2.1. *AmendMeterRouteDetails/AmendSiteAccessDetails*

<i>Transaction Definition Table cross-reference</i>	This interface realises the following transactions from the Transaction Definition Table: <ul style="list-style-type: none"> • 66– Meter Site Access Information Change from User • 67– Meter Site Access Information Change from Network Operator
<i>Trigger</i>	This interface is triggered when either a User or Network Operator makes a change to a customer's site access data.
<i>Pre-conditions</i>	None
<i>Post-conditions</i>	Receiving participant has recorded the data change.
<i>Transaction acknowledgment specific event codes</i>	3677 (Also the generic event codes 3603, 3659, 3662, 3673 can be used)

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

Transaction Data Elements

Transaction:		AmendMeterRouteDetails/ AmendSiteAccessDetails
Received From:		User or Network Operator
Sent To:		Network Operator or User
Data Element	Victoria & SA/WA 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
thexsi:type="ase:GasStandingDataUpdate" construct for theAmendSiteAccessDetails element.
The amendMeterRouteDetails/AmendSiteAccessDetails transaction is in the following format:

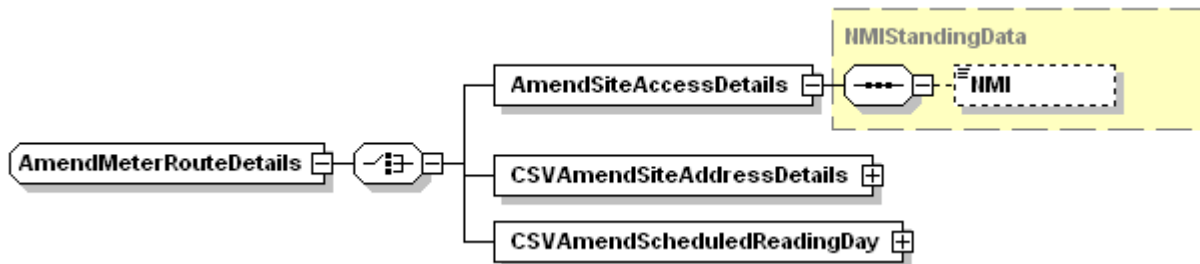


Figure 4-60 AmendMeterRouteDetails/AmendSiteAccessDetails aseXML schema

The GasStandingDataUpdate type construct is in the following format:

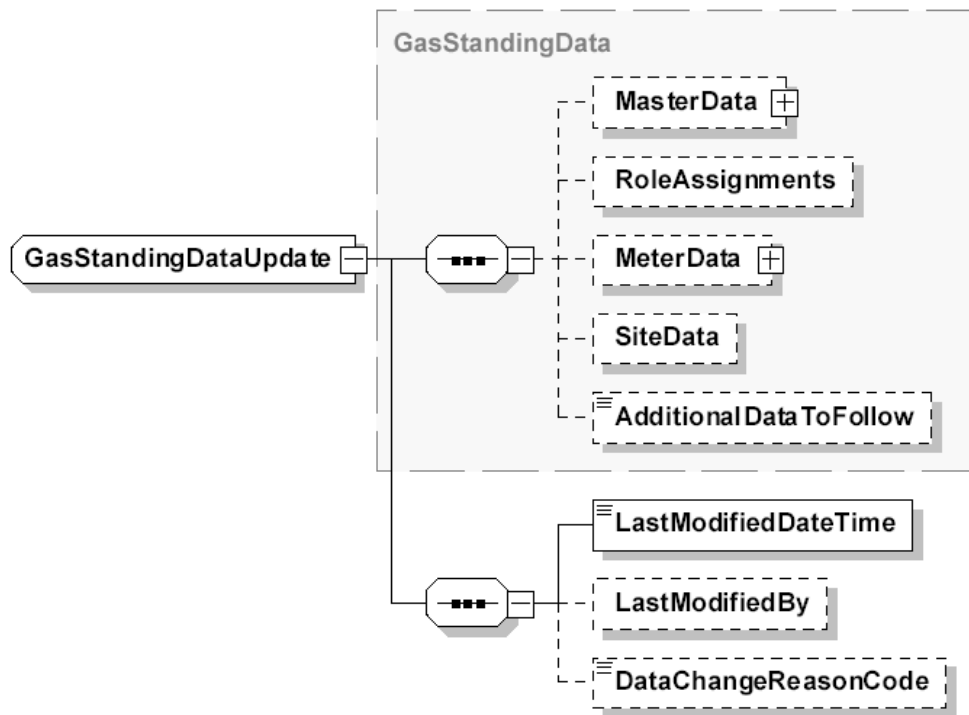


Figure 4-61 GasStandingDataUpdate type aseXML schema

XML Sample

```
<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302150712180</MessageID>
  <MessageDate>2012-03-02T14:06:45+10:00</MessageDate>
  <TransactionGroup>SITE</TransactionGroup>
  <Priority>Low</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302150645789" transactionDate="2012-03-02T14:06:45+10:00">
    <AmendMeterRouteDetails version="r19">
      <AmendSiteAccessDetails xsi:type="ase:GasStandingDataUpdate" version="r29">
        <NMI checksum="7">5767656543</NMI>
        <MeterData>
          <BasicMeter>
            <MeterReadFrequency>Monthly</MeterReadFrequency>
          </BasicMeter>
        </MeterData>
        <SiteData>
          <DogCode>Savage</DogCode>
        </SiteData>
        <LastModifiedDateTime>2012-03-02T14:06:45+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. Changes to this information may come from a customer – via the User, or identified by the Network Operator through changes to municipal boundaries, etc.

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

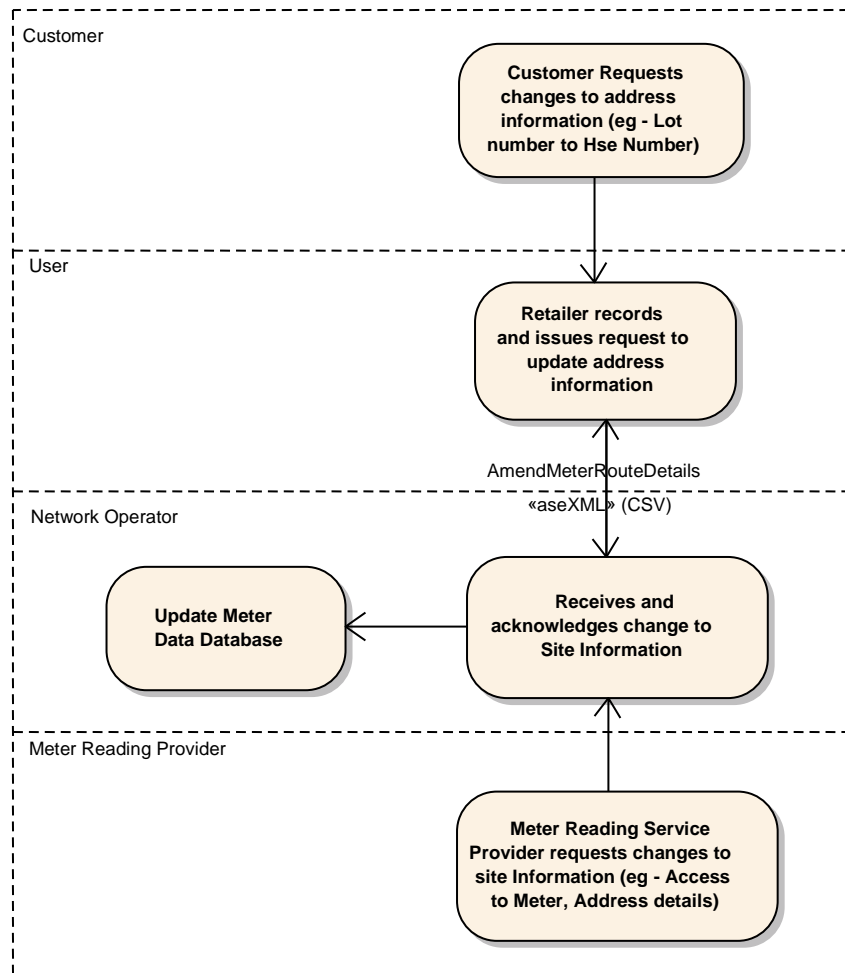


Figure 4-62 Update Site Address Information Activity Diagram

Process Sequence

Either a Network Operator or a User 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 User makes a change to a customer's characterisation data.

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

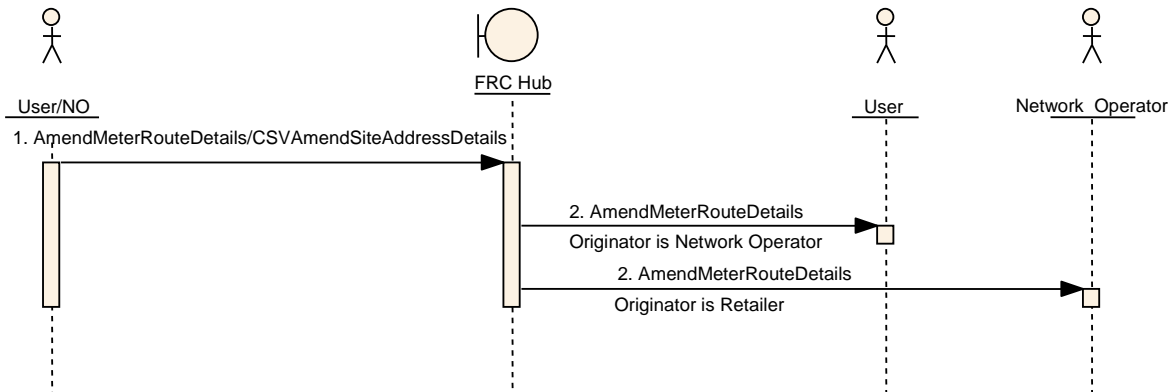


Figure 4-63 Update Site Address Information Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	AmendMeterRouteDetails/ CSVAmendSiteAddressDetails	User or Network Operator	FRC Hub	DB1
2	AmendMeterRouteDetails/ CSVAmendSiteAddressDetails	FRC Hub	Network Operator or User	

4.4.3.1. *AmendMeterRouteDetails/CSVAmendSiteAddressDetails*

<i>Transaction Definition Table cross-reference</i>	This interface realises the following transactions from the Transaction Definition Table: <ul style="list-style-type: none"> 68 – Supply Point Information 69 – Address Information Change from DB
<i>Trigger</i>	This interface is triggered when a User or a Network Operator changes a customer's address data or customer classification or a User makes a change to a customer's characterisation data.
<i>Pre-conditions</i>	None
<i>Post-conditions</i>	Receiving participant has recorded the changed data
<i>Transaction acknowledgment specific event codes</i>	3665, 3666, 3667, 3668, 3670, 3672, 3674, 3677 (Also the generic event codes 3603, 3659, 3662, 3673 can be used)

The AmendMeterRouteDetails/CSVAmendSiteAddressDetails transaction is used by the User or Network Operator to notify the other participant of a change to a customer's site address or customer classification or characterisation data. The data is provided in CSV format.

Transaction Data Elements

Transaction:		AmendMeterRouteDetails/ CSVAmendSiteAddressDetails
Received From:		User (68) or Network Operator (69)
Sent To:		Network Operator (68) or User (69)
Data Element	Victoria and SA/WA 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. In SA, 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. In SA, If Customer Classification but not the address details 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/procedures](#) of the address schema in aseXML, which in turn aligns to AS4590. The elements are identified below:

CSVAmendSiteAddressDetails/CSVData		
Heading	Victoria and SA/WA Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Flat_Or_Unit_Type	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
Flat_Or_Unit_Number	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard

CSVAmendSiteAddressDetails/CSVData		
Heading	Victoria and SA/WA Mandatory/Optional	Comment
Floor_Or_Level_Type	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
Floor_Or_Level_Number	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
Building_Or_Property_Name_1	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
Building_Or_Property_Name_2	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard. Not used in WA.
Location_Description	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
House_Number_1	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
House_Number_Suffix_1	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
House_Number_2	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard. Not used in WA.
House_Number_Suffix_2	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard. Not used in WA.
Lot_Number	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
Street_Name_1	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
Street_Type_1	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard

CSVAmendSiteAddressDetails/CSVData		
Heading	Victoria and SA/WA Mandatory/Optional	Comment
Street_Suffix_1	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard
Street_Name_2	O	Optional Address Type as per Australian Standard. Not used in WA.
Street_Type_2	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard. Not used in WA.
Street_Suffix_2	O	Optional, required where this optional field of the address is changing in SA. Address Type as per Australian Standard. Not used in WA.
Suburb_Or_Place_Or_Locality	O	Optional, required where this optional field of the address is changing in SA. 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 is changing in SA. Address Type as per Australian Standard
Address_Change_Effective_Date	M	
Customer_Characterisation	O	Required if transaction is initiated by a User. Not used in WA.
Customer_Classification_Code	O	Optional, required where customer classification is changing and transaction is initiated by a User.
Customer_Threshold_Code	O	Optional, required where consumption threshold is changing and transaction is initiated by a Network Operator.
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:

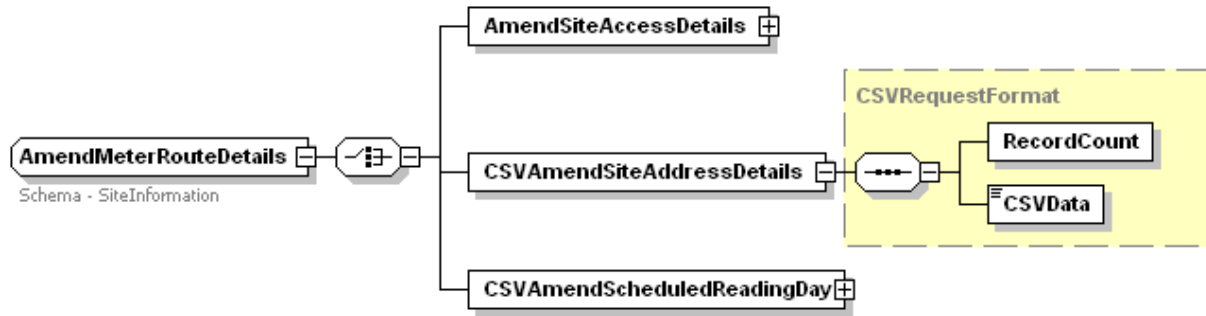


Figure 4-64 AmendMeterRouteDetails/CSVAmendSiteAddressDetails aseXML schema

XML Sample

```

<Header>
  <From description="">FBSTEST</From>
  <To description="">DEV</To>
  <MessageID>20120302150943869</MessageID>
  <MessageDate>2012-03-02T14:09:31+10:00</MessageDate>
  <TransactionGroup>SITE</TransactionGroup>
  <Priority>Low</Priority>
  <Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-20120302150931290" transactionDate="2012-03-02T14:09:31+10:00">
    <AmendMeterRouteDetails version="r19">
      <CSVAmendSiteAddressDetails>
        <RecordCount>1</RecordCount>

        <CSVData>NMI,NMI_Checksum,Flat_Or_Unit_Type,Flat_Or_Unit_Number,Floor_Or_Level_Type,Floor_Or_Level_Number,Building_Or_Property_Name_1,Building_Or_Property_Name_2,Location_Description,House_Number_1,House_Number_Suffix_1,House_Number_2,House_Number_Suffix_2,Lot_Number,Street_Name_1,Street_Type_1,Street_Suffix_1,Street_Name_2,Street_Type_2,Street_Suffix_2,Suburb_Or_Place_Or_Locality,State_Or_Territory,Postcode,Delivery_Point_Identifier,Address_Change_Effective_Date,Customer_Characterisation,Customer_Classification_Code,Consumption_Threshold_Code,Last_Modified_Date_Time
5767656543,7,,,,,,,,42,,,,,GEORGE,ST,,,,,Brompton,SA,5007,,2011-06-12,MB,,,2011-06-13T08:05:41+10:00
      </CSVData>
      </CSVAmendSiteAddressDetails>
    </AmendMeterRouteDetails>
  </Transaction>
</Transactions>
  
```

4.5. Network Billing

4.5.1. Overview

Network Billing transactions are used by Network Operators to provide Users 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) for SA only
	332	Network DUoS Billing Details (Tariff D) for SA only
	331/332 (WA)	Network DUoS Billing Details (Tariff H) for WA only
	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 User from the Network Operator to enable DUoS invoicing to be carried out.

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

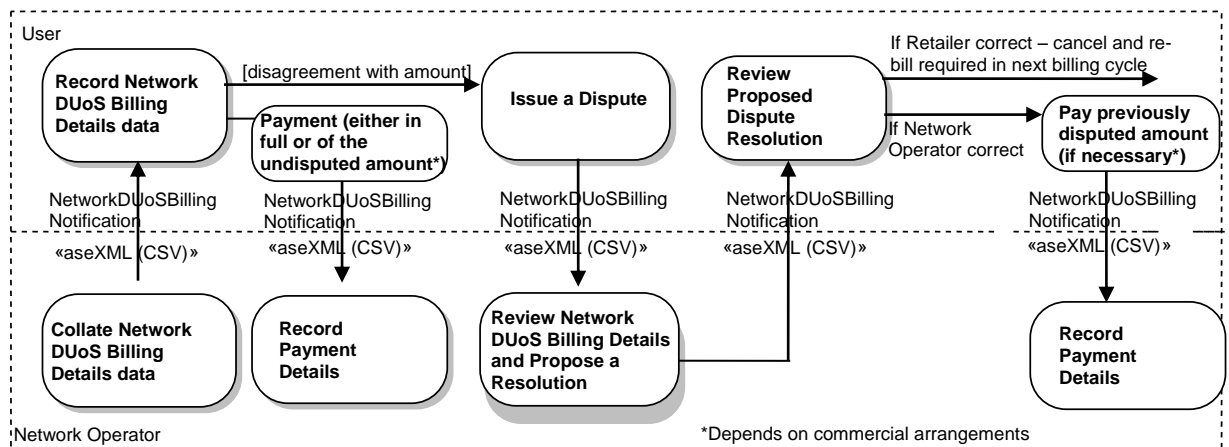


Figure 4-65 Network DUoS Billing Activity Diagram

Process Sequence

In accordance with an agreed schedule a Network Operator will collate the applicable Network DUoS Billing details for a User and forward these details in CSV format via a NetworkDUoSBillingNotification transaction. These details will be provided once per billing period as defined in contractual arrangements between Network Operators and Users.

A formal tax invoice will also be provided via a notice (e.g. e-mail). This invoice will list all the supporting information provided (via aseXML- csv). Where contractual arrangements define due dates for payments based on a defined period following receipt of an invoice, that period will start upon receipt of both the formal invoice and all supporting information. The user must then reconcile the total value of the NetworkDUoSBillingNotification to the formal tax invoice to confirm that there is a match.

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

The User may not dispute 'part' of a line – the whole line will be disputed.

For charges that are payable (which, depending on the contractual arrangements between Network Operators and users, may be the whole amount of the invoice or those charges that are not under dispute), the User will issue a Payment Advice via a NetworkDUoSBillingNotification transaction with details attached in CSV format.

For changes that are under dispute, the Network Operator will check its system, resolve the dispute and notify the User 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.

Note: processes for handling part payments or interest payments for disputed amounts are not addressed by the transactions and processes defined in the document. This issue will be handled through manual processes.

Depending on the way the dispute has been resolved, cancel and re-bill may follow or no changes to billing details will apply. If a dispute is resolved in the User's favour, a full cancellation of the original line item and re-bill (if applicable) must be sent to the User in a subsequent NetworkDUoSBillingNotification transaction. Upon the dispute resolution, if additional payment is required, the User 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 User can withhold payment of the undisputed charges until the disputes are resolved.

Forward estimates are provided in SA via a 'notice' (not aseXML). Forward estimates can be disputed but not via an aseXML transaction.

'Retrospective' disputes, i.e. those which dispute a previously paid amount, may be submitted to Network Operators via aseXML. In the case of retrospective disputes in WA, where the User has paid the invoice line the User remits both the re-bill line and the cancel line included in the next invoice.

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

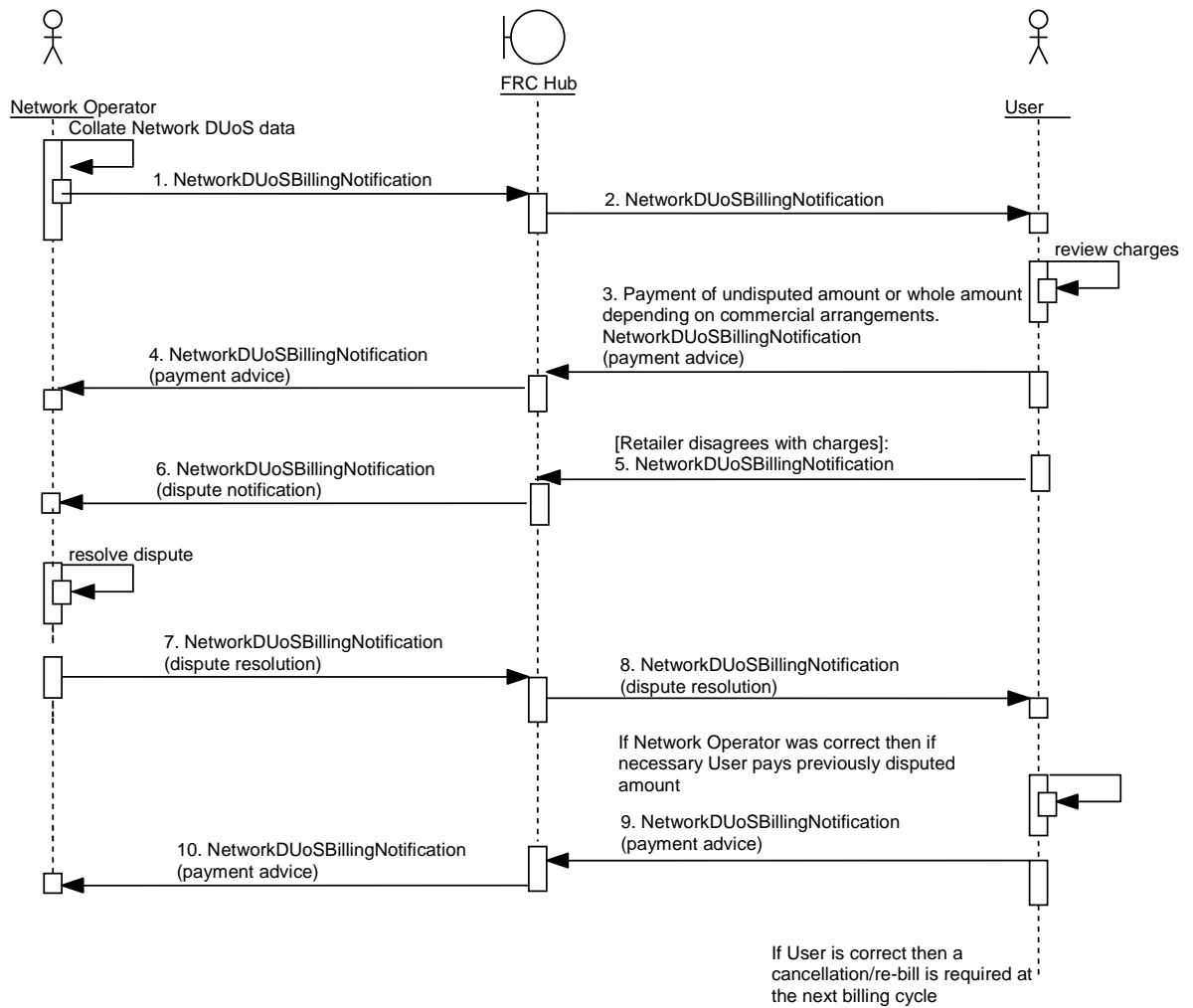


Figure 4-66 Network DUoS Billing Sequence Diagram

ID	aseXML Transaction	From Object	To Object	Process Flow
1	NetworkDUoSBillingNotification	Network Operator	FRC Hub	
2	NetworkDUoSBillingNotification	FRC Hub	User	
3	NetworkDUoSBillingNotification	User	FRC Hub	
4	NetworkDUoSBillingNotification	FRC Hub	Network Operator	
5	NetworkDUoSBillingNotification	User	FRC Hub	
6	NetworkDUoSBillingNotification	FRC Hub	Network Operator	
7	NetworkDUoSBillingNotification	Network Operator	FRC Hub	
8	NetworkDUoSBillingNotification	FRC Hub	User	
9	NetworkDUoSBillingNotification	User	FRC Hub	

ID	aseXML Transaction	From Object	To Object	Process Flow
10	NetworkDUoSBillingNotification	FRC Hub	Network Operator	

4.5.2.1. NetworkDUoSBillingNotification

<i>Transaction Definition Table cross-reference</i>	<p>This interface realises the following transactions from the GPTWG Transaction Definition Table:</p> <ul style="list-style-type: none"> • 331 – Network DUoS Billing Details (Tariff V) – SA only • 332 – Network DUoS Billing Details (Tariff D) – SA only • 331/332(WA) – Network DUoS Billing Details (Tariff H) – WA only • 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)
<i>Trigger</i>	This interface is triggered as agreed between participants to provide tariff data (331, 332, 350) or when a User disagrees with network billing charges (351, 352,) or when a user pays network billing charges (353).
<i>Pre-conditions</i>	None
<i>Post-conditions</i>	User has recorded the CSV Network DUoS Billing data and resolved any disputes that may have arisen from the billing data.
<i>Transaction acknowledgment specific event codes</i>	3665, 3666, 3670, 3672, 3674 (Also the generic event codes 3603, 3659, 3662, 3673 can be used)

The NetworkDUoSBillingNotification transaction is used by the Network Operator to provide Network DUoS Billing data in CSV format to a User, to resolve charges disputes arisen from the billing data or to advise of payment.

Transaction Data Elements

Transaction:		NetworkDUoSBillingNotification
Received From:		Network Operator (331,332,350,352) or User (351,353)
Sent To:		User (331,332,350,352) or Network Operator (351,353)
Data Element	Victoria, SA and WA 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" .
CSVNetworkDUoSDataExclude dServices/ 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" .
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" .

Transaction:		NetworkDUoSBillingNotification
Received From:		Network Operator (331,332,350,352) or User (351,353)
Sent To:		User (331,332,350,352) or Network Operator (351,353)
Data Element	Victoria, SA and WA Mandatory / Optional / Not Required	Usage
CSVNetworkDUoSDataDisputeResolution/ 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" .
CSVNetworkDUoSDataPaymentAdvice/ 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, i.e. either CSVNetworkDUoSDataTariffV, or CSVNetworkDUoSDataTariffD, or CSVNetworkDUoSDataTariffH, or CSVNetworkDUoSDataExcludedServices, or CSVNetworkDUoSDataDisputeNotification, or CSVNetworkDUoSDataDisputeResolution, or CSVNetworkDUoSDataPaymentAdvice can be populated.

CSV Elements

CSVNetworkDUoSDataTariffV/CSVData (Victoria and SA only)		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Old_Transaction_ID	O	Required 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	Required 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	This is the period (month) to which the charges relate (the consumption period). If the consumption period covers more than one month, then the last month of that consumption period is entered. (note: in Victoria 'period' is currently defined as the 'the month in which this charge has been raised')
Billing_Days	M	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. [note this is the current Vic definition]
Variable_Peak	M	In SA, Envestra will not provide this information. The element will be populated with '0'.
Variable_Off_Peak	M	In SA, Envestra will populate this data element with 100% of the variable charge. Exclusive of GST
Fixed_Charge	M	Exclusive of GST
Total	M	Exclusive of GST

CSVNetworkDUoSDataTariffV/CSVData (Victoria and SA only)		
Heading	Mandatory/ Optional	Comment
GST_Amount	M	
Type_of_Read	M	
Consumption_MJ	M	
Current_Read_Date	M	
Previous_Read_Date	M	
Distributor_ID	M	The Network Operator's GBO ID
Network_Tariff_Code	M	

CSVNetworkDUoSDataTariffD/CSVData (SA only)		
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	This is the period (month) to which the charges relate (the consumption period). If the consumption period covers more than one month, then the last month of that consumption period is entered.

CSVNetworkDUoSDataTariffD/CSVData (SA only)		
Heading	Mandatory/ Optional	Comment
Max_MHQT_Y	M	In SA, Envestra will not provide this information and the data element will be populated as '0'
Max_MHQT_P	M	In SA, Envestra will not provide this information and the data element will be populated as '0'
Expected_MHQ	M	In SA, this data element will contain the Contracted MDQ (in whole Megajoules)
Consumption_GJ	M	In SA, consumption data will not be provided.
Charge_TP	M	
GST_Amount	M	
Distributor_ID	M	The Network Operator's GBO ID
Network_Tariff_Code	M	

CSVNetworkDUoSDataTariffH/CSVData – WA only		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	Number of covering "Paper Invoice"
Transaction_ID	M	Invoice line item number
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 other times
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 other times
Transaction_Date	M	This is the date the invoice line was created
Adjustment_Indicator	M	Cancelled, Re-billed or New

CSVNetworkDUoSDataTariffH/CSVData – WA only		
Heading	Mandatory/ Optional	Comment
Billing_Days	M	The number of days in the bill period — calculated as the difference between the Current_Read_Date and Previous_Read_Date dates.
Variable_Charge_1	M	Used for <i>Usage</i> related variable charges for all steps. Exclusive of GST
Variable_Charge_2	M	Used for <i>Peak</i> usage related variable charges. Exclusive of GST
Variable_Charge_3	M	Used for <i>Overrun</i> related variable charges. Exclusive of GST
Variable_Charge_4	M	Used for all <i>Other</i> variable charges. Exclusive of GST
Fixed_Charge_1	M	Used for <i>Standing Charges</i> . Exclusive of GST
Fixed_Charge_2	M	Used for <i>User Specific Charges</i> . Exclusive of GST
Fixed_Charge_3	M	Used for <i>Demand Charges</i> . Exclusive of GST
Fixed_Charge_4	M	Used for <i>Other</i> fixed charges. Exclusive of GST
Total	M	Exclusive of GST
GST_Amount	M	
Type_of_Read	M	Actual, Estimated, Substituted or Deemed
Consumption_MJ	M	Consumption is in MJ
Current_Read_Date	M	Same as reading end date for basic meters, and read date for interval meters
Previous_Read_Date	M	Reading end date of the previous read period
Distributor_ID	M	The Network Operator's GBO ID
Network_Tariff_Code	M	The 4 digit distribution tariff defined in the RMR with a 6 digit extension making the haulage charges specific for the MIRN

The CSVNetworkDUoSDataTariffD/CSVData format will be used to provide charge details for TariffD, Negotiated Services and Term Sheet charges. The charges will be contained in separate csv files based on these three charge types. The charge types can be determined by looking at the Network_Tariff_Code CSV element within the file – if the Network Tariff Code = 'nDemand' then the file contains all (and only) TariffD charges for the billing period. If the Network_Tariff_Code = 'Negotiated' then the file contains either all (and only) Negotiated Service charges or all (and only) Term Sheet charges for the billing period. The Network_Tariff_Code must be consistent across all charges in the file.

Line Items

For an Interval Meter, the CSV payload in the Network DUoS Billing Details Tariff H transaction sent to the Retailer shows each individual day's charges for each MIRN. Therefore if a billing period spans 14 days, there will be 14 Line Items per MIRN. Each Line Item will contain the day's Usage as well as the day's fixed charges. Each Line Item is to have its own Transaction ID (Note: in the case of basic meters each line will refer to a single meter reading).

This will enable the Retailer to match the daily consumption received via the 'Interval Meter Data' transactions (defined in Appendix E) from the HTTPS Site, to each individual line item within the invoice.

As an example – a billing period of 14 days for a MIRN would look similar to this:

M/I	M/I_Checksum	Invoice_Number_No	Transaction_ID	Old_Transaction_ID	Old_Invoice_Number_No	Transaction_Date	Adjustment_Indicator	Billing_Days	Variable_Charge_1	Variable_Charge_2	Variable_Charge_3	Variable_Charge_4	Fixed_Charge_1	Fixed_Charge_2	Fixed_Charge_3	Fixed_Charge_4	Total	GST_Amount	Type_of_Read	Consumption_MJ	Current_Read_Date	Previous_Read_Date	Distributor_ID	Network_Tariff_Code
5600002200	6	1438	759444			15/06/2004	N	1	66.51	0	0	0	1.38	8	0	0	75.89	7.59	A	14335	1/06/2004	31/05/2004	ALN	1B1R000800
5600002200	6	1438	759445			15/06/2004	N	1	63.22	0	0	0	1.38	8	0	0	72.6	7.26	A	13595	2/06/2004	1/06/2004	ALN	1B1R000800
5600002200	6	1438	759446			15/06/2004	N	1	63.69	0	0	0	1.38	8	0	0	73.07	7.31	A	13697	3/06/2004	2/06/2004	ALN	1B1R000800
5600002200	6	1438	759447			15/06/2004	N	1	63.25	0	0	0	1.38	8	0	0	72.63	7.26	A	13603	4/06/2004	3/06/2004	ALN	1B1R000800
5600002200	6	1438	759448			15/06/2004	N	1	62.77	0	0	0	1.38	8	0	0	72.15	7.22	A	13499	5/06/2004	4/06/2004	ALN	1B1R000800
5600002200	6	1438	759449			15/06/2004	N	1	63.23	0	0	0	1.38	8	0	0	72.61	7.26	A	13598	6/06/2004	5/06/2004	ALN	1B1R000800
5600002200	6	1438	759450			15/06/2004	N	1	60.46	0	0	0	1.38	8	0	0	69.84	6.98	A	13003	7/06/2004	6/06/2004	ALN	1B1R000800
5600002200	6	1438	759451			15/06/2004	N	1	63.5	0	0	0	1.38	8	0	0	72.88	7.29	A	13655	8/06/2004	7/06/2004	ALN	1B1R000800
5600002200	6	1438	759452			15/06/2004	N	1	61.38	0	0	0	1.38	8	0	0	70.76	7.08	A	13199	9/06/2004	8/06/2004	ALN	1B1R000800
5600002200	6	1438	759453			15/06/2004	N	1	63.71	0	0	0	1.38	8	0	0	73.09	7.31	A	13701	10/06/2004	9/06/2004	ALN	1B1R000800
5600002200	6	1438	759454			15/06/2004	N	1	63.19	0	0	0	1.38	8	0	0	72.57	7.26	A	13589	11/06/2004	10/06/2004	ALN	1B1R000800
5600002200	6	1438	759455			15/06/2004	N	1	62.75	0	0	0	1.38	8	0	0	72.13	7.21	A	13495	12/06/2004	11/06/2004	ALN	1B1R000800
5600002200	6	1438	759456			15/06/2004	N	1	62.83	0	0	0	1.38	8	0	0	72.21	7.22	A	13512	13/06/2004	12/06/2004	ALN	1B1R000800
5600002200	6	1438	759456			15/06/2004	N	1	62.5	0	0	0	1.38	8	0	0	71.88	7.19	A	13441	14/06/2004	13/06/2004	ALN	1B1R000800

The above is a typical example of what each MIRN will look like per 14 day billing period covering consumption on 01/06/2004 – 14/06/2004

Dates

The dates as shown in the above example reflect as follows:

The Current Read Date is = to the Gas Day being charged for

The Previous Read Date is = to the Calendar Day before the Gas Day being charged for

Therefore a Current Read Date of 10 June 2004 reflects the consumption for the gas day 10 June 2004.

Disputes for Interval Metered Sites

1. Disputes received for Non-Consumption reasons

- (a) If a Retailer disputes an invoice claiming that the MIRN does not belong to them, then the Retailer MUST dispute every line individually for that MIRN contained within the billing period.
- (b) If a Retailer wishes to dispute a charge contained within one line item within a billing period (say line 6 in the above diagram), the Retailer must be able to do so without having to dispute any other line items.

2. Disputes regarding Consumption

- (a) If a Retailer disagrees with the consumption, notification will not be via the Dispute process but via the MDV process. In which case, if a energy reading is revised for a particular day / line item, then we understand that all reads thereafter will need to be unaccumulated and re-accumulated to the end of the billing period. This will generate the required Cancel/Rebill lines.

Payments for Interval Metered Sites

The Retailer must submit a separate NetworkDUoSBillingNotification (Payment Advice) for each individual line item. Therefore in the above example, the Retailer would need to send in 14 NetworkDUoSBillingNotifications (Payment Advice) lines for the one MIRN's usage for the billing period.

CSVNetworkDUoSDataExcludedServices/CSVData		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Old_Transaction_ID	O	Required 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	Required 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	Where a number has been provided as an RB_Reference_Number, in the originating Service Order then it must be provided
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 for each line is returned with the CSVNetworkDUoSDataDisputeNotification, or CSVNetworkDUoSDataDisputeResolution transaction. The Dispute_Comments field can include “free text” comments.

To assist in the efficiency of the business process, the User should avoid disputing each unique transaction id more than once. However, nothing in this document limits the User’s rights to dispute a transaction id more than once, either pre or post payment (as defined in the contractual arrangements between Network Operators and Users)

If a transaction is in the midst of dispute action and is subsequently cancelled by the Network Operator, the existing dispute action ends, and no further action is required. If the transaction is subsequently rebilled by the Network Operator (having cancelled the original transaction), and the User is satisfied with the rebilled transaction, no further action is required.

However, if the User is not satisfied with the rebilled transaction, the User can raise a new Dispute Notification. This action is allowed because the Network Operator has created a new transaction when processing the rebilled transaction (ie. has a different Transaction_ID from the original transaction), and the User 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 Network Operator, no further action will be made until a Dispute Notification is cancelled or a Dispute Resolution transaction is provided by the Network Operator.

The MeterDataVerification process, rather than the billing dispute process, should be used to address issues with meter data. This would typically occur prior to receipt of invoices. However, this does not restrict the user’s rights to dispute the consumption amount or any other amount in the network operator’s invoice in the billing dispute process.

CSVNetworkDUoSDataDisputeResolution/CSVData		
Heading	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	
Transaction_ID	M	
Dispute_Reason_Code	M	Populate with Dispute Reason Code from DisputeNotification transaction
Dispute_Comment	O	Required if Dispute_Reason_Code is set to OTHR, may be used to identify resolution
Resolution_Date	M	
Agreed_Amount_GST_Excl	M	
Agreed_Amount_GST_Incl	M	
Agreed_GST_Amount	M	

In WA, the line items within the DisputeResolution transaction are displayed in 4 different formats in order to clearly indicate to the User the outcome of the Dispute.

- 1.1 If a dispute is received for a line item that is unpaid and the dispute is resolved in favour of the Network Operator, the DisputeResolution transaction will show the same amounts as those of the original invoiced amounts, indicating that the line item is to be paid.
- 1.2 If a dispute is received for a line item that is unpaid and the dispute is resolved in favour of the User, the DisputeResolution transaction will show zeros for all amounts, indicating that the line item is not to be paid (ie Cancel or Cancel/Rebill will follow in the next invoice).
- 1.3 If a dispute is received for a line item that has been previously paid and the dispute is resolved in favour of the Network Operator, the DisputeResolution transaction will show zeros for all amounts, because the line item has already been paid.
- 1.4 If a dispute is received for a line item that has been previously paid and the dispute is resolved in favour of the User, the DisputeResolution transaction will show the same amounts as those of the original invoiced and paid amounts but multiplied by –1 to show the amounts as negative amounts. This indicates to the User that a PaymentNotification will be required for both the Cancel (negative) and Rebill line items in the new invoice.

Dispute resolution codes are not used. The outcome of the dispute is provided in the DisputeResolution transaction through the 'Agreed amount' and through (optional) comments in the Dispute_Comment data element.

CSVNetworkDUoSDataPaymentAdvice/CSVData		
Heading	Mandatory /Optional	Comment
NMI	M	
NMI_Checksum	M	
Invoice_Number	M	The original invoice number of the line item
Transaction_ID	M	
GST_Inclusive_Amount_Paid	M	
GST_Amount	M	GST amount paid
GST_Exclusive_Amount_Paid	M	
Paid_Date	O	

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

Where the dispute resolution does not change the original amount, a Network Operator cancel/re-bill is not required, the User will release the payment in accordance with relevant haulage contracts.

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

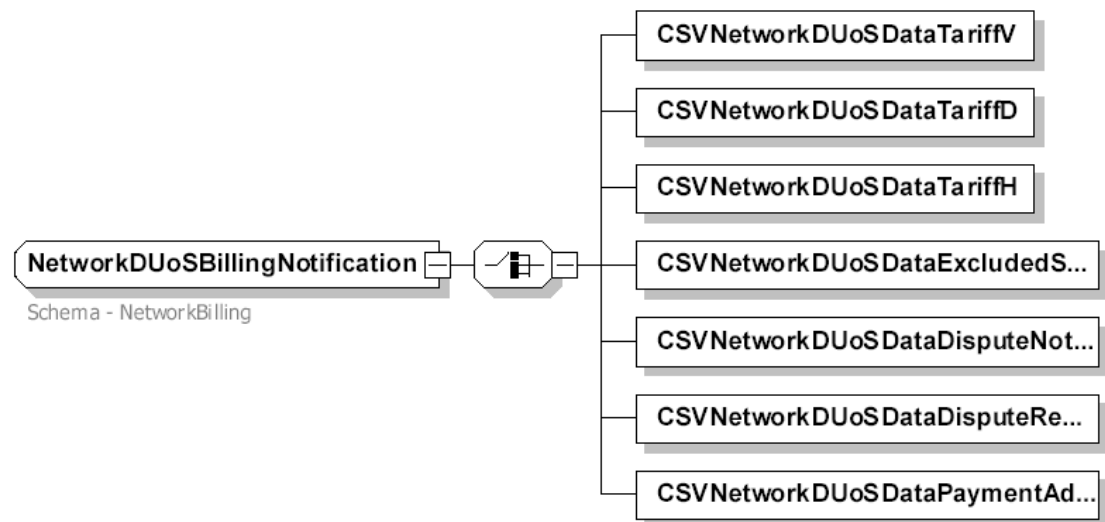


Figure 4-67 NetworkDUoSBillingNotification aseXML schema

XML Sample

```

<Header>
  <From description="FBSTEST">FBSTEST</From>

```

```

<To description="FBS">FBS</To>
<MessageID>FBSTEST-Msg-555624666277</MessageID>
<MessageDate>2012-04-02T13:58:01.524+10:00</MessageDate>
<TransactionGroup>NETB</TransactionGroup>
<Priority>Low</Priority>
<Market>SAGAS</Market>
</Header>
<Transactions>
  <Transaction transactionID="FBSTEST-Msg-555624666277" transactionDate="2012-04-
02T13:58:01.524+10:00">
    <NetworkDUoSBillingNotification version="r13">
      <CSVNetworkDUoSDataTariffD>
        <RecordCount>000000001</RecordCount>
        <CSVData>NMI,NMI_Checksum,Invoice_Number,Transaction_ID,Old_Transaction_ID,Old_Invoice_Number,Tra
nsaction_Date,Adjustment_Indicator,Period,Max_MHQTYP,Max_MHQTYP,Expected_MHQTYP,Consumption_GJ,Char
ge_TP,GST_Amount,Distributor_ID,Network_Tariff_Code
"5555157981",6,555477786661,"111555888777",,,,"2012-03-
28","N","201203",0,0,1350000,0.000,1574.00,157.40,"FBSTEST","Negotiated"
        </CSVData>
      </CSVNetworkDUoSDataTariffD>
    </NetworkDUoSBillingNotification>
  </Transaction>
</Transactions>

```

4.6. Customer Details Information (SA Only)

4.6.1. Overview

Changes to Customer Details information is initiated by the User and sent to the Network Operator to maintain the most up to date Customer Contact Information. The Network Operator 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 Network Operator 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 National Energy Retail Rules, changes to Customer Contact details are to be supplied to the Network Operator.

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

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

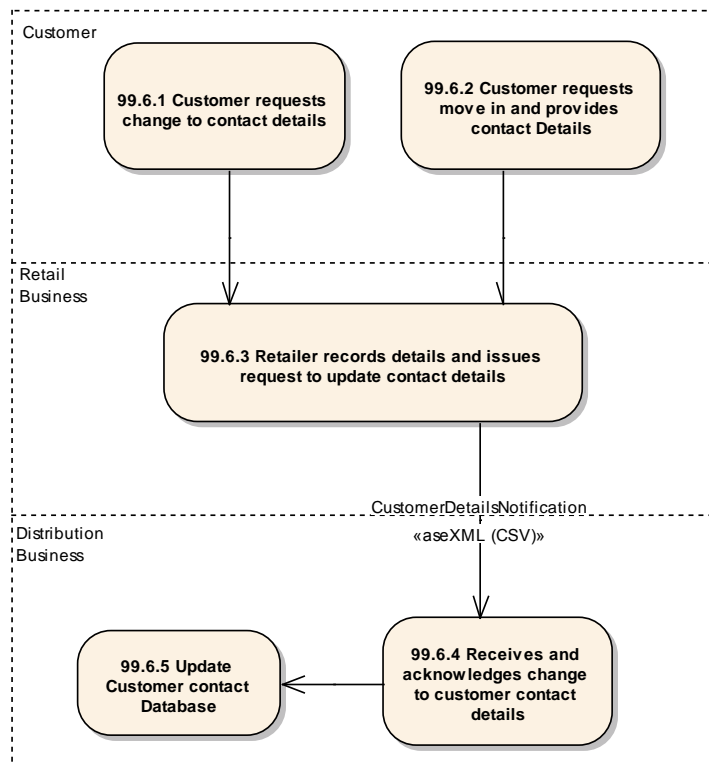


Figure 4-68 Amend Customer Details Activity Diagram

Process Sequence

In the course of managing Customer contact details a User 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 Network Operator to enable updating of the Network Operator 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:

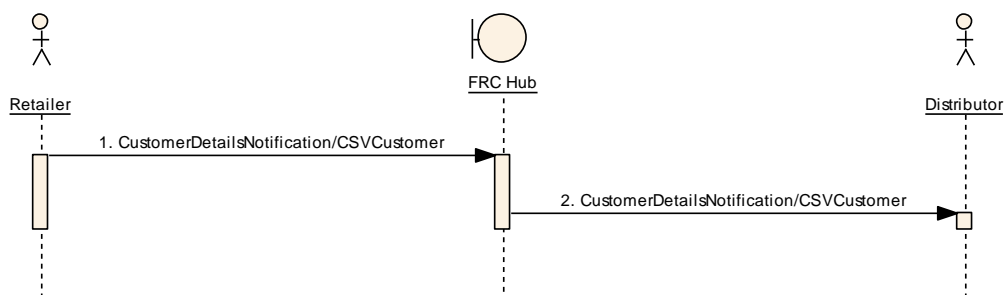


Figure 4-69 Customer Details Change Sequence Diagram

ID	ASEXML TRANSACTION	FROM OBJECT	TO OBJECT	PROCESS FLOW
1	CustomerDetailsNotification/ CSVCustomer	Retailer	FRC Hub	
2	CustomerDetailsNotification/ CSVCustomer	FRC Hub	Network Operator	

4.6.2.1 CustomerDetailsNotification/CSVCustomer

<i>TRANSACTION DEFINITION TABLE CROSS-REFERENCE</i>	THIS INTERFACE REALISES THE FOLLOWING TRANSACTIONS FROM THE TRANSACTION DEFINITION TABLE: <ul style="list-style-type: none"> 70 – AMEND CUSTOMER DETAILS
<i>Trigger</i>	This interface is triggered when a Retailer makes a change to a MIRN's Customer details
<i>Pre-conditions</i>	None
<i>Post-conditions</i>	Network Operator possesses updated customer details
<i>Transaction acknowledgment specific event codes</i>	3665, 3666, 3670, 3672, 3674, 3677

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

Transaction Data Elements

TRANSACTION:		CUSTOMERDETAILSNOTIFICATION/ CSVCUSTOMER
Received From:		User
Sent To:		Network Operator
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".
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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

CSVCUSTOMER/CSVDATA		
Heading	Mandatory/ Optional	Comment
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

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

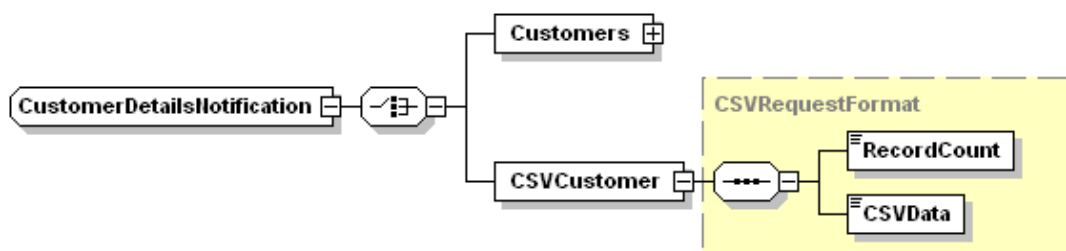


Figure 4-70 CustomerDetailsNotification/CSVCustomer aseXML schema

Sample Transaction

```

<Header>
  <From description="Energy Australia">ENGYASA</From>
  <To description="Envestra">ENVSA</To>
  <MessageID> CUSTDETSNOTIF-001</MessageID>
  <MessageDate>2011-09-27T00:09:17+10:00</MessageDate>
  <TransactionGroup>CUST</TransactionGroup>
  <Priority>Low</Priority>
  <Market>SAGAS</Market>
</Header>

```

```

<Transactions>
  <Transaction transactionID=" CUSTDETSNOTIF-001" transactionDate="2011-09-27T00:09:17+10:00">
    <CustomerDetailsNotification version="r12">
      <CSVCustomer>
        <RecordCount>1</RecordCount>
        <CSVData>
          NMI,NMI_Checksum,Person_Name_Title,Person_Name_Given,Person_Name_Family,Business_Name,ContactD
etail_PersonName,Mail_Address_Line_1,Mail_Address_Line_2,Mail_Address_Line_3,Suburb_Or_Place_Or_Local
ity,State_Or_Territory,Postcode,ContactDetail_PhoneNumber_1,ContactDetail_PhoneNumber_2,Sensitive_Load_
Flag,Movement_Type
          5510555678,61MISS,CUST,NOTIF,CATION, ,75 TEST
          AVENUE,,,ADELAIDE,SA,5000,04256811111,0438887703,N,UP
        </CSVData>
      </CSVCustomer>
    </CustomerDetailsNotification>
  </Transaction>
</Transactions>

```

Appendix A. Data Dictionary

aseXML Data Elements¹

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 User. 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" 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. The allowed values and formats for address elements are contained within the aseXML Schema (in 'Enumerations.xsd' and "ClientInformation.xsd").			
AdjustmentReasonCode	Adjustment Reason Code	A code that the Network Operator provides to the User which identifies the reason for the revised reading	String	Enum	"Under Read" "Over Read" "Under Estimate" "Over Estimate" "No Change"

¹ 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
AppointmentDetail/ Preferred/ Date	Appointment Date	Date Customer/User 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/User requires work to commence.	Time	14	hh:mm:ss+hh:mm (see 'time format' Section 4 – introduction).
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	7	
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 User passes to a Network Operator in relation to a Service Request. Passed in aseXML structured format			
ContactDetail/ PhoneNumber	Customer Contact Number	Contact telephone number pertaining to the requesting person. Passed in aseXML structured format			
CSVConsumptionData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.1.2.2 of this document
CSVCustomer/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section Error! Reference source not found. of this document
CSVHistoryResponseData/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.6.2.1 of this document
CSVMainsServiceRenewal/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.6.2.1 of this document
CSVNetworkDUoSDataExcludedServices/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2.1 of this document
CSVNetworkDUoSDataTariffD/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2.1 of this document

aseXML Element Name	Element Name	Description	Attributes /Format	Length/ Decimal Places	Allowed Values
CSVNetworkDUoSDataTariffH/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2.1 of this document
CSVNetworkDUoSDataTariffV/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2.1 of this document
CSVNetworkDUoSDataDisputeNotification/CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2.1 of this document
CSVNetworkDUoSDataDisputeResolution/CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2.1 of this document
CSVNetworkDUoSDataPaymentAdvice/CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.5.2.1 of this document
CSVAmendScheduledReadingDay/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.4.4.1 of this document
CSVAmendSiteAddressDetails/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.4.3.1 of this document
CSVTimeExpiredMeters/ CSVData	N/A	Contains embedded data in CSV format			CSV file containing the fields defined in section 4.2.4.1 of this document
Current/ IndexValue	Current Index Value	Most recent validated meter index stored on the database.	Integer	7	
Current/ MeterData/ Current/ 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
CustomerCharacterisation	Customer Characterisation	In relation to a customer, whether the customer is metropolitan or non-metropolitan and business or residential.	String	Enum	In SA: "Metropolitan Business" "Metropolitan Residential" "Non Metropolitan Business" "Non Metropolitan Residential" Not used in WA
CustomerClassificationCode	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
CustomerThresholdCode	Customer Threshold Code	In relation to a business customer, type of classification based on consumption thresholds, as per the NERL obligation	String	20	“LOW” = Business Customer with consumption from 0GJ up to 999GJ “HIGH” = Business Customer with consumption of 1000GJ or more.
DateOfAttemptedAccess	Date of Attempted Access	Date on which access was attempted and was not available	Date	10	ccyy-MM-dd
DateServiceOrderCompleted	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 (see ‘time format’ Section 4 – introduction.)
	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+hh:mm (see ‘time format’ Section 4 – introduction.)
	Time CSR process transaction	Time Customer Service Representative activated the request			

aseXML Element Name	Element Name	Description	Attributes /Format	Length/Decimal Places	Allowed Values
DistributionTariff	Distribution Tariff	Part of the request for standing data from the Network Operator	String	Enum	<p>In WA: 1A1R, 1A2R, 1B1R, 1B2R, 1B3R 1A1N, 1A2N, 1B1N, 1B2N, 1B3N 1D1R, 1D2R, 1D3R 1D1N, 1D2N, 1D3N 1K1R, 1K2R, 1K3R 1K1N, 1K2N, 1K3N 1V1R, 1V2R, 1V3R 1V1N, 1V2N, 1V3N</p> <p>In SA: 1Demand 2Demand 3Demand 4Demand 5Demand 6Demand 7Demand 8Demand 9Demand 0Demand Commercial Volume Negotiated NegotiatedVolume</p> <p>(Note: in Victoria, the only values are 'demand' or 'volume').</p> <p>In SA, 'Negotitated' is used for both Negotiated Service charges and Term Sheet charges.</p>
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. Refer Ref [5]			
ExcludedServicesCharges/ChargeItem/ Category	Excluded Services Category	Charge category of an excluded service	String	Enum	"Service" "Meter" "Logger" "O+M" "Mains" "Other"
ExcludedServicesCharges/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	
ExcludedServicesCharges/ChargeItem/ ExpiryDate	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
HeatingValueZone	Heating Value Zone	In relation to a supply point, the heating value zone	String	3	See <i>Retail Market RulesProcedures</i> Appendix 1 'Coding of gas zones and gate points'
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 User pass the Network Operator 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 User can detail what is to be investigated in relation to a Data Change	String	100	
JobCompletionCode1	Job Completion Code 1	Code that represent the work undertaken by the Network Operator.	String	Enum	For full usage details of Job Enquiry Codes and Job Completion Codes see Service Order Specifications in the Specification Pack.
JobCompletionCode2	Job Completion Code 2	Code that represent the work undertaken by the Network Operator.	String	Enum	For full usage details of Job Enquiry Codes and Job Completion Codes see Service Order Specifications in Specification Pack.
JobCompletionCode3	Job Completion Code 3	Code that represent the work undertaken by the Network Operator.	String	Enum	For full usage details of Job Enquiry Codes and Job Completion Codes see Service Order Specifications in the Specification Pack. Not used in WA

aseXML Element Name	Element Name	Description	Attributes /Format	Length/Decimal Places	Allowed Values
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	For full usage details of Job Enquiry Codes and Job Completion Codes see Service Order Specifications in the Specification Pack.
JurisdictionCode	N/A	Mandatory element for MSATS use. <u>Not used by Gas</u>	String	3	"VGI" "SGI" "WGI"
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 (see 'time format' Section 4 – introduction.)
LoadDate	Load Date	The date the data was loaded into the Meter Register	DateTime	25	ccyy-MM-ddThh:mm:ss+hh:mm (see 'time format' Section 4 – introduction.)
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 Network Operator 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 Network Operator determining the infrastructure (such as service fitting line/meter capacity) to be installed.	Integer	6	
Market	N/A	Indicates the energy market to which the aseXML message belongs.	String	10	SA – 'SAGAS' WA – 'WAGAS'
MelwayGridReference	Melway Grid Reference	Map reference that indicates where 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	

aseXML Element Name	Element Name	Description	Attributes /Format	Length/Decimal Places	Allowed Values
MeterPosition	Gas Meter Position	Position in relation to the location of the gas meter.	String	Enum	BA = Basement BG = Back Gate BH = Back of House BR = Bathroom BV = Back Verandah BW = Back Wall BY = Back Yard CE = Cellar CP = Cupboard DR = Dining Room FA = Factory FD = Front Door FF = Front Fence FH = Front House FL = Front Left Side FR = Front Right Side FS = Front Wall Shop FV = Front Verandah FW = Front Wall GA = Garage GR = Group of Meters KC = Kitchen Cupboard KI = Kitchen LS = Left Side OB = Over Back Door PA = Passage PO = Porch PY = Pantry RS = Right Side SH = Shed SK = Under Sink SP = Shop SR = Store Room TO = Toilet UB = Under Back House UC = Under Counter UF = Under Front House UL = Under Left Side UP = Upstairs UR = Under Right Side US = Under Stairs WH = Wash House
MeterReadFrequency	Meter Read Frequency	Frequency on which the meter is read	String	Enum	"Bi Monthly" "Monthly" "Quarterly"

aseXML Element Name	Element Name	Description	Attributes /Format	Length/ Decimal Places	Allowed Values
MeterSerialNumber	Gas Meter Number	Number located on the gas meter.	String	12	
MeterStatus	Meter Status	Field that confirms if a disconnection has taken place. Meter Disconnection by User notification to Network Operator.	String	Enum	"Turned on" "Turned off" "Plugged" "No meter" Not used in WA Market
MeterTypeSizeCode	Meter Type Size Code	Identifies type of meter	String	3	In WA: Digit 1 = Meter Type 'B' or 'I' Digit 2 = Index Type 'M' or 'I' Digit 3 = Number of Dials (1 to 7) In SA: Network Operator defined.
MIRNStatus	MIRN Status	<p>The definitions of MIRN Status are contained in the <i>Retail Market Rules Procedures</i>. These definitions (with some additional notes for clarification) are as follows:</p> <p>Commissioned" - Delivery Point has been commissioned by Network Operator and gas is able to flow (note - the meter is turned on, however the consumer's installation may not be commissioned or able to receive gas).</p> <p>"Decommissioned" - The Delivery point has been disconnected (i.e. gas is unable to flow). Examples (which vary by jurisdiction according to work practices) could be that the meter has been removed, turned off, plugged, locked or wadded.</p> <p>"Deregistered" - The Delivery Point has been permanently removed.</p> <p>"Registered" - Initial installation of upstand with no meter (This is only used in SA - this is not advised to the Market Operator AEMO).</p>	String	Enum	"Registered" - (This is only used in SA – and is not advised to the Market Operator AEMO) "Commissioned" "Decommissioned" "Deregistered"

aseXML Element Name	Element Name	Description	Attributes /Format	Length/ Decimal Places	Allowed Values
New/ MeterRead/ Current/ IndexValue	New Index Value	The New Meter Reading index that will be processed to calculate the Energy Flow.	Integer	7	
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 of the new meter	String	3	IN WA Digit 1 = Meter Type 'B' or 'I' Digit 2 = Index Type 'M' or 'I' Digit 3 = Number of Dials (1 to 7) IN SA Network Operator defined.
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 Network Operator 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
NMI	MIRN	Meter Installation Registration Number. Unique number allocated by the Network Operator that identifies the Supply Point.	String	10	
NMIWithChecksum	MIRN	Meter Installation Registration Number. Unique number allocated by the Network Operator that identifies the Supply Point.	String	10	

aseXML Element Name	Element Name	Description	Attributes /Format	Length/Decimal Places	Allowed Values
NotificationData/SpecialNotes/CommentLine	SORD Not Complete Comment	<p>Required if Service Order is attempted but not successfully completed, including when cancelled by the DB</p> <p>For the avoidance of doubt, not required for retailer initiated B2B cancellation transaction unless:..</p> <p>Retailer Cancel SO was rejected by the DB but later cancelled in the field</p> <p>SO cancellation was verbally communicated by the Retailer.</p> <p>Up to 3 comment lines can be provided (80 characters each)</p> <p>Note: Participants will refer to this field as SORDNotCompleteComment/CommentLine</p>	String	80	
PlumberLicenceNumber	Plumber Licence Number	Plumbers Licence Number which is required as part of a Meter Fix process	String	5	
PressureCorrectionFactor	Pressure Correction Factor	Pressure Correction Factor applied to calculate gas flow.	Numeric	6,4	
ProposedRead / IndexValue	Proposed Index Value	Meter Reading index proposed by a User in the MeterDataVerification process	Integer	7	
ProposedRead / ReadDate	Proposed Read Date	Date of proposed read	Date	10	ccyy-MM-dd
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"

aseXML Element Name	Element Name	Description	Attributes /Format	Length/Decimal Places	Allowed Values
RecordCount	N/A	Specifies the number of records contained in a populated CSV element	Integer	10	
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
RevisedRead/ IndexValue	Revised Index Value	In relation to a Data Change it is the revised index value the Network Operator sends to User	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	For User-generated Service Orders, the Service Order Number is a reference number generated by a User. For an implied service order, the Service Order Number will always equal the transfer request ID allocated by the Market Operator AEMO .
ServiceProviderReference	Work Request Number	Unique reference number which the Network Operator assigns to the work for tracking and auditing purposes.	String	15	
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
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) "Final Read for Disconnection on Non-Payment" (SRD) "Change of Retailer" (SRT) Note: Code equivalent in brackets
StartWorkNoticeNumber	Start Work Notice Number	In Mildura, the number which appears on a Start Work Notice issue by the Network Operator for a "B" Type Office of Gas Safety records. In WA, the authorisation number of the Gas Fitter responsible for the type B appliance specifications.	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"
TimeServiceOrderCompleted	Time Service Order Completed	The time in which the service request was completed	Time	14	hh:mm:ss+hh:mm (see 'time format' Section 4 – introduction.)
TransmissionZone	Transmission Zone	A code that defines a Transmission zone	Integer	2	See <i>Retail Market Rules-Procedures</i> Appendix 1 'Coding of gas zones and gate points'
TypeOfRead	Type of Read	Indicator identifying the type of reading that has taken place.	String	Enum	"Actual" "Deemed" "Estimated" "Substituted" "Customer Own Read" (Used only in SA in 'Disconnection Read transaction).

CSV Data Elements¹

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. In general, date/time and time elements in the body of **CSV** B2B transactions will be expressed with a Time Zone Designator (TZD). The time zone selected will be at the discretion of the sending party. The 'Planned Outage Time' is always in local time without a Time Zone Designator.

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Access_Details	Access Details		String	40	
Actual_Change_Date	Actual Transfer Date	Date on which the Customer Transfer is required	Date	10	ccyy-mm-dd
Actual_End_Date	Registration End Date	In relation to a transfer request which nominates a retrospective transfer date as the proposed transfer date.	Date	10	ccyy-mm-dd
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 Network Operator provides to the User which identifies the reason for the revised reading	String	2	"UR" = Under Read "OR" = Over Read "UE" = Under Estimated "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	

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Agreed_Amount_GST_Incl	Agreed Amount GST Inclusive	The agreed amount (inclusive 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_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 reading/billing.	Numeric	4,2	
Baseload	Base Load	Non weather sensitive Gas usage per day (MJ)	Numeric	9,1	
Begin_Date	Begin Date	Commencement date for an energy history request	Date	10	ccyy-MM-dd
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	
bl	Base Load	Non weather sensitive Gas usage per day (MJ)	Numeric	9,1	
Building_Or_Property_Name_1	Building Or Property Name (Address Elements)	Defines the building or property name as per Australian Standard AS4590	String	30	Note: Building_Or_Property_Name_2 is not used in WA.
Building_Or_Property_Name_2					
Business_Name	Business Name	Contains company or business name, required if Person_Name_Family is not populated	String	60	
Capacity	Capacity		String	4	In cubic meters
Capacity_Group	Capacity Group		String	2	"10" = up to and including 6cm "20" = 7cm to 49cm "30" = 50cm and above "40" = Prepaid meters "50" = Hot Water
Change_Id	Change Request ID	Unique identifier assigned to each transfer request by CATS	Integer	10	1-9999999999
Change_Reason_Code	Change Reason Code	Identifies the type of transfer request	String	4	0001 = Prospective transfer, in-situ 0002 = Prospective transfer, move in 0003 = Correction of Transfer

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Change_Status	Change Status Code	Describes the status of a transfer request within CATS	String	4	"REQ" = Requested
Charge_TP	Charge TP (DUoS This Period)	In relation to tariff "D" DUoS charges, the charge for the period	Numeric	11,2	
Completion_Code	Completion Code	Type of completion	String	1	"0" = Incomplete "1" = Complete "2" = Partial
Communication_Equipment_Present	Communication Equipment Present		Alpha	1	"Y" = Communications Equipement "N" = No
Consumed_Energy	Consumed Energy	Energy calculated (eg - Energy Flow)	Numeric	11,0	Megajoules
ContactDetail_PersonName	Contact Detail Person Name	Contains contact's mailing name or company name	String	60	
ContactDetail_PhoneNumber_1	Contact Detail Phone Number 1	Contains contact's primary phone number	String	15	
ContactDetail_PhoneNumber_2	Contact Detail Phone Number 2	Contains contact's secondary phone number	String	15	
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	
Consumption_HR1		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR2		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR3		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR4		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR5		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR6		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR7		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR8		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR9		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR10		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR11		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR12		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR13		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR14		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR15		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR16		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR17		Energy Consumption for the Hour	Numeric	10	In MJ

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Consumption_HR18		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR19		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR20		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR21		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR22		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR23		Energy Consumption for the Hour	Numeric	10	In MJ
Consumption_HR24		Energy Consumption for the Hour	Numeric	10	In MJ
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 For interval meters, Current_Read_Date is the date of the gas day to which the read applies
Customer_Identification	Customer Identification		Char	12	Any valid driver's license number
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" = Metro Residential "NB" = Non Metro Business "NR" = Non Metro Residential
Customer_Classification_Code	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
Customer_Threshold_Code	Customer Threshold Code	In relation to a business customer, type of classification is based on consumption thresholds, as per the NERL obligation.	String	20	"LOW" = Business Customer with consumption from 0GJ up to 999GJ "HIGH" = Business Customer with consumption of 1000GJ or more.
Date_Of_Birth	Date Of Birth		Date	10	ccyy-MM-dd
DateServiceOrderCompleted	Date Service Request Completed	Date on which the Service requested was completed.	Date	10	ccyy-mm-dd
Daily_Heating_Value	Daily Heating Value		Numeric	5,3	
Date_of_Future_Read_N	Date of Future Read N		Date	10	ccyy-MM-dd Note, suffix "N" must be replaced with the future date ordinal
Delivery_Point_Identifier	Site Address DPID	Defines the delivery point identifier as per Australian Standard AS4590	String	8	

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
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 is the amount of the original transaction. (NetworkDUoSBillingNotification)	Numeric	11,2	
Disputed_GST_Amount	Disputed GST Amount	The Disputed_GST_Amount is the amount of the original transaction. (NetworkDUoSBillingNotification)	Numeric	11,2	

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Dispute_Reason_Code	Dispute Reason Code	Applicable Dispute Reason Code	String	4	"NNMI" = MIRN not known to User (i.e. User does not supply customer). "BPDF" = Billing Period Different "FC1" = Fixed Charge item 1 different (WA only) "FC2" = Fixed Charge item 2 different (WA only) "FC3" = Fixed Charge item 3 different (WA only) "FC4" = Fixed Charge item 4 different (WA only) "VC1" = Variable Charge item 1 different (WA only) "VC2" = Variable Charge item 2 different (WA only) "VC3" = Variable Charge item 3 different (WA only) "VC4" = Variable Charge item 4 different (WA only) "LRTB" = User has lost customer to another User before the invoiced period. "LRTD" = User lost customer to another User during the invoiced period (therefore need to apportion network charge between old and new User). "NDFG" = Network tariff different – generic "NDFO" = Network tariff charge different – Off Peak "NFP" = Network tariff charge different – Peak "QDFG" = Consumption different – generic "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 "MDQ" = MDQ is different "MHQY" = Actual MHQ this year different "MHQT" = Actual MHQ this period different "MHQE" = Expected MHQ this year different "RDFG" = Rate is different "URSO" = Unknown User Service Order (User 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	

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Distributor_ID	Distributor Id	Code identifying a Network Operator	String	10	The GBO ID of the Network Operator. Note, only codes identifying Network Operators can be used for this element.
Distribution_Tariff	Distribution Tariff	Part of the request for standing data from the Network Operator	String	Enum	See allowed enumerations in aseXML element.
Duration_Of_Outage	Duration of Outage	Approximate number of hours for the planned outage	Time	8	hh:mm:ss
End_Date	End Date	End date for an energy history request	Date	10	ccyy-MM-dd
Energy_Calculation_Date_Stamp	Energy Calculation Date Stamp	The date in which the Network Operator calculated the energy	Date	10	ccyy-MM-dd
Energy_Calculation_Time_Stamp	Energy Calculation Time Stamp	The time in which the Network Operator calculated the energy	Time	8	hh:mm:ss
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 "14" = Key Required "15" = Access Overgrown "16" = Hi/Low Failure "17" = Meter Capacity Failure

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Estimation_Substitution_Type	Estimation/Substitution Type	Indicator identifying the type of estimation/substitution applied.	String	2	<p>"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</p> <p>In SA: - "E1/S1" = Type 1 estimation/substitution method in the ESCOSA Metering Code (a calculation based on Same Time Last Year) - "E2/S2" value for Estimation_Substitution_Type means Type 3 estimation/substitution method in the ESCOSA Metering Code (a calculation based on customer class) - "E3/S3" value for Estimation_Substitution_Type means Type 4 estimation/substitution method in the ESCOSA Metering Code (a substitution method only and is a value agreed by RB and DB).</p>
Expected_MHQ	Expected MHQ	Victoria - In relation to tariff "D" DUoS charges, the highest Maximum Hour Quantity expected in the calendar year. In SA, this data element will contain the Contracted MDQ	Numeric	12,0 (SA is different from Vic (Vic - 9,4))	Megajoules
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	Logical Length/Decimal Length	Allowed Values
Excluded_Services_Charges_Charge_Item_Category	Excluded Services Charges Charge Item Category	Charge category of an excluded services	String	7	"Service" "Meter" "Logger" "O+M" "Mains" "Other"
Excluded_Services_Charges_Charge_Item_Amount	Excluded Services Charges Charge Item Amount	Excluded Services Charges that may apply in relation to a supply point and is part of the standing data request.	Numeric	9,2	
Excluded_Services_Charges_Charge_Item_Expiry_Date	Excluded Services Charges Charge Item Expiry Date	Date in which the Excluded Services Charges expires and is part of the standing data request	Date	10	ccyy-MM-dd
Excluded_Services_Code	Excluded Services Code	Based on each Network Operator's codes, used to indicate type of service.	String	10	
Fixed_Charge	Fixed Charge	In relation to tariff "V" DUoS charges, the daily fixed charge multiplied by the number of days in the billing period.	Numeric	11,2	
Fixed_Charge_1	Fixed Charge 1	In relation to tariff "H" Duos charges, the fixed charge used for <i>Standing Charges</i> . Exclusive of GST	Numeric	11,2	
Fixed_Charge_2	Fixed Charge 2	In relation to tariff "H" Duos charges, the fixed charge used for <i>User Specific Charges</i> . Exclusive of GST	Numeric	11,2	
Fixed_Charge_3	Fixed Charge 3	In relation to tariff "H" Duos charges, the fixed charge used for <i>Demand Charges</i> . Exclusive of GST	Numeric	11,2	
Fixed_Charge_4	Fixed Charge 4	In relation to tariff "H" Duos charges, the fixed charge used for <i>Other</i> fixed charges. Exclusive of GST	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	"APT", "CTGE", "DUP", "FY", "F", "HSE", "KSK", "MSNT", "MB", "OFF", "PTHS", "RM", "SHED", "SHOP", "SITE", "SL", "STU", "SE", "TNHS", "U", "VLLA", "WARD", "WE"
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	Logical Length/Decimal Length	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	"B", "FL", "G", "L", "LG", "M", "UG"
frb	Failed Retail Business	This is the failed retailer in a RoLR event	Varchar	10	
From_Date	From Date		Date	10	ccyy-MM-dd
Full_History_Required	Full History Required	In Energy History Request shows if the full history is required	String	1	"Y" = Yes "N" = No
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_Exclusive_Amount_Paid	GST_Exclusive_Amount_Paid	Amount paid (exclusive of GST)	Numeric	11,2	
GST_Inclusive_Amount_Paid	GST Inclusive Amount Paid	Amount paid (inclusive of GST)	Numeric	11,2	
GST_Amount	GST Amount	GST applicable to calculated excluded service charge or GST amount applicable to transaction	Numeric	11,2	
Heating_Value_Zone	Heating Value Zone		String	3	
High_Meter_Range			String	12	
Hi_Low_Failure	Hi/Low Failure	A code that indicates whether the meter reader has input a meter reading that was outside the predetermined tolerance range	String	1	"Y" = Yes "N" = No
House_Number_1	House Number (Address Elements)	Defines the house number as per Australian Standard AS4590	String	5	Note: House_Number_2 is not used in WA.
House_Number_2					
House_Number_Suffix_1	House Number Suffix (Address Elements)	Defines the house number suffix as per Australian Standard AS4590	String	1	Note: House_Number_Suffix_2 is not used in WA.
House_Number_Suffix_2					
Invoice_Number	Invoice Number	Invoice number the line relates to.	String	20	
Job_Enquiry_Code	Job Enquiry Code		Alpha	4	
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 User has recorded energy on this supply point	Date	10	ccyy-MM-dd
Line_Description	Line Description	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

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
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	
Low_Meter_Range			String	12	
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	
Mail_Address_Line_3	Mail Address Line 3	Contains formatted postal address details	String	80	
Max_MHQTTP	Max MHQTTP (This Period)	In relation to tariff "D" DUoS charges, the highest actual Maximum Hour Quantity recorded in this period (month).	Numeric	12,0(SA/ WA is different from Vic (Vic - 9,4)	Megajoules/hr
Max_MHPTY	Max MHPTY (This Year)	In relation to tariff "D" DUoS charges, the highest actual Maximum Hour Quantity recorded for the year to date.	Numeric	12,0(SA/ WA is different from Vic (Vic - 9,4)	Megajoules/hr
Melway_Grid_Reference	Melway Grid Reference		String	9	
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	Meter Capacity Failure	A code that indicates whether the reading was outside the predetermined tolerance range	String	1	"Y" = Yes "N" = No
Meter_Description			String	14	
Meter_Serial_Number	Meter Serial Number		String	20	
Meter_Position	Meter Position		String	40	

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Meter_Read_Frequency	Meter Read Frequency	In the Annual Meter Reading Schedule indicates how frequently the meter is read	String	1	"B" = Bi-Monthly "M" = Monthly "Q" = Quarterly
Meter_Status	Meter Status	Field that confirms if a disconnection has taken place. Meter Disconnection by User notification to Network Operator.	String	10	"Turned on" "Turned off" "Plugged" = Meter is disconnected "No meter" If this Meter_Status is mandatory in a transaction, then it will always be "Turned On" in WA as metere status has no meaning in WA.
Meter_Type_Size_Code	Meter_Type_Size_Code	Identifies type of meter	String	3	In WA: Digit 1 = Meter Type 'B' or 'I' Digit 2 = Index Type 'M' or "I" Digit 3 = Number of Dials (1 to 7) In SA: Network Operator defined.
Metric_Imperial_Indicator			String	1	"I" = Imperial "M" = Metric
MIRN_Status	MIRN Status		Alpha	20	"Register" = upstand + no meter "Commissioned" = upstand + meter connected "Decommissioned" = upstand + meter disconnected/turned off "Deregistered" = all removed
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
Network_Id	Sub Network ID	Sub-network Id – Unique identification of a sub-network	Char	4	As defined in Appendix A.5 of the ICD.

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
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. In SA, mostly the same as Distribution_Tariff (aseXML element) – see allowed values. In WA, the 4 digit distribution tariff defined in the RMR with a 6 digit extension making the haulage charges specific for the MIRN	String	10	In SA: 1Demand 2Demand 3Demand 4Demand 5Demand 6Demand 7Demand 8Demand 9Demand 0Demand Commercial Volume Negotiated NegVolume (note this is equivalent to 'NegotiatedVolume' in the Distribution_Tariff aseXML element) In SA, 'Negotiated' is used for both Negotiated Service charges and Term Sheet charges.
New_Fro	Party	Contains the initiator of the CATS change request, only when sent to the New User and the Network Operator	String	10	As defined in the GBO ID Table, as published on the AEMO website.
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
Next_Scheduled_Special_Read_Date	Next Scheduled Read Date		Date	10	ccyy-MM-dd
NMI	MIRN	Meter Installation Registration Number. Unique number allocated by the Network Operator that identifies the Supply Point.	String	10	
NMI_Checksum	MIRN Checksum	Is a number calculated by an algorithm for validation purposes	Integer	1	
Number_of_Meter_Dials			String	2	
Old_Transaction_ID	Old Transaction ID	A reference to a previous transaction where the current transaction reverses an old transaction.	String	17	

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
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
Party	Party	A code that identifies who the current Retailer is in relation to the Distributors Meter Register	String	10	As defined in the GBO ID Table, as published on the AEMO website.
Peak_Rate	Peak Rate	The peak flow rate during the day (WA only)	Numeric	10	in MJ/h
Pensioner_Or_Healthcare_CardNumber	Pension Or Healthcare CardNumber		String	10	Numeric and one alpha unique identifier as issued by the Dept. of Social Security or Veterans' Affairs
Period	Period	Victoria - In relation to DUoS network charges, the month in which this charge has been raised SA/WA This is the period (month) to which the charges relate (the consumption period). If the consumption period covers more than one month, then the last month of that consumption period is entered.	String	6	ccyyMM
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	
Person_Name_Family	Person Name Family	Contains customer's surname, require if Business_Name is not populate	String	40	
Planned_Outage_Commencement_Date	Planned Outage Commencement Date	In relation to an outage the date on which the outage is to occur.	Date	10	ccyy-MM-dd
Planned_Outage_Commencement_Time	Planned Outage Commencement Time	In relation to an outage the time on which the outage is scheduled to begin.	String	40	This can read time or time range e.g. business hours
Planned_Outage_Completion_Date	Planned Outage Completion Date	In relation to a planned outage the date on which the outage is to occur.	Date	10	ccyy-MM-dd
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	Logical Length/Decimal Length	Allowed Values
Previous_Read_Date	Previous Read Date	The date on which the Previous Index Value was read.	Date	10	ccyy-MM-dd For interval meters, Previous_Read_Date is the date of the gas day prior to the day to which the read applies.
Proposed_Meter_Change_End_Date	Proposed Meter Change End Date	The end date the Network Operator may perform the Meter Change as part of the Time Expired Meter Change program.	Date		ccyy-MM-dd
Proposed_Meter_Change_Start_Date	Proposed Meter Change Start Date	The start date the Network Operator may perform the Meter Change as part of the Time Expired Meter Change program.	Date		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	11,2	
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, "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) For details of usage of Reason_for_Read, see Job Enquiry Code matrix in the Information Pack.

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Rebate_Code	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.
Resolution_Date	Date of Resolution	Date of dispute resolution	Date	10	ccyy-MM-dd
Role	Role	Role of a participant in the aseXML	String	4	Note: used for T1060, "USER" is the only acceptable value.
Role_Name_Accelerated_Transfers	Role_Name_Accelerated_Transfers list	Role of a participant in the CATS transfer request process	String	6	USER C – Current User , USER N – New User,
RoLR	RoLR		Char	12	Default RoLR
RoLR_Date	RoLR Date		Date	10	e.g. yyyy-mm-dd : Date Designated RoLR became FRO
Scheduled_Reading_Day_Number	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	
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
Service_Date	Service Date	The date the Excluded Service Charge occurred	Date	10	ccyy-MM-dd
Site_Address_City	Site Address City	This relates to the site of the MIRN	Char	29	Free text
Site_Address_Postcode	Site Address Postcode	This relates to the site of the MIRN	String	4	
Site_Address_State	Site Address State	This relates to the site of the MIRN	Char	3	State abbreviation eg. SA, VIC, NSW, etc.
Special_Job_Instructions	Special Job Instructions		String	160	
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	Note: Street_Name_2 is not used in WA.
Street_Name_2					
Street_Suffix_1	Street Suffix (Address Elements)	Defines the street suffix as per Australian Standard AS4590	String	2	"CN", "E", "EX", "LR", "N", "NE", "NW", "S", "SE", "SW", "UP", "W" Note: Street_Suffix_2 is not used in WA.
Street_Suffix_2					
Street_Type_1	Street Type (Address Elements)	Defines the street type as per Australian Standard AS4590	String	4	See Address elements. Note: Street_Type_2 is not used in WA.
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	

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Supply_Point_Code	Supply Point Code		Alpha	1	B = Basic I = Interval T = Transmission
Temperature_Sensitivity_Factor	Temperature Sensitivity Factor	This contains the temperature sensitivity heating rate for the delivery point.	Numeric	9,2	
To_Date	To Date		Date	10	ccyy-MM-dd
Total	Total	In relation to tariff "V" DUoS charges the sum of the variable peak, variable off peak, and fixed charges for this period.	Numeric	11,2	
Total_Daily_Consumption	Total Daily Consumption	The total consumption for the day	Numeric	10	In MJ
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	
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
Transmission_Zone	Transmission Zone		Numeric	2,0	
tsf	Temperature Sensitivity Factor	This contains the temperature sensitivity heating rate for the delivery point.	Numeric	9,2	
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 (not used in WA) "D" = Deemed
Variable_Off_Peak	Variable Off Peak	In relation to tariff "V" DUoS charges, the variable off peak charge in the billing period.	Numeric	11,2	
Variable_Charge_1	M	In relation to tariff "H" Duos charges, the fixed charge used for Usage related variable charges for all steps. Exclusive of GST.	Numeric	11,2	

CSV Element Name	Element Name	Description	Attributes /Format	Logical Length/Decimal Length	Allowed Values
Variable_Charge_2	M	In relation to tariff "H" Duos charges, the fixed charge used for <i>Peak</i> usage related variable charges. Exclusive of GST.	Numeric	11,2	
Variable_Charge_3	M	In relation to tariff "H" Duos charges, the fixed charge used for <i>Overrun</i> related variable charges. Exclusive of GST.	Numeric	11,2	
Variable_Charge_4	M	In relation to tariff "H" Duos charges, the fixed charge used for all <i>Other</i> variable charges. Exclusive of GST.	Numeric	11,2	
Variable_Peak	Variable Peak	In relation to tariff "V" DUoS charges, the variable peak charge in the billing period.	Numeric	11,2	
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 Network Operator assigns to the work for tracking and auditing purposes.	String	15	

Appendix B. aseXML Standard Event Codes

Error reporting is an important function of message and transaction acknowledgements. Errors will also need to be reported in response transactions. In order for errors to be reported consistently, aseXML defines a standard <Event> element for this purpose. Zero, one or more <Event> elements are supported within a <MessageAcknowledgement> or a <TransactionAcknowledgement> element. Details of error reporting and the <Event> element are contained in Guidelines for Development of A Standard for Energy Transactions in XML (aseXML) (Version 2.1). Usage of these event codes in the SA and WA markets is described in the B2M & B2B System Specifications document.

The following standard aseXML event codes shall apply to Gas FRC communications. These have been taken directly from the aseXML Guidelines (Version 2.1). Any application specific Event Codes defined specifically for GAS FRC are defined in Appendix C and specified in the detailed interface definitions section of this document.

Class	Code	Description	Notes
	0	Success, OK, Accepted, etc.	Any class
Message (1-99)	1	Not well formed	
	2	Schema validation failure	
	3	Transaction not supported within Transaction Group	The transaction is not supported by the receiving system in the context of the provided transaction group
	4	Transaction version not supported	
	5	Uncompression failure	This covers both errors in the uncompress ion process and the absence of the appropriate file within the compressed format container
	6	Message too big	
	7	Header mismatch	Information provided by transport layer is inconsistent with the message header
	8	Incorrect market	The system to which the message is addressed does not handle the market indicated in the header
	9	Unknown Transaction Group	The transaction group is not supported by the receiving system
	10	Duplicate Transaction	

Class	Code	Description	Notes
Processing (100-199)	100	Application unavailable	
	101	Database data error	Typically the result of code error, such as insufficient checking of data validity prior to insertion into the database.
	102	Database system error	e.g. major database problem
Application (200-999)	200	Record(s) not found	
	201	Data missing	
	202	Data invalid	
	203	Unknown report	Requested report not supported by receiving system
	204	Missing or invalid report parameters	
	205	Unknown Table	Requested table is not replicated by the receiving system
	206	Unknown initiating ID	We didn't send this transaction – no record of initiating transaction ID. Therefore the response transaction does not belong to us.
	999	Unexpected Error	Any Class. Must be accompanied by an <Explanation> element. Only to be used where an error can't reasonably be mapped to an existing error code optionally carrying an <Explanation> element to further explain the specific nature of the error.

Appendix C. Gas FRC Application Event Codes

The following Gas FRC B2B specific aseXML event codes shall apply to Gas FRC communications. The 'Code' sub-element within the 'Event' element is a numeric code corresponding to the particular event condition. The code used should be one of those defined in the following list and the field should not be 'padded' with zeros.

Group	Code	Description	Severity	Invoking Transaction
B2B (3600–3799)	3601	Action Type invalid	Error	ServiceOrderRequest SpecialReadRequest
	3602	Recipient did not initiate Request	Error	ServiceOrderResponse (Note: Not applicable for DB initiated Service Orders) SpecialReadResponse MeterDataHistoryResponse, NMISstandingDataResponse, 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
	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

Group	Code	Description	Severity	Invoking Transaction
	3627	Invalid Pressure Correction Factor	Warning	ServiceOrderResponse, MeterDataNotification, MeterDataHistoryResponse
	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
	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	NMISstandingDataRequest, NMIDiscoveryRequest
	3639	Multiple matches found	Information	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, MeterDataHistoryResponse
	3649	Incorrect Previous Index Value	Warning	MeterDataNotification, MeterDataHistoryResponse
	3650	Incorrect Average Heating Value	Warning	MeterDataNotification, MeterDataHistoryResponse
	3651	Incorrect Consumption Calculation	Warning	MeterDataNotification, MeterDataHistoryResponse
	3652	Estimate on Special Read (not applicable to final reads)	Error	MeterDataNotification, MeterDataHistoryResponse
	3653	Incorrect NSRD	Warning	MeterDataNotification, MeterDataHistoryResponse
	3654	Incorrect Gas_Meter_Number	Warning	MeterDataNotification, MeterDataHistoryResponse
	3655	No Actual Read for 12 months	Warning	MeterDataNotification, MeterDataHistoryResponse
	3657	Duplicate Read	Error	MeterDataNotification, MeterDataHistoryResponse
	3658	RB Reference Number Missing for Special Read	Warning	MeterDataNotification
	3659	Unrecognised Event Code	Warning	all

Group	Code	Description	Severity	Invoking Transaction
	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(CSVAmend SiteAddressDetails)
	3668	Invalid Customer Characterisation	Error	AmendMeterRouteDetails(CSVAmend SiteAddressDetails)
	3669	Invalid Scheduled_Reading_Day_Number	Warning	AccountCreationNotification
	3670	Missing mandatory CSV field	Error	All transactions containing CSV files
	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	Information	NMIDiscoveryResponse

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 is based on the GTPWG Table of Transactions produced for the Victorian Gas FRC Market. The original numbers of these transactions have been retained and are shown in the first Column. This table shows the aseXML transactions which are used for each of these information flows. Where appropriate, cross references to Process Flow diagrams and the *Retail Market Rules Procedures* are also provided.

Gas Information Protocol (GIP) Transaction No	Transaction Type	Comms Type	ase XML Transaction	Process Flow Reference	Rules Ref.	Section Reference	Transaction Transport Method
3	Special Read Request	B2B	SpecialReadRequest	MR4A	R147	4.1.5.1	aseXML
3A	Special Read Request Response	B2B	SpecialReadResponse	MR4A	R99 R147	4.1.5.1	aseXML
6	Special Read Request No Access advice	B2B	SpecialReadResponse	MR4A	R99 R147	4.1.5.1	aseXML
9	Energy Flow for Special Read (note: - Not a Customer Transfer Request)	B2B	MeterDataNotification	MR4A	R147	4.1.2.1	aseXML for Basic Electronic File for interval
9A	Energy Flow for Special Read (note: - Not a Customer Transfer Request) Response	B2B	MeterDataResponse	MR4A		4.1.2.2	aseXML
12	Account creation transaction.	B2B	AccountCreationNotification	MR5	R103	4.1.7.1	aseXML
13	Energy Flow for Special Read for a Customer Transfer	B2B	MeterDataNotification	MR13		4.1.2.1	aseXML for Basic Electronic File for interval
13A	Energy Flow for Special Read for a Customer Transfer Response	B2B	MeterDataResponse	MR13		4.1.2.2	aseXML
15	Disconnection Read	B2B	MeterReadInputNotification	MR9B	R111	0	aseXML

Gas Information Protocol (GIP) Transaction No	Transaction Type	Comms Type	ase XML Transaction	Process Flow Reference	Rules Ref.	Section Reference	Transaction Transport Method
17	Energy Flow for Disconnection Read	B2B	MeterDataNotification	MR9B	R107	4.1.2.1	aseXML for Basic Electronic File for interval
17A	Energy Flow for Disconnection Read Response	B2B	MeterDataResponse	MR13		4.1.2.2	aseXML
41	Energy Flow for Schedule or Special Read	B2B	MeterDataNotification	MR13		4.1.2.1	aseXML for Basic Electronic File for interval
41A	Energy Flow for Schedule or Special Read Response	B2B	MeterDataResponse	MR13		4.1.2.2	aseXML
45	Energy History Request	B2B	N/A	MR3	R167	Appendix E	Manual process/ Electronic File
46	Energy History Response	B2B	N/A	MR3	R167	Appendix E	Electronic File
49	User requesting missing meter reading data	B2B	MeterDataMissingNotification	REQ2		4.1.3.1	aseXML
50	Energy Flow for Missing Reads	B2B	MeterDataNotification	REQ2		4.1.2.2	aseXML for Basic Electronic File for interval
50A	Energy Flow for Missing Reads Response	B2B	MeterDataResponse	REQ2		4.1.2.2	aseXML
51	Energy Flow for an Estimate Read	B2B	MeterDataNotification	MR13		4.1.2.2	aseXML for Basic Electronic File for interval
51A	Energy Flow for an Estimate Read Response	B2B	MeterDataResponse	MR13		4.1.2.2	aseXML

Gas Information Protocol (GIP) Transaction No	Transaction Type	Comms Type	ase XML Transaction	Process Flow Reference	Rules Ref.	Section Reference	Transaction Transport Method
53	Energy Flow for a Substituted Read	B2B	MeterDataNotification	MR13	R157	4.1.2.1	aseXML for Basic Electronic File for interval
53A	Energy Flow for a Substituted Read Response	B2B	MeterDataResponse	MR13		4.1.2.2	aseXML
66	Meter Site Access Information Change from RB	B2B	AmendMeterRouteDetails	MR7	R61	4.4.2.1	aseXML
67	Meter Site Access Information Change from DB	B2B	AmendMeterRouteDetails	DB1	R62	4.4.2.1	aseXML
68	Supply Point Information	B2B	AmendMeterRouteDetails	MR7		4.4.3.1	aseXML
69	Address Information Change from DB	B2B	AmendMeterRouteDetails	DB1	R62	4.4.3.1	aseXML
70	Amend Customer Details	B2B	CustomerDetailsNotification			4.6	aseXML (SA Only)
71	Amend Customer Details	B2B	N/A			Appendix E	Electronic File
74	Annual Meter Reading Schedule	B2B	N/A	MR6	R144	Appendix E	Electronic File
75	Meter Reading Route Change	B2B	N/A	MR2	R145	Appendix E	Electronic File
87	Meter Fix request "A" or "B" type.	B2B	ServiceOrderRequest	MIRN2/3		4.2.3.4	aseXML
87A	Meter Fix request "A" or "B" type Response	B2B	ServiceOrderResponse	MIRN2/3		4.2.3.5	aseXML
92	Meter Fix completed	B2B	ServiceOrderResponse	MIRN2/3	R 65	4.2.3.5	aseXML
93	No Access to complete Meter Fix	B2B	ServiceOrderResponse	MIRN2/3		4.2.3.5	aseXML
101	Meter Change Request	B2B	ServiceOrderRequest	REQ5A		4.2.3.4	aseXML
101A	Meter Change Request Response	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
104	No Access to complete Meter Change	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
108	Meter Change Completed	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
120	Request Basic Meter Upgrade	B2B	N/A	MR12		N/A	Notice

Gas Information Protocol (GIP) Transaction No	Transaction Type	Comms Type	ase XML Transaction	Process Flow Reference	Rules Ref.	Section Reference	Transaction Transport Method
121	Quote for Upgrade of Basic Meter	B2B	N/A	MR12	R140	N/A	Notice
122	Accept quote for Basic Meter Upgrade	B2B	N/A	MR12	R140	N/A	Notice
125	Meter Upgrade Completed RB Advice	B2B	N/A	MR12	R141	4.2.3.5	Notice
136	Time Expired Meters Notification	B2B	N/A			Appendix E	Electronic File
151	Meter Removal Request	B2B	ServiceOrderRequest	MR11	R125	4.2.3.4	aseXML
151A	Meter Removal Request Response	B2B	ServiceOrderResponse	MR11	R126 R127	4.2.3.5	aseXML
154	No Access to complete Meter Removal	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
157	Meter Removal Completed	B2B	ServiceOrderResponse	MR11	R127 R128 R140 WA Only	4.2.3.5	aseXML
231	Account creation transaction.	B2B	AccountCreationNotification	MR5	R103	4.1.7.1	aseXML
242	Meter Data Verification	B2B	MeterDataVerifyRequest	REQ1		4.1.6.1	aseXML
243	Meter Data Verification	B2B	MeterDataVerifyResponse	REQ1		4.1.6.2	aseXML
246	Energy Flow Adjustment for RB	B2B	MeterDataNotification	REQ1		4.1.2.1	aseXML for Basic Electronic File for interval
246A	Energy Flow Adjustment for RB Response	B2B	MeterDataResponse	REQ1		4.1.2.2	aseXML
280	Discovery request	B2B	NMIDiscoveryRequest	MIRN4B	R74 R75	4.3.2.2	aseXML
			NMISstandingDataRequest	MIRN4A		4.3.2.5	aseXML
281	MIRN Standing Data	B2B	NMIDiscoveryResponse	MIRN4B	R75	4.3.2.3	aseXML

Gas Information Protocol (GIP) Transaction No	Transaction Type	Comms Type	ase XML Transaction	Process Flow Reference	Rules Ref.	Section Reference	Transaction Transport Method
			NMISstandingDataResponse	MIRN4A		4.3.2.6	aseXML
284	MIRN Additional Data	B2B	NMIDiscoveryResponse	MIRN4B		4.2.3.5	aseXML
			NMISstandingDataResponse	MIRN4A		4.3.2.6	aseXML
285	MIRN Discovery Assistance	B2B	N/A	N/A	R76	N/A	Notice
289	Standing Data Change from DB	B2B	N/A	N/A	R62	Appendix E	Electronic File
298	Refresh of New Street Listing for MIRN Discovery	B2B	N/A	N/A		Appendix E	Electronic File
310	Service Connection requests	B2B	ServiceOrderRequest	MIRN1		4.2.3.4	aseXML
310A	Service Connection requests Response	B2B	ServiceOrderResponse	MIRN1	R 65	4.2.3.5	aseXML
311	Service Connection Complete	B2B	ServiceOrderResponse	MIRN1	R 65 R161	4.2.3.4	aseXML
312	Service Disconnection Request	B2B	ServiceOrderRequest	MR9A	R105 R108	4.2.3.5	aseXML
312A	Service Disconnection Request Response	B2B	ServiceOrderResponse	MR9A	R106 R107 R109 R110	4.2.3.5	aseXML
313	Service Disconnection Complete	B2B	ServiceOrderResponse	MR9A	R107	4.2.3.5	aseXML
314	Service Orders for Priority C-K	B2B	ServiceOrderRequest	MR10	R117	4.2.3.4	aseXML
314A	Service Orders for Priority C-K Response	B2B	ServiceOrderResponse	MR10	R118 R119	4.2.3.5	aseXML
315	Service Orders Completed for Priority A-K	B2B	ServiceOrderResponse	MR10	R119	4.2.3.5	aseXML
316	Relocate Service Connection request	B2B	ServiceOrderRequest	REQ5A		4.2.3.4	aseXML

Gas Information Protocol (GIP) Transaction No	Transaction Type	Comms Type	ase XML Transaction	Process Flow Reference	Rules Ref.	Section Reference	Transaction Transport Method
316A	Relocate Service Connection request Response	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
317	Relocate Service Complete	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
318	Upgrade Service Size request	B2B	ServiceOrderRequest	REQ5A		4.2.3.4	aseXML
318A	Upgrade Service Size request Response	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
319	Upgrade Service Size Complete	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
320	Upgrade Meter Size request	B2B	ServiceOrderRequest	REQ5A		4.2.3.4	aseXML
320A	Upgrade Meter Size request Response	B2B	ServiceOrderResponse	REQ5A		4.2.3.5	aseXML
321	Upgrade Meter Size Complete	B2B	ServiceOrderResponse	REQ5A	R140 WA R141	4.2.3.5	aseXML
330	Notification of planned outage	B2B	N/A	REQ5		Appendix E	Electronic File
331	Network DUoS billing details (Tariff V)	B2B	NetworkDUoSBillingNotification			4.5.2.1	aseXML
331	Network DUoS billing details (Tariff H) WA Only	B2B	NetworkDUoSBillingNotification			4.5.2.1	aseXML
332	Network DUoS billing details (Tariff D)	B2B	NetworkDUoSBillingNotification			4.5.2.1	aseXML
333	Meter Range Updates	B2B	N/A			Appendix E	Electronic File
350	Network DUoS Billing Details (Excluded Services)	B2B	NetworkDUoSBillingNotification			4.5.2.1	aseXML
351	Network DUoS Billing Details (Dispute Notification)	B2B	NetworkDUoSBillingNotification			4.5.2.1	aseXML

Note: Transactions 31, 31A and 31B listed in the Victorian version of this document, are not used in SA or WA.

Appendix E. Non Automated Electronic Files

Overview

The following sections specify the format of those B2B 'electronic file' transactions (not aseXML) which use CSV components. The CSV component will be incorporated into a file, compressed and then communicated via an e-mail or on a disk.

The CSV file name shall be constructed as described in the CSV File Format Specification Document. If the CSV file is attached to an e-mail, the subject line must be constructed as defined in CSV File Format Specification Document. The transaction name must be taken from the table below.

This document covers CSV details for the following transactions.

Transaction number	Transaction Type Description	CSV File Name / e-Mail Subject Component Name
45	Energy History Request	ENERGYHISTORYREQUEST
45A	Bulk Basic-Metered Energy History Request	BULKBASICHISTORYREQUEST
46	Energy History Response	ENERGYHISTORYRESPONSE
	Interval Meter Energy History Response	INTERVALHISTORYRESPONSE
71	Amend Customer Details	AMENDCUSTOMERDETAILS
74	Annual Meter Reading Schedule	METERREADINGSCHEDULE
75	Meter Reading Route Change	READINGROUTECHANGE
136	Time Expired Meters Notification	TIMEEXPIREDMETERS
289	Standing Data Change From DB	STANDINGDATACHANGE
298	Refresh of New Street Listing for MIRN Discovery	NEWSTREETLISTING
330	Notification of Planned Outage	SERVICERENEWAL
333	Meter Range Updates	METERRANGEUPDATE
	Interval Meter Data	INTERVALMETERDATA

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

Energy History Request (T45)

This transaction is an ad-hoc type request used by the User to request energy history from the Network Operator. The request may have resulted from a customer requesting such information or the User may require the information as an integrity check. It is initiated by the User and is passed to the Network Operator via e-mail.

Transaction 45, Energy History Request (T45)		
Heading/Column designator	SA/WA and Victoria Mandatory/Optional	Comment
NMI	M	
NMI_Checksum	M	
Begin_Date	M	
End_Date	M	
Full_History_Required	M	

Bulk Basic Metered Energy History Request (T45A)

This transaction is an ad-hoc type request used by the User to request bulk basic-metered energy history data from the Network Operator. The request limit is per User per day is determined by the Network Operator, for the previous two years of energy history data. The request may have resulted from a customer requesting such information or the User may require the information as an integrity check. It is initiated by the User and is passed to the Network Operator via e-mail

Transaction 45A, Energy History Request (T45A)		
Heading/Column designator	SA/WA and Victoria Mandatory/Optional	Comment
Request_Type	M	Must be "EHR"
NMI	M	
NMI_Checksum	M	
GBO_ID	M	User's GBO ID
Begin_Date	M	yyyy-mm-dd
End_Date	M	yyyy-mm-dd
Email_Address	M	User's email address code as recorded by the Network Operator

Energy History Response (T46)

This transaction is a response to the Energy History Request (T45) for a basic meter. This response is initiated by the Network Operator and is passed to the User via e-mail. The Meter Status is indicative of the current meter status and has no relevance to history.

Transaction 46, CSVHistoryResponseData			
Heading/Column designator	SA/WA Mandatory/ Optional	Victoria Mandatory/ Optional	Comment
NMI	M	M	
NMI_Checksum	M	M	
RB_Reference_Number	O	O	
Reason_for_Read	M	M	
Gas_Meter_Number	M	M	
MeterTypeSizeCode	M	Not included	
Gas_Meter_Units	M	M	
Previous_Index_Value	O	O	Required unless this is the first read for a meter. If not provided the Consumed_Energy will be zero.
Previous_Read_Date	O	O	Required unless this is the first read for a meter. If not provided the Consumed_Energy will be zero.
Current_Index_Value	M	M	
Current_Read_Date	M	M	
Volume_Flow	M	M	Volume Flow is measured in cubic meters
Average_Heating_Value	M	M	
Pressure_Correction_Factor	M	M	
Consumed_Energy	M	M	Consumed Energy is measured in Megajoules
Type_of_Read	M	M	
Estimation_Substitution_Type	O	O	Required if Type of Read = "E" or "S"
Estimation_Substitution_Reason_Code	O	O	Required if Type of Read = "E" or "S"

Transaction 46, CSVHistoryResponseData			
Heading/Column designator	SA/WA Mandatory/ Optional	Victoria Mandatory/ Optional	Comment
Meter_Status	O	M	This element reflects the current meter status. Not used in WA.
Next_Scheduled_Read_Date	M	M	
Hi_Low_Failure	M	M	
Meter_Capacity_Failure	M	M	
Adjustment_Reason_Code	M	M	If not = "NC" indicates Meter Data Adjustment
Energy_Calculation_Date_Stamp	NR	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	NR	This element is defined for use in the corresponding B2M transactions. It is not required for the transactions in this document.

Interval Meter Energy History Response

This transaction is a response to the Energy History Request (T45) for an interval meter. This response is initiated by the Network Operator and is passed to the User via email. Note that the Meter Type is assumed to be 'Interval' from the transaction header. This CSV file is identical in structure to that used to provide Interval Meter Data

INTERVALHISTORYRESPONSE		
Heading/Column designator	SA/WA Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Current_Read_Date	M	
Type_of_Read	M	Note: the allowed value 'deemed' does not apply for this transaction
Daily_Heating_Value	M	
CONSUMPTION_HR01	M	
CONSUMPTION_HR02	M	

INTERVALHISTORYRESPONSE		
Heading/Column designator	SA/WA Mandatory/ Optional	Comment
CONSUMPTION_HR03	M	
CONSUMPTION_HR04	M	
CONSUMPTION_HR05	M	
CONSUMPTION_HR06	M	
CONSUMPTION_HR07	M	
CONSUMPTION_HR08	M	
CONSUMPTION_HR09	M	
CONSUMPTION_HR10	M	
CONSUMPTION_HR11	M	
CONSUMPTION_HR12	M	
CONSUMPTION_HR13	M	
CONSUMPTION_HR14	M	
CONSUMPTION_HR15	M	
CONSUMPTION_HR16	M	
CONSUMPTION_HR17	M	
CONSUMPTION_HR18	M	
CONSUMPTION_HR19	M	
CONSUMPTION_HR20	M	
CONSUMPTION_HR21	M	
CONSUMPTION_HR22	M	
CONSUMPTION_HR23	M	
CONSUMPTION_HR24	M	
TOTAL_DAILY_CONSUMPTION	M	
PEAK_RATE	M	WA only, the peak flow rate during the day

Amend Customer Details Six Monthly Refresh (T71) – Not used in WA

This transaction is used to notify a Network Operator to update Customer Contact details such as “Customers Name” for a given MIRN etc. It is initiated by the User and is passed to the Network Operator and the frequency once ever six months.

TRANSACTION 71 AMENDCUSTOMERDETAILS		
Heading/Column designator	Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	

TRANSACTION 71 AMENDCUSTOMERDETAILS		
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
Business_Name	O	Contains company or business name
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
Movement_Type	M	A code that indicates the customer details update status "MI" = Move In "MO" = Move Out "UP" = Update

Annual Meter Reading Schedule (T74)

This transaction is used to advise the User of the annual listing of proposed reading schedule. It is initiated by the Network Operator and is passed to the User. 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	SA/WA and Victoria Mandatory/ Optional	Comment
Scheduled_Reading_Day_Num ber	M	
Meter_Read_Frequency	M	
Date_of_Future_Read	M	

Meter Reading Route Change (T75)

This transaction is used to notification a User of a change to schedule reading day. It is initiated by the Network Operator and is passed to the User.

Transaction 75, CSVAmendScheduledReadingDay		
Heading/Column designator	SA/WA and Victoria Mandatory/Optional	Comment
NMI	M	
NMI_Checksum	M	
Reading_Day_Change_Effective_Date	M	
Scheduled_Reading_Day_Number	M	

Time Expired Meters Notification (Routine Meter Change in WA) (T136)

This transaction is an ad-hoc type advice used by the Network Operator to notify the User of any planned meter changes it expects to undertake as a result of the Network Operator's meter time expired program change. The User may use this information to advise customers and/or call centres of any such changes. It is initiated by the Network Operator and is passed to the User.

This transaction is not used in SA. For meter exchanges, please refer to T330.

Transaction 136		
Heading/Column designator	SA/WA and Victoria Mandatory/Optional	Comment
NMI	M	
NMI_Checksum	M	
Proposed_Meter_Change_Start_Date	M	
Proposed_Meter_Change_End_Date	M	

Standing Data Change From Network Operator (T289)

This transaction is sent to the User to advise that a change in either the MIRN Standing Data or Meter Standing Data has occurred.

Transaction 289			
Heading/Column designator	SA/WA Mandatory/ Optional	Victoria Mandatory/ Optional	Comment
NMI	M	M	
NMI_Checksum	M	M	
Gas_Meter_Number	O	Not included	
Pressure_Correction_Factor	O	Not included	
MeterTypeSizeCode	O	Not included	
Transmission_Zone	O	O	
Heating_Value_Zone	O	O	
Distribution_Tariff	O	O	
Standing_Data_Effective_Date	M	M	

Refresh of New Street Listing for MIRN Discovery (T298)

The Network Operator must make available in an electronic form a remotely accessed street/suburb combination listing for Users. It is used by the User to assist with MIRN Discovery requests (eg: the street name the Network Operator uses in its database). The date of file creation is to be taken as the date on which the data was updated.

The data is prepared by the Network Operator and can either be download from the Network Operator's website or e-mailed, if requested.

Transaction 298			
Heading/Column designator	SA/WA Mandatory/ Optional	Victoria Mandatory/ Optional	Comment
Street_Name	M	M	
Street Type	O	M	To be populated where available. Note – called 'Street ID' in Victorian document
Street Suffix	O	Not included	
Suburb_Or_Place_Or_Locality	M	M	

Transaction 298			
Heading/Column designator	SA/WA Mandatory/ Optional	Victoria Mandatory/ Optional	Comment
State_Or_Territory	O	Not Included	This will be populated in WA
Postcode	O	Not Included	This will be populated in WA

Notification of Planned Outage (T330) – Not used in WA.

This transaction may be passed by a Network Operator to a User to notify of outages of gas supply. It is an ad-hoc advice to the User and advises of any planned service/mains work which may interrupt supply. The User may provide this information to advise their call centre to advise customers, when requested. It is initiated by the Network Operator and is passed to the User via email. The transaction is provided on an ad hoc basis with at least 4 business days notice.

Note:

1. With respect to mains renewal, the Distributor may provide (as required) notification of impacted streets/areas via a communication letter to the Retailer rather than the CSV file listed below.
2. With respect to planned meter replacements, the Distributor may provide notification of impacted streets/areas via a communication letter to the Retailer rather than the CSV file as listed below.

Transaction 330		
Heading/Column designator	SA and Victoria Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Planned_Outage_Commencem ent_Date	M	
Planned_Outage_Commencem ent_Time	M	
Planned_Outage_Completion_ Date	M	
Duration_of_Outage	M	

Meter Range Updates (T333) – Not used in WA.

This transaction is used to notify a User to update Meter Attributes such as “Number of Dials” for a given Meter Number Range etc. It is initiated by the Network Operator and is passed to the User.

Transaction 333		
Heading/Column designator	SA and Victoria 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	

Interval Meter Data

This transaction is used by the Network Operator to provide Interval Meter Data to the User. The data can be downloaded from a secure web site operated by the Network Operator. Note that the Meter Type is assumed to be 'Interval' from the transaction header. Note that this file is also used for an interval meter MDN response

Interval Meter Data		
Heading/Column designator	SA/WA Mandatory/ Optional	Comment
NMI	M	
NMI_Checksum	M	
Current_Read_Date	M	
Type_of_Read	M	Note: the allowed value 'deemed' does not apply for this transaction
Daily_Heating_Value	M	
CONSUMPTION_HR01	M	
CONSUMPTION_HR02	M	
CONSUMPTION_HR03	M	
CONSUMPTION_HR04	M	
CONSUMPTION_HR05	M	
CONSUMPTION_HR06	M	
CONSUMPTION_HR07	M	
CONSUMPTION_HR08	M	
CONSUMPTION_HR09	M	
CONSUMPTION_HR10	M	
CONSUMPTION_HR11	M	
CONSUMPTION_HR12	M	
CONSUMPTION_HR13	M	
CONSUMPTION_HR14	M	
CONSUMPTION_HR15	M	
CONSUMPTION_HR16	M	
CONSUMPTION_HR17	M	
CONSUMPTION_HR18	M	
CONSUMPTION_HR19	M	
CONSUMPTION_HR20	M	
CONSUMPTION_HR21	M	
CONSUMPTION_HR22	M	
CONSUMPTION_HR23	M	
CONSUMPTION_HR24	M	

Interval Meter Data		
Heading/Column designator	SA/WA Mandatory/ Optional	Comment
TOTAL_DAILY_CONSUMPTION	M	
PEAK_RATE	M	WA only, the peak flow rate during the day

Note the following are SA transactions only:

INTERVALMETERDATA INTERVALHISTORYRESPONSE		
Heading/Column Designator	SA Mandatory /Optional	Comment
MIRN	M	
MIRN_CHECKSUM	M	
GAS_DAY	M	
CONSUMPTION_HR01	M	
CONSUMPTION_HR02	M	
CONSUMPTION_HR03	M	
CONSUMPTION_HR04	M	
CONSUMPTION_HR05	M	
CONSUMPTION_HR06	M	
CONSUMPTION_HR07	M	
CONSUMPTION_HR08	M	
CONSUMPTION_HR09	M	
CONSUMPTION_HR10	M	
CONSUMPTION_HR11	M	

INTERVALMETERDATA INTERVALHISTORYRESPONSE		
Heading/Column Designator	SA Mandatory /Optional	Comment
CONSUMPTION_HR12	M	
CONSUMPTION_HR13	M	
CONSUMPTION_HR14	M	
CONSUMPTION_HR15	M	
CONSUMPTION_HR16	M	
CONSUMPTION_HR17	M	
CONSUMPTION_HR18	M	
CONSUMPTION_HR19	M	
CONSUMPTION_HR20	M	
CONSUMPTION_HR21	M	
CONSUMPTION_HR22	M	
CONSUMPTION_HR23	M	
CONSUMPTION_HR24	M	
TOTAL_DAILY_CONSUMPTION	M	
TYPE_OF_READ	M	Note: the allowed value 'deemed' does not apply for this transaction

ENERGYHISTORYREQUEST		
Heading/Column Designator	SA Mandatory/ Optional	Comment
MIRN	M	
MIRN_CHECKSUM	M	
Begin_Date	M	
End_Date	M	
Retailer_GB0ID	M	

Note: This is a new transaction:

HEATINGVALUEDATA		
Heading/Column designator	SA Mandatory/ Optional	Comment
GAS_DAY	M	
HV_ZONE	M	
HEATING_VALUE	M	

Appendix F. Unstructured Transactions

Overview

The following transactions have been identified for the process of a user requesting an update from a basic to an interval meter.

Transaction number	Transaction Type Description
120	Request Basic Meter Upgrade
121	Quote for Upgrade of Basic Meter
122	Accept Quote for Basic Meter Upgrade

The format of these transactions is not defined as they are generated infrequently. It is largely manual process and the contents of the transactions will differ on a case-by-case basis.

It should be noted that transaction 122 may take the form of an aseXML service order transaction.

The following transactions have been identified for the process of a network operator advising a user that they have entered into a direct billing arrangement.

Transaction number	Transaction Type Description
339	Direct Billing Arrangement

The format of this transaction is not defined as it is infrequently generated. It is expected that this transaction will be sent by email to the User advising of the MIRN and the duration of the arrangement that has been entered into. Other content of the transactions will differ on a case-by-case basis.

The following transactions have been identified for the process of a user advising a network operator to undertake a crossed meter investigation.

Transaction number	Transaction Type Description
354	Crossed Meter Investigation, Initiate Request

The format of this transaction is via e-mail or fax using a standard form called "Field Investigation Report" which is published on the AEMO website.

The following transactions have been identified for the process of a network operator advising a user of the outcome of a crossed meter investigation.

Transaction number	Transaction Type Description
355	Crossed Meter Investigation, Investigation Report

The format of this transaction is via e-mail or fax using a standard form called "Field Investigation Report" which is published on the AEMO website.

The following transactions have been identified for the process of a user requesting a network operator to undertake a Meter High Accounts (MHAs) or Meter Retake and Test (MRT) investigation.

This Unstructured Transaction is in addition to the B2B Service Order Request MHA or MRT.

Transaction number	Transaction Type Description
357	Meter High Accounts (MHAs) or Meter Retake and Test (MRT) Investigation, Initiate Request

The format of this transaction is via e-mail or fax using a standard form called "MHA / MRTRequest Template" which is published on the AEMO website.

The following transactions have been identified for the process of a network operator advising a user of the outcome of a Meter High Accounts (MHAs) or Meter Retake and Test (MRT) investigation.

Transaction number	Transaction Type Description
358	Meter High Accounts (MHAs) or Meter Retake and Test (MRT) Investigation Report

The format of this transaction is via e-mail or fax using a standard form called "MHA / MRT Request Template" which is published on the AEMO website.

Appendix G. RoLR Process (SA Only)

1. Customer and Site Details (Monthly update) (T900)

In order to manage the 'transfer' and customer set up following a RoLR event, all Users are to provide to AEMO, on a monthly basis, a list of MIRNS and associated details for which they are the current user.

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

This file is to be provided in CSV format. The following file naming convention is to be used:

SAGAS_CUSTOMERSITEDETAILSMONTHLY_OriginatorID_RecipientID_CCYYMMDDHHmmSS

Note:

1. Reference to Default RoLR as described below, is as appointed by the Australian Energy Regulator, in accordance with Part 6 of the NERL.

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 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

TRANSACTION 900		
Heading/Column designator	Mandatory / Optional	Comment
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
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: Nil.
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	12 – string. Contains Customer's Driver's license
RoLR	M	Default RoLR

2. Customer and Site Details (T970)

The T970 is a file that AEMO provide the designated RoLR(s) to manage the transfer and set up of customers in their systems. AEMO will provide this in the CSV format outlined below.

The method of file delivery is FTP from the GRMS.

The following naming convention is to be used.

SAGAS_ROLRSDT_OriginatorID_RecipientID_CCYYMMDDHHmmSS

Name	Data Type	No nulls	Primary Key	Comments
mim	Varchar(10)	True	True	MIRN
checksum	tinyint	True	False	MIRN Checksum
bl	numeric(9,1)	True	False	Base load

tsf	numeric(9,1)	True	False	Temperature sensitivity
person_name_title	Varchar(12)	False	False	Contains customer's title
person_name_given	Varchar(40)	False	False	Contains customer's first name
person_name_family	Varchar(40)	False	False	Contains customer's surname if Business-Name is not populated
business_name	Varchar(60)	False	False	Contains company or business name, required if Person_Name_Family is not populated
building_orproperty_name_1	Varchar(36)	False	False	Defines the building or Property name as per the Australian Standard AS4590
building_orproperty_name_2	Varchar(36)	False	False	Defines the building or Property name as per the Australian Standard AS4590
contactdetail_personname	Varchar(60)	False	False	Contains contact's mailing name or company name
flat_or_unit_type	varchar(25)	False	False	Code that defines the type of flat or unit as per Australian Standard AS4590-1999 e.g APT, DUP, SHED, SHOP, VLLA
flat_or_unit_number	varchar(25)	False	False	Defines the flat or unit number as per Australian Standard AS4590-1999
floor_or_level_type	varchar(25)	False	False	Code that defines the floor or level type as per Australian Standard AS4590-1999. Allowable codes include B, FL, G, LG, M, UG
floor_or_level_number	varchar(25)	False	False	Defines the floor or level number as per Australian Standard AS4590-1999
location_description	varchar(25)	False	False	Defines the location descriptor as per Australian Standard AS4590-1999. This is a catch-all field for non standard address information
house_number_1	varchar(25)	False	False	Defines the house number as per Australian Standard AS4590-1999 (The combination of House Number and House Number Suffix may occur up to two times)
house_number_2	varchar(25)	False	False	Defines the house number as per Australian Standard AS4590-1999 (The combination of House Number and House Number Suffix may occur up to two times)
house_number_suffix_1	varchar(25)	False	False	Defines the house number suffix as per Australian Standard AS4590-1999 (The combination of House Number and House Number Suffix may occur up to two times) This field may only contain alphanumeric characters
house_number_suffix_2	varchar(25)	False	False	Defines the house number suffix as per Australian Standard AS4590-1999 (The combination of House Number and House Number Suffix may occur up to two times) This field may only contain alphanumeric characters
lot_number	varchar(25)	False	False	Defines the lot number as per Australian Standard AS4590-1999

street_name_1	varchar(30)	False	False	Defines the street name as per Australian Standard AS4590-1999 (The combination of Street Name, Street Type and Street Suffix may occur up to two times) This field may only contain letters, numbers, hypens ('-') and spaces.
street_name_2	varchar(30)	False	False	Defines the street name as per Australian Standard AS4590-1999 (The combination of Street Name, Street Type and Street Suffix may occur up to two times) This field may only contain letters, numbers, hypens ('-') and spaces.
street_type_1	varchar(25)	False	False	A code that defines the street type as allowed for use in MSATS
street_type_2	varchar(25)	False	False	A code that defines the street type as allowed for use in MSATS
street_suffix_1	varchar(2)	False	False	A code that defines the street suffix as per the Australian Standard AS4590-1999. Allowable codes include CN, E, EX, LR, N, NE, NW, S, SE, SW, UP, W
street_suffix_2	varchar(2)	False	False	A code that defines the street suffix as per the Australian Standard AS4590-1999. Allowable codes include CN, E, EX, LR, N, NE, NW, S, SE, SW, UP, W
site_address_city	varchar(29)	False	False	Defines the suburb or locality as per the Australian Standard AS4590-1999
site_address_state	varchar(3)	False	False	A code that defines the state as per the Australian Standard AS4590-1999. e.g AAT, ACT, NSW, NT, QLD, SA, TAS, VIC, WA
site_address_postcode	varchar(4)	False	False	Defines the postcode as per the Australian Standard AS4590-1999. This field may only contain 3 numbers.
mail_address_line_1	varchar(80)	False	False	Contains formatted postal address details
mail_address_line_2	varchar(80)	False	False	Contains formatted postal address details
mail_address_line_3	varchar(80)	False	False	Contains formatted postal address details
suburb_or_place_or_locality	varchar(46)	False	False	Contains formatted postal address details
state_or_territory	varchar(3)	False	False	Contains formatted postal address details
postcode	varchar(4)	False	False	Contains formatted postal address details
contactdetail_phonenumber_1	varchar(15)	False	False	Contains contact's primary phone number
contactdetail_phonenumber_2	varchar(15)	False	False	Contains contact's secondary phone number
rebate_code	varchar(4)	False	False	Allowed Codes: PC Pension Card HCC Health Care Card HBC Health Benefits Card VAC Veterans Affairs Card
pensioner_or_healthcare_cardnumber	varchar(15)	False	False	10 - string Nine Numeric and one alpha unique identifier as issued by the Dept. of Social Security or Veterans' Affairs
from_date	Datetime	False	False	Effective date at which the card is valid. e.g. dd mmm yyyy
to_date	datetime	False	False	Date at which the card expires. e.g. dd mmm yyyy
date_of_birth	datetime	False	False	Customer's date of Birth. e.g. dd mmm yyyy
customer_identification	varchar(12)	False	False	Contains Customer's Driver's license
rolr	Varchar(12)	True	False	Default Retailer

3. List of RoLR transfers (T980)

After a RoLR event has occurred, AEMO will provide the network operator a list of the MIRNs that have been transferred away from the failed retailer to the designated RoLR(s). AEMO will provide this in the CSV format outline below.

The method of file delivery is FTP from the GRMS.

The following naming convention is to be used.

SAGAS_ROLR_LISTOFROLRTRANSFERS_OriginatorID_RecipientID_CCYYMMDDHHmmSS

Name	Data Type	No Nulls	Primary Key	Comments
mim	Varchar(10)	True	True	MIRN
checksum	tinyint	True	False	MIRN Checksum
frb	Varchar(12)	True	False	Failing Retailer Business. e.g ENERGYAUST
rolr	Varchar(12)	True	False	Designated retailer. E.g ORIGIN
rolr_date	Datetime	True	False	e.g. yyyy-mm-dd : Date Designated RoLR became FRO

4. MIRN Standing Data (T1000)

In order for the designated RoLR(s) to manage the customer set up following a RoLR event, the network operator is to provide the designated RoLR(s) the standing data details for MIRNs which the designated RoLR(s) has become the current user for during the RoLR event. Network Operator provide this in the CSV format outlined below.

This will be based on the MIRNs provided to the Network Operator in the T980.

The method of data delivery will be via an agreed method between parties and not via the FRC hub.

The following file naming convention is to be used:

SAGAS_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
Transmission_Zone	O	
Heating_Value_Zone	O	
Customer_Characterisation	O	Required if basic meter attached

Transaction 1000		
Heading/Column designator	Mandatory / Optional	Comment
Customer_Classification_Code	O	Required if provided by Retailer
Customer_Threshold_Code	O	
MIRN_Status	O	
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.
Meter_Read_Frequency	O	Required if Basic Meter is attached.
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.
Excluded_Services_Charges_Charge_Item_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".
Excluded_Services_Charges_Charge_Item_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".
Excluded_Services_Charges_Charge_Item_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.

5. Account Creation (T1005)

In order for the designated RoLR(s) to manage the customer set up following a RoLR event, the network operator is to provide to the designated RoLR(s) the standing data details for MIRNs which

the designated RoLR(s) has become the current user for during the RoLR event. Network Operator provide this in the CSV format outlined below.

This will be based on the MIRNs provided to the network operator in the T980.

The method of data delivery will be via an agreed method between parties and not via the FRC hub.

The following file naming convention is to be used:

SAGAS_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. Customer and Site Details from FRB to RoLR (T1010)

In order to manage the 'transfer' and customer set up following a RoLR event, the failed retailer is to provide to the designated RoLR(s) a list of MIRNS and associated details for which they are the current user at the time of the RoLR event. Failed Retailer is to provide this in the CSV format outlined below.

The trigger for this data delivery will be the AER RoLR Notice.

The method of data delivery will be via an agreed method between parties and not via the FRC hub.

The following file naming convention is to be used:

SAGAS_CUSTOMERSITEDetailsFRB_OriginatorID_RecipientID_CCYYMMDDHHmmSS

Transaction 1010		
Heading/Column designator	Mandatory / Optional	Comment

Transaction 1010		
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 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	
Street_Name_2	O	
Street_Type_1	M	
Street_Type_2	O	
Street_Suffix_1	O	
Street_Suffix_2	O	

Transaction 1010		
Heading/Column designator	Mandatory / Optional	Comment
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	O	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	Nil
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	Default RoLR

7. Wholesale Market Data

AEMO will provide the designated RoLR(s) information in order for their business to complete its Wholesale Market nominations. This is specified in the STTM MIS Report Specification.

8. List of Cancelled Service Orders (T1050)

This data can be delivered by the network operator to the designated RoLR via an agreed method between the parties. If delivery is via e-mail then the standard format is to apply.

The following service order codes eligible for Network Operator cancellation in a RoLR event are: MAP; MRC; MRF; MRT; OTH; RSR; UMS; USR; AML; DSD and MHA. All other service orders must be actioned as per business as usual processes.

Below is an example if Envestra is sending the file:

E-mail address:

Subject Line:

“SAGAS_ 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	
Street_Suffix_1	O	
Street_Suffix_2	O	
Site_Address_City	M	
Site_Address_State	M	
Site_Address_Postcode	M	

Transaction 1050		
Heading/Column designator	Mandatory / Optional	Comment
Postcode		Contains formatted postal address details
Special Job Instructions	M	

9. List of AEMO Meter Fixes (T1060)

After a RoLR event has occurred, AEMO will provide the designated RoLR(s) meter fix information. AEMO will provide this in CSV format to the designated RoLR..

The method of file delivery is FTP from the GRMS.

The following naming convention is to be used:

SAGAS_LISTOFAEMOMETERFIXES_OriginatorID_RecipientID_CCYYMMDDHHmmSS

CSV HEADER ROW	CONTENT
MIRN	The MIRN.
checksum	The MIRN checksum.
Baseload	The Baseload – if not applicable, “NULL”
Temperature_Sensitivity_Factor	The temperature sensitivity factor - if not applicable, “NULL”.
Network_Id	The SA sub-network id.
MIRN_Status	Can be either "Commissioned" or "Decommissioned".
Party	Current user's GBOD.
(1) Role	(2) "USER" is the only value to be accepted with this transaction.
Date_Service_Order_Completed	The date the service order was completed on.

10. RoLR CATS Accelerated and Cancelled MIRNs (T1070)

After a RoLR event has occurred, AEMO will provide the network operator, current user and new user a list of accelerated transfers. AEMO will provide this in CSV format.

The method of file delivery is FTP from the GRMS.

The following naming convention is to be used:

SAGAS_ACCELERATEDTRANSFERS_OriginatorID_RecipientID_CCYYMMDDHHmmSS

CSV HEADER ROW	CONTENT
Change_Id	Change request Id
MIRN	The MIRN
checksum	The MIRN checksum.
Change_Reason_Code	<p>Identify the reason for the change. Possible values are:</p> <p>0001</p> <p>Prospective in situ: where a customer changes retailer without moving premises.</p> <p>0002</p> <p>Prospective move in: when a customer remains with the same retailer but changes address (supply point) to one currently belonging to another retailer. This can also apply to a new customer occupying a supply point currently registered to another retailer or even when the supply point is a new one. There is no objection to a move in.</p> <p>0003</p> <p>Correction of Transfer: to correct mistakes that may have occurred in the past</p>
Change_Status	The current status of the change request
Actual_Change_Date	Date on which the Customer Transfer is required
Actual_End_Date	In relation to a transfer request which nominates a retrospective transfer date as the proposed transfer date
Role_Name_Accelerated_transfers	<p>This is the role in the transfer played by the recipient of this report.</p> <p>Possible values are:</p> <p>NO: Network Operator</p> <p>USER C: Current User</p> <p>USER N: New User</p>
New_Fro	Contains the initiator of the Change Request only when sent to New User and Network Operator



FRC B2M-B2B Hub System Specifications

For the SA and WA Gas Retail Markets

Version: 3.87
Last Update: 17 May 2015 [TBA](#)

Version History

Version	Date	Author(s)	Changes and Comments
0.1	30/9/03	D. Bone	Minor changes to VENCORP FRC B2B System Specifications document to change terminology in relation to REMCo and South Australia and Western Australia.
0.2	2/10/03	D Bone	Consistency checks and disclaimers.
1.0	3/10/03	C Madden	Consistency check
2.0	20/11/03	B.Eaves	Minor changes following review with VENCORP
2.01	28/11/03	D. Bone	<ul style="list-style-type: none"> Correcting a versioning issue. Renamed document from FRC (B2M&B2B) Transaction and Messaging Specifications to FRC B2M-B2B Hub System Specifications for clarity and market familiarity. Change cross references from FRC (B2M&B2B) Transaction and Messaging Architecture to FRC B2M-B2B Hub System Architecture for clarity and market familiarity.
3.0	9/3/04	B. Eaves	Addition of GBO IDs to Section 4.3.1. Addition of Appendix D Low Volume Interface. Minor amendments and clarifications to Introduction.
3.1	3/5/04	B. Eaves	Addition of GBO for REMCo to Section 4.3.1.
3.2	1/6/05	REMCo	Addition of changes to sections 2.6.3, 4.3.5 and 4.3.6 in accordance with Rule change C05/04S.
3.3	27/03/07	REMCo	Corrections and clarifications relating to GBO IDs. Minor corrections.
3.4	1/10/10	T. Sheridan	Updated to reflect the relevant Market Operator requirements following the transfer of REMCo's SA retail market operations to AEMO
3.5	1/07/11	D. McGowan	Updated section 2.6.1 (High Priority Transaction) by replacing the existing text with the words "None defined". This change makes documentation consistent with operational practice and inline with other jurisdictions that use the FRC Hub.
3.6	1/1/14	D. McGowan	IN004/12 – Redundant Provision and minor GIP and Spec Pack changes
3.7	17/05/15	A. Ng	IN023/14 – FRC HUB Upgrade Project <ul style="list-style-type: none"> Changed Test Hub to Pre-Production Hub
3.8	TBA	D. McGowan	Update to include: WA <ul style="list-style-type: none"> C02/16C – REMCo to AEMO transition changes. SA <ul style="list-style-type: none"> IN029/16 – REMCo to AEMO transition

Preamble:

This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes:

(a) Several terms have been changed to a general term where possible with a market specific definition; and

(b) In the interests of keeping new terms and acronyms to a minimum, the original word has been italicised where possible to indicate that its definition again depends on its location. This approach is to promote interchangeability in these documents for the benefit of stakeholders from both states.

The terms and their relevant definitions are as follows:

Term:	South Australian Market Definition:	Western Australian Market Definition:
Market Operator	AEMO	REMCo
Retail Market Rules (RMR)	Retail Market Procedures	Retail Market Rules

For more information please contact the Market Operator in your state:

	AEMO	REMCo
Website:	http://www.aemo.com.au	http://www.remco.net.au

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1. Introduction

1.1. Purpose

This document provides specifications and settings that apply to the transaction and messaging systems to be used for both B2M and B2B communications in the South Australian and Western Australian Gas Retail Markets.

This document forms part of the [AEMO](#) Specification Pack and has been prepared by ~~the Market Operator~~ [AEMO](#) for the benefit of participants in the South Australian and Western Australian Gas Markets.

These specifications and settings will become superseded from time to time throughout the life of the FRC B2B System (FBS). The specifications comprise standard service names, time intervals for message timeouts, standard participant identifiers, XML header mappings, and specific FBS port and network addressing details.

These specifications are the variable implementation details that apply to the FBS architecture, as defined in *FRC B2M-B2B Hub System Architecture* document.

As both B2M and B2B transactions will use the same architecture, the term 'B2B' has been used to apply to both transactions between participants and also transactions to the Market System.

1.2. Audience

The document has been written for business and IT personnel within industry participants in the South Australian and Western Australian gas industry, as well as [AEMO's](#) ~~the Market Operator's~~ business and IT personnel. It is expected that the audience will have a familiarity with the overall business endeavour of Gas FRC in the South Australian and Western Australian Gas Retail Market and with the artefacts listed in the Related Documents section of this document.

1.3. Related Documents

This document should be read in conjunction with the other documents contained within the [AEMO](#) Specification Pack as defined in the [AEMO](#) Specification Pack – Usage Guide.

1.3.1. Victoria

A number of documents were referred to in the Victorian version of this document. For further information about Victorian processes and specifications of the following related documents or artefacts that have been issued as part of Participant Build Packs 1, 2 and 3 and should be read conjunction with this document. The table below defines the documents referred to in the Victorian version of this document.

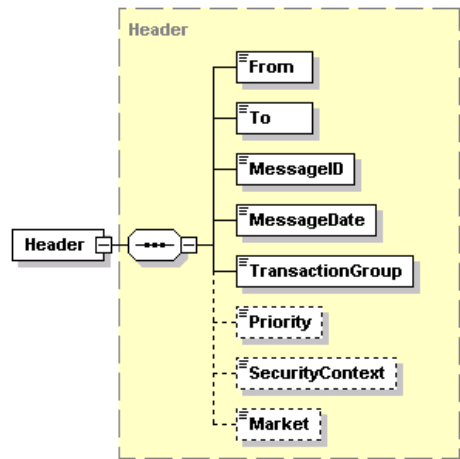
Ref	Artefact Name	Version	Responsible Party or Authors
1	Participant Build Pack 3 FRC B2B System Architecture	Current version as published in the GIP	AEMO
2	Participant Build Pack 3 Interface Definitions (familiarity only)	Current version as published in the GIP	AEMO
3	ebXML Message Service Specification	1.0	UN/CEFACT and OASIS
4	Participant Build Pack 1 (familiarity only)	Current version as published in the GIP	AEMO
5	Participant Build Pack 2 (familiarity only)	Current version as published in the GIP	AEMO
6	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	ASWG

2. General Information

2.1. aseXML to ebXML Overview

Chapters 3 and 4 in this document define specifically the relationships between the contents of the aseXML header and the ebXML message elements. This section gives a high level overview of these relationships; along with timing considerations in the FBS.

The structure of the aseXML Header is as follows:



aseXML Header Format

Five fields from the aseXML header will be used to derive ebXML message element information. The `From` and `To` fields in the ebXML header are derived according to the content of the aseXML `From` and `To` fields, in conjunction with the optional `SecurityContext` field. Message elements including `Service` names and associated message timing elements and parameters are derived from the optional `Priority` element. The `TransactionGroup` element is mapped directly to the `Action` element name.

The following table shows which ebXML elements are based on the contents of the aseXML Header elements.

aseXML Header elements	No mapping	ebXML element	ebXML element
------------------------	------------	---------------	---------------

		Direct mapping	Derived mapping
From		From	
To		To	
MessageId	x		
MessageDate	x		
TransactionGroup		Action	
Priority			Service
Priority			CPAId
Priority			TimeToLive
SecurityContext	x		
Market	x		

2.2. Derivation of Gateway Identifiers

The FRC Hub maps logical names for the sender and receiver (`From` and `To` fields) to physical URL's. Throughout the life of the FBS, participants will have the need to run test data through the FBS to test both the internal and network components of their systems. It is important that test transactions are never confused with production systems. To facilitate this distinction, the FBS administration will supply all participants with two sets of digital certificates. One set will be for production systems, the other for test systems. The use of certificates to distinguish between environments means that participants can use the same Gateway Identifier for both the production and Pre-Production environments, removing the need for code changes within each participant's migration process. While Gateway Identifiers on the two hubs will be the same, each hub will hold a distinct profile for each participant, with participants supplying the URL's to which each profile maps.

Gateway Identifiers in the FBS will be mechanically derived from the Participants GBO IDs, a set of unique ten-character Id's assigned to industry participants. These Gateway Identifiers are used as the content of the aseXML `From` and `To` elements.

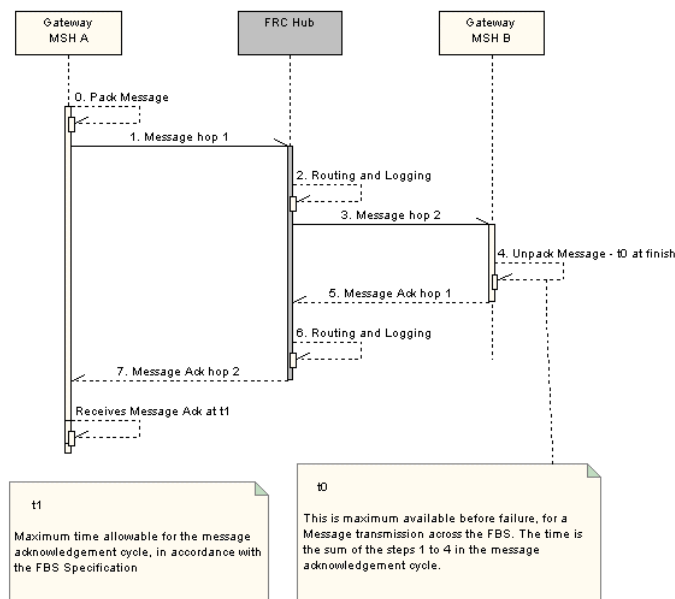
- The content of the ebXML `From` field will be the same Gateway Identifier as is contained in the aseXML `From` field.
- The content of the ebXML `To` field will be the same Gateway Identifier as is contained in the aseXML `To` field.

Gateway Identifiers in the FBS will be used as the `PartyId` element – see section 4.3.1.

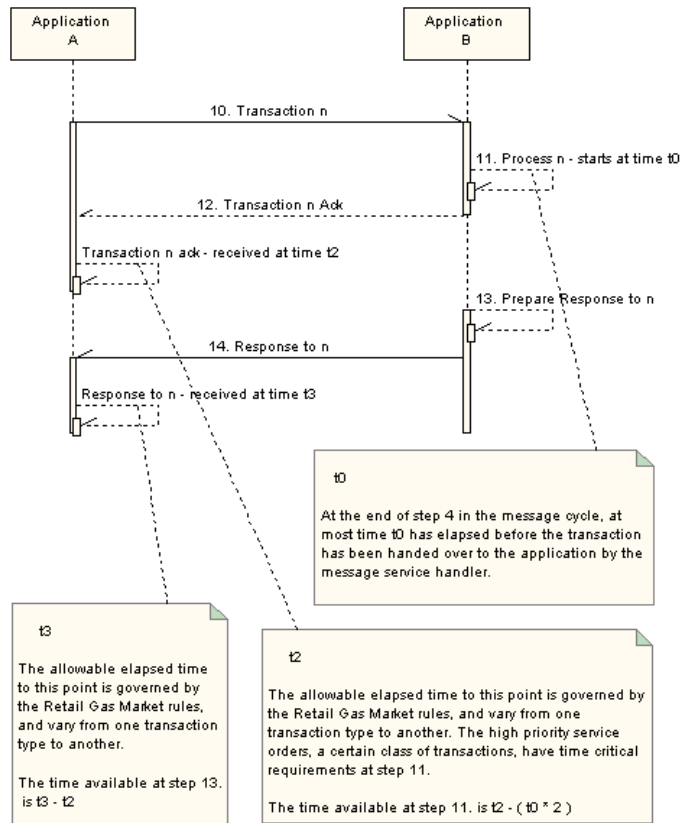
2.3. Timing implications

2.3.1. Definitions:

1. Allowable time drift on Message Service Handlers is ± 15 seconds, hence maximum time error will be 30 seconds.
2. Timing steps in the Message cycle are according to the following diagram:



3. **t0** is the maximum time to pass before transaction processing can begin.
For high priority messages there are no retries
t0 = sum(steps 1 to 4 in Definition 2.)
For other medium and low priority messages **t0 = t1**
4. **t1** is the maximum time to pass before message acknowledgment receipt
high priority t1 = 90 seconds message cycle + 30 seconds drift error
= 2 minutes
medium priority and low priority **t1 = 1 hour**
5. Timing Steps in the Transaction and Response Cycle are according to the following diagram:



6. **t2** is the maximum time to pass before transaction acknowledgement receipt
Subsequent to various discussions and calculations regarding functionality in back end systems, the Gas Transaction Protocol Working Group has decided the various transaction-applications will not of deliver the responsiveness required to support high priority transactions through the FBS. Transaction acknowledgement receipt times are in section 2.5
7. **t3** is the maximum time to pass before a transaction response (if appropriate) is received. These times are governed by the Retail Market [RulesProcedures](#) and will be policed by audit.

2.3.2.Critical Considerations:

The FBS is not to be used for transmitting high priority service orders. If this situation changes, these are the relevant considerations.

Critical time considerations in implementing Message Service Handlers and transaction processing applications relate to steps 4 and 11 (from the definitions diagrams) high priority messages.

- step 4 is the time available to process a Message Acknowledgment
- step 11 is the time available to process a Transaction Acknowledgement
- If **t2** expires unacknowledged, the sender must fallback to a secondary communication mechanism.
- The total time available in responding to a high priority service order is **20 minutes**.
- Hence the total time available to the secondary mechanism is **20 minutes – t2**. Adequate time must be left for the secondary mechanism if it is needed in the event of the primary mechanism failing.

2.4. Timestamps in the FBS

In the FBS all time instants will be expressed in conformance with the ISO 8601 specification, using the methodology that includes the time offset.

– See <http://www.w3.org/TR/xmlschema-2/#dateTime>.

An example of an acceptable expression of a time instant is

2002-03-01T10:23:32+10:00

This time indicates that the current time at the locale producing the timestamp is 10:23:32 and that the locale in question is ten hours ahead of GMT.

2.5. Transaction Acknowledgement times

The Gas Transaction Protocol Working Group has determined that the times by which a transaction acknowledgement will be received shall be as follows:

High priority transaction = 29 minutes

Medium priority transaction = 270 minutes

Low priority transaction = 5pm on the following business day

Note: High-priority B2B Service Order transactions will not use the FBS for transmission. They will be treated as ‘emergency services’ per the Victorian model and will require human interaction via phone or suitable communication.

2.6. Size of aseXML Documents

2.6.1. High Priority Transactions

None defined.

2.6.2. Medium Priority Transactions

- All other non-CSV transactions will be sent as Medium Priority aseXML documents, except for those identified in the Low Priority Transactions section below.
- It is recommended that these should not be larger than 50 KB in size.

2.6.3. Low Priority Transactions

- All CSV transactions will be sent as Low Priority aseXML documents.
- The following fully tagged XML transactions will be sent as Low Priority transactions:
 - Special Read Response
 - Meter Data Verification Response
 - Service Order Response
 - Amend Site Access Details

The total maximum transaction size shall be 2 MB unless otherwise agreed in the relevant Retail Market Procedures.

2.7. aseXML Events

All aseXML transaction acknowledgements and some transactions may contain the aseXML Event element. The use of the Event element is described in the *Guidelines for Development of a Standard for Energy Transactions in XML (aseXML)* document and will not be described further here.

The purpose of this section is to describe how each element within the Event element will be used within the FBS.

2.7.1. class Attribute

Can be omitted as it has a default value of "Application". If used, must be set to "Application".

2.7.2. severity Attribute

As per the list of event codes defined by the industry. One severity will be assigned to each event code (ie same event code can not be sent with different severities).

The aseXML Guidelines indicate that an error that prevents further processing of a fully tagged aseXML transaction shall have a severity of "Fatal", while an error that prevents a single CSV row from being processed shall have a severity of "Error".

However as most participant back-end systems will not know if the data arrived in CSV or aseXML format, "Error" will be used as the severity for both fully tagged aseXML and CSV transactions if the information cannot be processed.

2.7.3.<Code> Element

As per list of event codes developed by industry.

Note that the “Description” attribute of the code remains optional. If this attribute is populated then it must match the description in the event code table developed by the industry and published as part of Participant Build Pack 3 as well as part of the SAWA B2M ICD and SAWA B2B Interface Definitions.

2.7.4.<KeyInfo> Element

Preferred

Key data required to uniquely identify the transaction or record in error (eg, if DPI was all that was needed to identify a particular record then KeyInfo would contain 1234567890). These fields have been identified by transaction and are included in the Event Code documentation in the B2M Interface Control Document and B2B System Interface Definitions document in the [AEMO](#) Specification Pack.

Minimum

Not required for aseXML transactions as the initiating transaction ID is included in the header (assumes back-end system knows the transaction was aseXML).

MIRN for majority of CSV records (this will at least narrow it down to a couple of records).

2.7.5.<Context> Element

Preferred

The portion of the data that is in error, including the field name and the data value. For aseXML transactions the field name as defined in the [AEMO](#) Specification Pack is to be used, whereas for CSV records the field name will be taken from the CSV Format Specification. Multiple values will be separated by a comma. (eg “MIRN=1234567890,Current_Index_Value=1234567”).

Minimum

Values of fields that are in error (may not be able to provide field names initially).

2.7.6.<Explanation> Element

Preferred

In the case of a CSV record, this should contain the entire CSV record containing the error.

In the case of an aseXML record, this may contain:

- A freeform comment (including internal application errors), or
- If the event code can be further clarified by providing more information, a description of the error condition.

Minimum

May contain any supporting comments or may be left blank.

2.7.7.<SupportedVersions> Element

Probably won't be implemented by most systems, but shall currently be "r9" when used.

3. aseXML Header Content

This section contains information for formatting the aseXML header content specific to the FBS. This is to be read in conjunction with the *Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)*.

3.1.1.From element

This mandatory element is to be populated with the GBO ID that applies to the enterprise sending the aseXML document. No context attribute is to be used.

3.1.2.To element

This mandatory element is to be populated with the GBO ID that applies to the enterprise for whom the aseXML document is intended. No context attribute is to be used.

3.1.3.MessageId element

This mandatory element is to be populated according to the *Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)*.

3.1.4.MessageDate element

This mandatory element is to be populated directly according to the *Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)*.

3.1.5.TransactionGroup element

This mandatory element is to be populated according to the *Guidelines for Development of A Standard for Energy Transactions in XML (aseXML)*. Each Transaction Group will be represented in the ebXML Action element under the same name as the Transaction Group. Transaction groups for each of the Vic Gas transactions are defined in the interface specifications within Participant Build Packs 2 and 3.

3.1.6.Priority element

This optional element has three allowable values for this field are "High", "Medium", and "Low". When this element is not present "Medium" will be assumed to be the default by the ebXML Message Service Handlers. This element will be used to assign the ebXML message the appropriate service level, as is discussed in detail in the next chapter.

3.1.7.SecurityContext element

The security context element only has one use within the FBS system. That use is to define the aseXML document as one that contains test transaction(s). If the aseXML document does contain test data this element must be populated with "Test". If it is a production document, this element shall be empty, or not present.

In the context of the FBS, “Test” is the only content of the SecurityContext element that has meaning.

3.1.8. Market element

While this element is optional according to the schema, it must be present, and be populated with the content “SAGAS” or WAGAS, as the default identifies AEMO.”

4. ebXML Message Service Handler Configuration

For any ebXML message, an ebXML message acknowledgement will need to be received within a time interval according to priority, as defined below; or an alert will need to be raised in the sending gateway. It is important to note that prior to sending the ebXML message acknowledgement the aseXML payload must be parsed.

It is the responsibility of the sending participant to take action if an acknowledgement to an ebXML message is not received within the timeframes for 'time-to-live' specified in this document. Each participant must have the necessary operational procedures to identify ebXML messages that have failed in this way and to transmit the contents of these messages as new ebXML messages. As specified in the B2M-B2B Hub System Architecture Document, if the persistDuration has passed since the message was first sent, a sending MSH should not resend a message with the same MessageId.

Participants can determine the approach and level of automation of the operations processes required to identify failed ebXML messages and re-transmit the contents. However, participants should ensure that these operations processes are carried out at least once per business day.

The parameters and elements referred to here are all described in detail in the associated *FRC B2M-B2B Hub System Architecture* document. The following element tree shows in bold type the ebXML elements that require special configuration the FBS, according to these details; those in plain type shall be treated as per the ebXML specification;

```

MessageHeader
  From
    PartyId
  To
    PartyId
  CPAId
  ConversationId
  Service
  Action
  MessageData
    MessageId
    Timestamp
    RefToMessageId
    TimeToLive
    QualityOfServiceInfo
  SequenceNumber
  Description
TraceHeaderList
  TraceHeader

```

```

Manifest
    Reference
        Schema
ErrorList
    Error
Signature

```

4.1. Services & Actions

The ebXML *Service* and *Action* elements will have specific names derived from the content of the aseXML header. It is incumbent on participating gateways to populate these fields according to these specifications. Failure to do so will render the ebXML message invalid, so while the message may be successfully transmitted, there will be no reason to assume that the receiver will be able to appropriately manage the aseXML payload.

Services and actions can be thought of as Classes and Methods in the Message Service Interface. Participants are free to implement these services and actions however they see fit, bearing in mind that these *Service* and *Action* names are the only mechanism by which specified processing of ebXML messages can be achieved.

It is by the use of these *Service* and *Action* names that appropriate interaction with the Message Service Interface is achieved.

In the event that an action is associated with the wrong service in an ebXML message, the receiving MSH will reject this ebXML message. Details about these mappings will be forthcoming when they are finalised. They are dependent on agreement on assigning priorities to Transaction groups.

4.1.1. Service element naming

The ebXML *MessageHeader* element is a composite element comprised of ten subordinate elements, one of which is the *Service* element.

When composing an ebXML message, where the message is to contain an aseXML document as payload

- The *Service* element has a type attribute which shall be set to type="fbs"
- Where the *Priority* element in the aseXML header is not present, the *Service* name will be *MediumPriorityAseXMLDocument*
- Where the *Priority* element in the aseXML header is High, the *Service* name will be *HighPriorityAseXMLDocument*
- Where the *Priority* element in the aseXML header is Medium, the *Service* name will be *MediumPriorityAseXMLDocument*
- Where the *Priority* element in the aseXML header is Low, the *Service* name will be *LowPriorityAseXMLDocument*

4.1.2.Action Naming

The ebXML MessageHeader element is a composite element comprised of ten subordinate elements, one of which is the Action element.

When composing an ebXML message, where the message is to contain an aseXML document as payload the Action name will be the same as the name in the TransactionGroup element in the aseXML document Header.

4.2. Reliable Messaging Parameter Settings

The parameters mshTimeAccuracy, retries, retryInterval, and persistDuration can be managed in either of two ways by a participant receiving an ebXML message.

1. They can be set according to the assertions in this specification.
2. The participant can parse the CPAId element which is a subordinate element of the ebXML message header element and extract the parameter values from that element, according to the methodology described in section 4.3.4 pertaining to the CPAId element.

4.2.1.mshTimeAccuracy parameter

The time accuracy of Message Service Handlers in the FBS must be managed to be accurate within 15 seconds. That implies the total time drift between any two participants should be no more than 30 seconds. If participants can deliver better time accuracy than this, they should do so. The time accuracy is expressed in mm:ss format. For example, a gateway with an accuracy of +- 5 seconds would be expressed in the CPAId element as

00:05

4.2.2.retries parameter

Number of Retries
2

This shall be expressed directly as the appropriate integer value in the CPAId element.

4.2.3.retryInterval parameter

Retry Interval
60 minutes

The retry interval is expressed as a duration in accordance with the XML Schema time duration data type – see <http://www.w3.org/TR/xmlschema-2/#duration> Here for example the retry interval in the `CPAId` element should be `PT60M`

4.2.4. `persistDuration` parameter

<code>persistDuration</code> in minutes
180

The `persistDuration` is expressed as a duration in accordance with the XML Schema time duration data type – see <http://www.w3.org/TR/xmlschema-2/#duration> Here for example the persist duration in the `CPAId` element should be `PT180M`

4.2.5. `TimeToLive` element

The `ebXML MessageHeader` element is a composite element comprised of ten subordinate elements, one of which is the `MessageData` element. The `MessageData` element is a composite element comprised of four subordinate elements, one of which is the `TimeToLive` element.

`TimeToLive` will be set by adding a certain number of minutes to the current time according to the priority, as per the following table

Priority	Time message is sent + duration
High	current time + 1 minute 30 seconds
Medium and Low	current time + 180 minutes

The `TimeToLive` element must be an XML schema time instant – see <http://www.w3.org/TR/xmlschema-2/#dateTime>. In the FBS all time instants will be expressed according to the ISO 8601 specification. An example of an acceptable expression of a time instant is

2002-03-01T14:23:35+10:00

See section 2.4.

4.3. ebXML Identifier elements

4.3.1. `PartyId` element

The content of this element is based on the GBO ID and the derivations for this are described in section 2.2. The `PartyId` values in the FBS are logical names that will be resolved to physical addresses in the FRC Hub. The complete list of current GBO IDs is available from ~~the Market Operator's website~~ [AEMO website](#).

These logical identifiers for participants will be subject to additions and deletions on a dynamic basis.

The `PartyId` element has a type attribute, which in the FBS shall be present, as follows

```
type="urn:frchub.net"
```

4.3.2. From element

The ebXML `MessageHeader` element is a composite element comprised of ten subordinate elements, one of which is the `From` element. The `From` element shall contain the `PartyId` element of the sending participant gateway.

4.3.3. To element

The ebXML `MessageHeader` element is a composite element comprised of ten subordinate elements, one of which is the `To` element. The `To` element shall contain the `PartyId` element of the intended recipient participant gateway.

4.3.4. CPAId element

In the FBS the content of this element must be constructed as follows.

It will be comprised of six components. They are, in order,

- From PartyId
- To PartyId
- mshTimeAccuracy
- retries
- retryInterval
- persistDuration

These values shall be separated by a single whitespace. An example of a `CPAId` in a message from AEMO's gateway to the FBS test gateway would be as follows:

```
AEMOTEST FBSTEST 00:15 2 PT60M PT180M
```

4.3.5. MessageId element

The ebXML `MessageHeader` element is a composite element comprised of ten subordinate elements, one of which is the `MessageData` element. The `MessageData` element is a composite element comprised of four subordinate elements, one of which is the `MessageId` element.

The sender of the ebXML message is required to populate this element with a `Message Id` that is unique to the `PartyId` that identifies the sending `Message Service Handler` gateway. In the FBS the content of this element must be constructed using the `From PartyId`, white space separator followed by an identifier unique to that gateway. For example:

```
AEMO 654323456
```


`From PartyId` is not required in the case of messages that are automatically generated by the participant's Message Service Handler (eg Message Acknowledgements, Error Messages, Pings and Pongs').

4.3.6. ConversationId element

The ebXML `MessageHeader` element is a composite element comprised of ten subordinate elements, one of which is the `ConversationId` element. In accordance with the *ebXML Message Service Specification v1.0* conversations that do implicitly exist within ebXML such as a Message and Acknowledgement require the response (Acknowledgement) to contain the `ConversationId` that was supplied in the request (Message). Such conversation pairs are:

Message and Acknowledgement

Ping and Pong

Message Status Request and Message Status Response

Error messages should contain the `ConversationId` of the missive they are reporting an error on if they are capable of determining it.

For Messages, this mandatory element shall be populated by combining the `From PartyId`, the `To PartyId` and the `MessageId`; whitespace separated. For Pings and Message Status Requests any identifier unique to the sending gateway is sufficient.

An example of a `ConversationId` in a Message from AEMO's visa test gateway to the FBS test gateway would be as follows:

```
AEMO FBSTEST AEMO 5432112345
```

This element is not used in the FBS to span multiple payload bearing messages.

4.3.7. SequenceNumber element

The ebXML `MessageHeader` element is a composite element comprised of ten subordinate elements, one of which is the `SequenceNumber` element. Currently the *FRC B2B Hub System Architecture* document asserts that this element is not used in the FBS. This has been the subject of review and currently there are no plans to use this element.

4.4. Routing through the FRC Hub

Two hubs are in operation. The first is the Pre-Production hub, which is available for testing and debugging purposes. The second is the production hub, which is used for production transactions.

- No messages that are for testing purposes will be routed through the production hub.

Routing messages through these hubs is achieved as follows.

4.4.1. **TraceHeaderList** Element

The `TraceHeaderList` element is a composite element made up of one or more `TraceHeader` elements. In the FBS there will be one `TraceHeader` element in outgoing messages, and two `TraceHeader` elements in incoming messages. The `TraceHeader` element contains information that enables an ebXML message to make a single hop. This implies for all participants that the outgoing `TraceHeader` element contains the information to get an ebXML message from MHS gateway to the FRC Hub.

It also implies for all participants that all received messages will have two `TraceHeader` elements in the `TraceHeaderList`. The first will be the `TraceHeader` element that applies to the sender to hub hop, and the second will be the hub to receiver hop.

4.4.2. **TraceHeader** element

The `TraceHeader` is a composite element comprised of four subordinate elements, `Sender`, `Receiver`, `Timestamp`, and `#wildcard`. The `#wildcard` element is not used. The use of the `TraceHeader` element will be as per the ebXML specification, in conjunction with the following criteria.

The `TraceHeader Receiver` element is a composite element comprising two subordinate elements. These elements are the `PartyId` and the `Location`. For all participants this `Receiver` element will refer to the FRC Pre-Production Hub or the production FRC Hub. Addressing is as follows:

4.4.2.1. **Routing through the FRC Pre-Production Hub**

Prior to the use of certificates, participants will need a username-password pair to connect. These are generated as part of the form based process of a participant registering their physical address with the FBS administration.

- Participants populate the `PartyId` element of the `Receiver` element with the FRC Hub `PartyId` and this is

RELAY

- During the testing phase, participants populate the `Location` element of the `Receiver` element with the FRC Pre-Production Hub. For HTTP this is

<http://preprod.frchub.net:5318/invoke/relay/inbound/>

When certificates are used this is

<https://preprod.frchub.net:5319/invoke/relay/inbound/>

4.4.2.2. **Routing through the production FRC Hub**

Participants populate the `PartyId` element of the `Receiver` element with the FRC Hub `PartyId` and this is

RELAY

- Participants populate the `Location` element of the `Receiver` element with the FRC Pre-Production Hub.

<https://www.frchub.net:5319/invoke/relay/inbound/>

4.5. Identifying payload data

In the FRC HUB, prior to routing a message to a recipient, the aseXML payload document will be parsed and determined to be schema valid or otherwise. In the event that it is schema invalid, the payload reference features of ebXML will be deployed and used in conjunction with the error handling described in section 4.6 of this document.

4.5.1. Manifest element.

The manifest element is a composite element consisting of one or more `Reference` elements. The manifest element is used as per the *ebXML Message Service Specification v1.0*.

4.5.2. Reference element.

The `Reference` element is comprised of a number of attributes and component elements as detailed in the *ebXML Message Service Specification v1.0*. The only attributes of the `Reference` element that are used in the FBS shall be populated as follows:

```
xlink:type="simple"
xlink:href="cid:aseXML"
```

It is important to note that the `xlink:href` attribute refers to the Content-Id of the payload. In the FBS all payloads are aseXML, hence a MIME part with a Content-Id of aseXML must be present in the payload.

4.5.3. Schema element

The Schema element is the only component element of the Reference element that is required in the FBS. This element has two attributes as shown in the following example.

```
location=
    "http://www.aemo.com.au/aseXML/schemas/r9/1.3/aseXML_r9.xsd"
version="r9"
```

4.6. ebXML Error reporting and handling.

The FRC HUB will employ the ebXML error reporting and handling as per the *ebXML Message Service Specification v1.0* with the following addition.

In the FRC HUB, prior to sending an ebXML message acknowledgement, a schema validation parse is applied to the aseXML payload. If the parse fails a "message

reporting the error” is sent. This is a message that contains an ebXML `ErrorList` element.

There are no custom error codes in the FRC HUB and the `codeContext` attribute of the `ErrorList` element will be the *ebXML Message Service Specification v1.0* default value.

4.6.1. `ErrorList` element.

In the event of the payload being aseXML schema invalid this element shall contain at least one `Error` element, which will be discussed shortly. As the severity in that error element will be “Error”, the highest severity attribute of the `ErrorList` element shall be “Error”, as per the specification. All other attributes shall be as per the specification.

4.6.2. `Error` element.

In the event of the payload being aseXML schema invalid, these attributes of this element shall be set as follows:

```
errorCode="OtherXML"
severity="Error"
location=
"//soap:Envelope/soap:Body/eb:Manifest/eb:Reference/eb:Schema"
```

The content of the `Error` element shall say at least:

```
aseXml schema validation failure on payload
```

If any additional text information about the schema validation failure is available, this should also be included in the content of the error element.

The remainder of the error element shall be as per the *ebXML Message Service Specification v1.0*

4.7. Signature element

The FBS employs the ebXML Signature handling as per the *ebXML Message Service Specification v1.0* with the following clarification.

The `SignedInfo` element, contained within the `Signature` element shall contain the recommended second `Reference` element that refers to the payload object. This `Reference` element is important in supporting non-repudiation. As per the *ebXML Message Service Specification v1.0* this element shall have a `URI` attribute that resolves to the payload object.

5. System Security

Note: The following Security architecture only applies to ebXML/aseXML messages routed via the HUB. Other message transport methods, as per Appendix C, may not use the certificate based security architecture discussed here.

5.1. Custom ports.

The FRC Hub will use custom ports as a defence against simple Denial Of Service attacks.

for HTTP/S the port will be 5319

for HTTP the port will be 5318. This port is for testing only and will only be available on the FRC Pre-Production Hub

Participants may nominate any port between 5318 and 5330 in the URLs they supply to the FBS administration. These URL's apply to the participant gateways.

5.2. Obtaining certificates

Obtaining X509 certificates for use with SSL and digital signatures in the FBS is achieved by submitting a Certificate-Signing-Request (CSR) via the FBS Administration to the FBS Certificate Authority (FBS-CA). Some participants will be using a gateway product that will generate such a CSR. Others may do it using publicly available tools such as Open-SSL.

When participants have generated their CSR it should be sent to the FBS Administration as an email attachment to the following address

fbsadmin@aemo.com.au

5.3. FRC Hub Security Services

In order to solve the “many to many” problem with regard to certificate distribution and revocation, participants in the FBS, the hub will provide security services. Participants will only need one certificate - that of the FRC Hub for SSL and digital signature services.

- Messages will be signed by the From party private key and be routed to the To party via the FRC Hub.
- The hub will verify this signature against the participant's certificate. The hub is the only repository of certificates issued by the associated FBS Certificate Authority (FBS-CA). Individual participants will not need certificates from other participants.
- The hub will then re-sign the message with the FRC Hub private key and forward the message to the To party. The To party then verifies the message signature against the FRC Hub certificate

- There will be no published CRL's. There will be no OCSP technology. Certificate generation and revocation will be handled between the co-located FBS-CA and the FRC Hub. This system will suffer zero propagation delay - for example in the event of notification of a compromised private key.

A motivation for using ebXML was for a technology that provided for a signed payload to provide for non-repudiation of receipt. Using the webMethods hub security services does not change the certainty of non-repudiation of receipt; it simply changes the procedures to be followed in the event of dispute resolution. The FBS Administration will describe these in detail in due course; but in short non-repudiation of receipt will be verifiable as follows:

In the event there is a dispute about an alleged difference in an aseXML payload document both parties will supply their copies of the aseXML payload document in question to the FBS Administration. If these documents do differ:

1. The sender will be asked to sign and send both documents using the same hash-code algorithm. The hash-codes that are generated will be checked against the hash-code and algorithm reference that is archived at the hub.
2. The FRC Hub will re-sign both documents against the hash-code algorithm reference that is archived at the hub and compare these hash-codes with the appropriate hash-code reference that is archived at the FRC hub.

The outcome of this process will reveal exactly what content was sent.

The ebXML Message Service Specification provides for multiple signatures on the payload to facilitate the sort of process described here, whilst providing the benefit of leaving the sending signature intact. Vendor tool support for this functionality is not yet present, so this methodology will not be used in the FBS.

5.4. SSL

The FRC Hub is capable of SSL connectivity in compliance with SSLv3 and TLSv1.0. TLS is based on SSLv3 [and is also referred to as SSLv3.1] and is an Internet standards track protocol:

<http://www.ietf.org/rfc/rfc2246.txt>

The certificates used in the FBS will not employ any extensions. Sometimes these certificates extensions are referred to as server certificates by certain vendors. Certificates without extensions are sometimes referred to as client certificates by certain vendors.

6. Appendix A – ebXML MSv1.0 FBS Reference Schema

As there is no online reference schema, the FBS will publish a reference schema for the *ebXML Message Service v1.0* for use within the FRC B2B System. If a more widely available schema becomes available, the FBS Administration may drop this reference.

Participants should note that the use of tools such as XMLSpy may report that schema's referenced within this schema are written to an old standard, and prompt to update. Future versions of this schema will resolve this issue.

This is the FBS Administration messageHeader.xsd version 0.1

```
<?xml version="1.0" encoding="UTF-8"?>
<schema
  targetNamespace="http://www.ebxml.org/namespaces/messageHeader"
  xmlns:xml="http://www.w3.org/XML/1998/namespace"
  xmlns:eb="http://www.ebxml.org/namespaces/messageHeader"
  xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns="http://www.w3.org/2000/10/XMLSchema" version="1.0">
  <import namespace="http://www.w3.org/2000/09/xmldsig#"
    schemaLocation="http://www.ebxml.org/project_teams/transport/xmldsig-
    core-schema.xsd"/>
  <import namespace="http://www.w3.org/1999/xlink"
    schemaLocation="http://www.ebxml.org/project_teams/transport/xlink.xs
    d"/>
  <import namespace="http://schemas.xmlsoap.org/soap/envelope/"
    schemaLocation="http://www.ebxml.org/project_teams/transport/envelope
    .xsd"/>
  <import namespace="http://www.w3.org/XML/1998/namespace"
    schemaLocation="http://www.ebxml.org/project_teams/transport/xml_lang
    .xsd"/>
  <!-- MANIFEST -->
  <element name="Manifest">
    <complexType>
      <sequence>
        <element ref="eb:Reference" maxOccurs="unbounded"/>
        <!-- <any namespace="##other" processContents="lax"
minOccurs="0" maxOccurs="unbounded"/> -->
      </sequence>
      <attribute ref="eb:id"/>
      <attribute ref="eb:version"/>
      <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
    </complexType>
  </element>
  <element name="Reference">
    <complexType>
      <sequence>
        <element ref="eb:Schema" minOccurs="0"
maxOccurs="unbounded"/>
        <element ref="eb:Description" minOccurs="0"
maxOccurs="unbounded"/>
      </sequence>
    </complexType>
  </element>
</schema>
```

```

        <!-- <any namespace="##other" processContents="lax"
minOccurs="0" maxOccurs="unbounded"/> -->
        </sequence>
        <attribute ref="eb:id"/>
        <attribute ref="xlink:type" use="fixed" value="simple"/>
        <attribute ref="xlink:href" use="required"/>
        <attribute ref="xlink:role"/>
    </complexType>
</element>
<element name="Schema">
    <complexType>
        <attribute name="location" type="uriReference"
use="required"/>
        <attribute name="version" type="eb:non-empty-string"/>
    </complexType>
</element>
<!-- MESSAGEHEADER -->
<element name="MessageHeader">
    <complexType>
        <sequence>
            <element ref="eb:From"/>
            <element ref="eb:To"/>
            <element ref="eb:CPAId"/>
            <element ref="eb:ConversationId"/>
            <element ref="eb:Service"/>
            <element ref="eb:Action"/>
            <element ref="eb:MessageData"/>
            <element ref="eb:QualityOfServiceInfo"
minOccurs="0"/>
            <element ref="eb:Description" minOccurs="0"
maxOccurs="unbounded"/>
            <element ref="eb:SequenceNumber" minOccurs="0"/>
        </sequence>
        <attribute ref="eb:id"/>
        <attribute ref="eb:version"/>
        <attribute ref="soap:mustUnderstand"/>
        <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
    </complexType>
</element>
<element name="CPAId" type="eb:non-empty-string"/>
<element name="ConversationId" type="eb:non-empty-string"/>
<element name="Service">
    <complexType>
        <simpleContent>
            <extension base="eb:non-empty-string">
                <attribute name="type" type="eb:non-empty-
string"/>
            </extension>
        </simpleContent>
    </complexType>
</element>
<element name="Action" type="eb:non-empty-string"/>
<element name="MessageData">
    <complexType>
        <sequence>
            <element ref="eb:MessageId"/>
            <element ref="eb:Timestamp"/>
            <element ref="eb:RefToMessageId" minOccurs="0"/>
            <element ref="eb:TimeToLive" minOccurs="0"/>

```



```

        </sequence>
      </complexType>
    </element>
    <element name="MessageId" type="eb:non-empty-string"/>
    <element name="TimeToLive" type="timeInstant"/>
    <element name="QualityOfServiceInfo">
      <complexType>
        <attribute name="deliverySemantics"
type="eb:deliverySemantics.type" use="default" value="BestEffort"/>
        <attribute name="messageOrderSemantics"
type="eb:messageOrderSemantics.type" use="default"
value="NotGuaranteed"/>
        <attribute name="deliveryReceiptRequested"
type="eb:signedUnsigned.type" use="default" value="None"/>
      </complexType>
    </element>
    <!-- TRACE HEADER LIST -->
    <element name="TraceHeaderList">
      <complexType>
        <sequence>
          <element ref="eb:TraceHeader" maxOccurs="unbounded"/>
        </sequence>
        <attribute ref="eb:id"/>
        <attribute ref="eb:version"/>
        <attribute ref="soap:mustUnderstand" use="required"/>
        <attribute ref="soap:actor" use="required"/>
        <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
      </complexType>
    </element>
    <element name="TraceHeader">
      <complexType>
        <sequence>
          <element ref="eb:Sender"/>
          <element ref="eb:Receiver"/>
          <element ref="eb:Timestamp"/>
          <any namespace="##other" processContents="lax"
minOccurs="0" maxOccurs="unbounded"/>
        </sequence>
        <attribute ref="eb:id"/>
      </complexType>
    </element>
    <element name="Sender" type="eb:senderReceiver.type"/>
    <element name="Receiver" type="eb:senderReceiver.type"/>
    <element name="SequenceNumber" type="positiveInteger"/>
    <!-- DELIVERY RECEIPT -->
    <element name="DeliveryReceipt">
      <complexType>
        <sequence>
          <element ref="eb:Timestamp"/>
          <element ref="ds:Reference" minOccurs="0"
maxOccurs="unbounded"/>
        </sequence>
        <attribute ref="eb:id"/>
        <attribute ref="eb:version"/>
        <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
        <!-- <attribute name="signed" type="boolean"/> -->
      </complexType>
    </element>

```

```

</element>
<!-- ACKNOWLEDGEMENT -->
<element name="Acknowledgment">
  <complexType>
    <sequence>
      <element ref="eb:Timestamp"/>
      <element ref="eb:From" minOccurs="0"/>
      <element ref="ds:Reference" minOccurs="0"
maxOccurs="unbounded"/>
    </sequence>
    <attribute ref="eb:id"/>
    <attribute ref="eb:version"/>
    <attribute ref="soap:mustUnderstand" use="required"/>
    <attribute ref="soap:actor" use="required"/>
    <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
  </complexType>
</element>
<!-- ERROR LIST -->
<element name="ErrorList">
  <complexType>
    <sequence>
      <element ref="eb:Error" maxOccurs="unbounded"/>
    </sequence>
    <attribute ref="eb:id"/>
    <attribute ref="eb:version"/>
    <attribute ref="soap:mustUnderstand" use="required"/>
    <attribute name="highestSeverity" type="eb:severity.type"
use="default" value="Warning"/>
    <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
  </complexType>
</element>
<element name="Error">
  <complexType>
    <attribute ref="eb:id"/>
    <attribute name="codeContext" type="uriReference"
use="required"/>
    <attribute name="errorCode" type="eb:non-empty-string"
use="required"/>
    <attribute name="severity" type="eb:severity.type"
use="default" value="Warning"/>
    <attribute name="location" type="eb:non-empty-string"/>
    <attribute ref="xml:lang"/>
  </complexType>
</element>
<!-- STATUS RESPONSE -->
<element name="StatusResponse">
  <complexType>
    <sequence>
      <element ref="eb:RefToMessageId"/>
      <element ref="eb:Timestamp" minOccurs="0"/>
    </sequence>
    <attribute ref="eb:id"/>
    <attribute ref="eb:version"/>
    <attribute name="messageStatus"
type="eb:messageStatus.type"/>

```

```

        <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
    </complexType>
</element>
<!-- STATUS REQUEST -->
<element name="StatusRequest">
    <complexType>
        <sequence>
            <element ref="eb:RefToMessageId"/>
        </sequence>
        <attribute ref="eb:id"/>
        <attribute ref="eb:version"/>
        <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
    </complexType>
</element>
<!-- VIA -->
<element name="Via">
    <complexType>
        <sequence>
            <element ref="eb:CPAId" minOccurs="0"/>
            <element ref="eb:Service" minOccurs="0"/>
            <element ref="eb:Action" minOccurs="0"/>
        </sequence>
        <attribute ref="eb:id"/>
        <attribute ref="eb:version"/>
        <attribute ref="soap:mustUnderstand" use="required"/>
        <attribute ref="soap:actor" use="required"/>
        <attribute name="syncReply" type="boolean"/>
        <attribute name="reliableMessagingMethod"
type="eb:rmm.type"/>
        <attribute name="ackRequested"
type="eb:signedUnsigned.type" use="default" value="None"/>
        <anyAttribute
namespace="http://www.w3.org/2000/10/XMLSchema-instance"
processContents="lax"/>
    </complexType>
</element>
<!-- COMMON TYPES -->
<complexType name="senderReceiver.type">
    <sequence>
        <element ref="eb:PartyId" maxOccurs="unbounded"/>
        <element name="Location" type="uriReference"/>
    </sequence>
</complexType>
<simpleType name="messageStatus.type">
    <restriction base="NMTOKEN">
        <enumeration value="Unauthorized"/>
        <enumeration value="NotRecognized"/>
        <enumeration value="Received"/>
        <enumeration value="Processed"/>
        <enumeration value="Forwarded"/>
    </restriction>
</simpleType>
<simpleType name="type.type">
    <restriction base="NMTOKEN">
        <enumeration value="DeliveryReceipt"/>
        <enumeration value="IntermediateAck"/>
    </restriction>

```

```

</simpleType>
<simpleType name="messageOrderSemantics.type">
  <restriction base="NMTOKEN">
    <enumeration value="Guaranteed"/>
    <enumeration value="NotGuaranteed"/>
  </restriction>
</simpleType>
<simpleType name="deliverySemantics.type">
  <restriction base="NMTOKEN">
    <enumeration value="OnceAndOnlyOnce"/>
    <enumeration value="BestEffort"/>
  </restriction>
</simpleType>
<simpleType name="non-empty-string">
  <restriction base="string">
    <minLength value="1"/>
  </restriction>
</simpleType>
<simpleType name="rmm.type">
  <restriction base="NMTOKEN">
    <enumeration value="ebXML"/>
    <enumeration value="Transport"/>
  </restriction>
</simpleType>
<simpleType name="signedUnsigned.type">
  <restriction base="NMTOKEN">
    <enumeration value="Signed"/>
    <enumeration value="Unsigned"/>
    <enumeration value="None"/>
  </restriction>
</simpleType>
<simpleType name="severity.type">
  <restriction base="NMTOKEN">
    <enumeration value="Warning"/>
    <enumeration value="Error"/>
  </restriction>
</simpleType>
<!-- COMMON ATTRIBUTES and ELEMENTS -->
<attribute name="id" type="ID" form="unqualified"/>
<attribute name="version" type="eb:non-empty-string" use="fixed"
value="1.0"/>
  <element name="PartyId">
    <complexType>
      <simpleContent>
        <extension base="eb:non-empty-string">
          <attribute name="type" type="eb:non-empty-
string"/>
        </extension>
      </simpleContent>
    </complexType>
  </element>
  <element name="To">
    <complexType>
      <sequence>
        <element ref="eb:PartyId" maxOccurs="unbounded"/>
      </sequence>
    </complexType>
  </element>
  <element name="From">
    <complexType>
      <sequence>

```

```
        <element ref="eb:PartyId" maxOccurs="unbounded"/>
      </sequence>
    </complexType>
  </element>
  <element name="Description">
    <complexType>
      <simpleContent>
        <extension base="eb:non-empty-string">
          <attribute ref="xml:lang"/>
        </extension>
      </simpleContent>
    </complexType>
  </element>
  <element name="RefToMessageId" type="eb:non-empty-string"/>
  <element name="Timestamp" type="timeInstant"/>
</schema>
```

7. Appendix B – sample ebXML message

The following sample is of an unsigned ebXML message with a CATS transaction group aseXML payload.

Message-ID: <422518658.1019188709812.JavaMail.chatton@VENCORP00231>

Content-ID: <ac1b3ce8f70dc61800003fdd>

```
<?xml version="1.0"?>
<soap:Envelope
  xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
</soap:Envelope>
```

-----=_Part_15_1170120589.1019188709621

Content-Type: application/xml
Content-Transfer-Encoding: binary
Content-ID: <aseXML>

```
<?xml version="1.0"?>
<ase:aseXML
</ase:aseXML>
```

-----=_Part_15_1170120589.1019188709621--

8. Appendix C - Additional Transport Information in Interface Control Document (ICD)

The reader is referred to the SAWA Interface Control Document (ICD) for additional transport treatment information on:

Type of Dataflow	Description
<i>AseXML</i>	An automated ebXML/aseXML transaction, routed via the Hub
<i>Bulk electronic file</i>	A csv file which has a defined structure, which can be automatically processed, but does not have aseXML wrapping. This file has a non-specific method of transport. It can be delivered by any means other than ebXML/aseXML or secure FTP.
<i>automated electronic file</i>	A csv file which has a defined structure, which can be automatically processed, but does not have aseXML wrapping. This file type will be transferred using secure ftp, as defined in ICD.
<i>Notice</i>	An unstructured instruction <i>in writing</i> , such as fax, physical letter, email etc. Minimum requirements for this type of communication are detailed in ICD
<i>Acknowledgement</i>	Dependent upon the method of transport for the initiating transaction, the acknowledgement of that transaction will be one of the following: <ul style="list-style-type: none"> An aseXML transaction acknowledgement, as defined in the aseXML guidelines document and outlined in ICD section 3.2.5 (defined) and 3.2.7 (outlined) An ftp csv acknowledgement, as defined in ICD section 3.4.2.5

Note: The System Security specification proposed in this document only applies to ebXML/aseXML messages routed via the HUB. Other message transport methods, as per this Appendix, may not use the Hub certificate based security architecture or certificates.

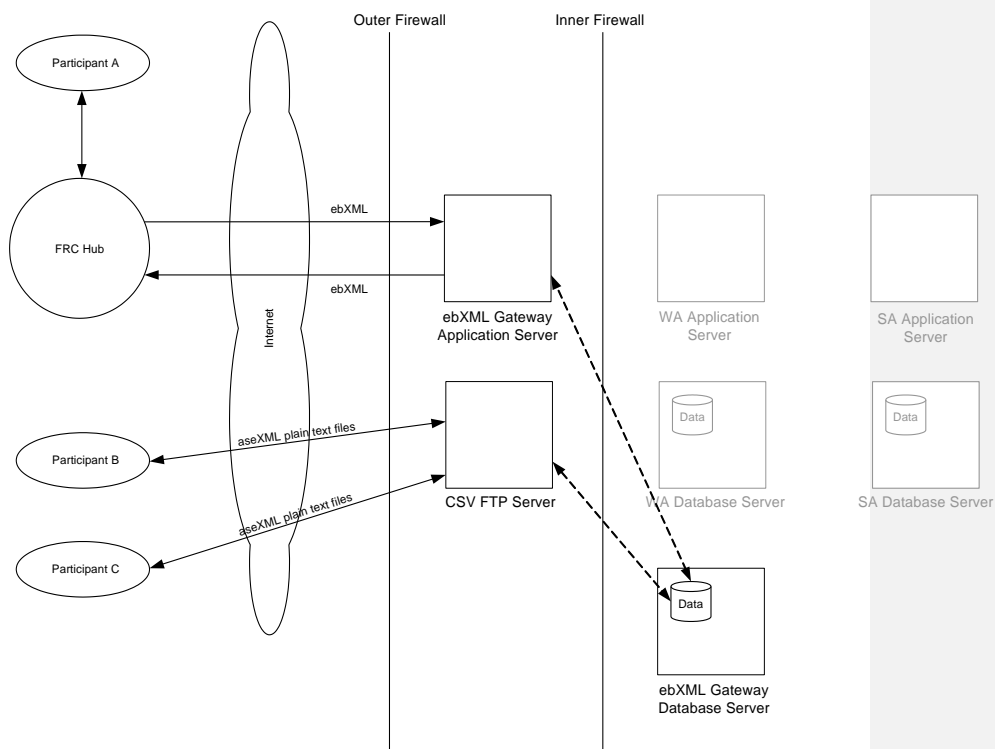
9. Appendix D – The Low Volume Interface

9.1. Overview

[AEMO will make available the following low-volume interface service for Users that have a market share of no more than 500 MIRNs.](#)

The low-volume interface provides participants who have a relatively small number of customers with an alternative mechanism for sending B2M and B2B transactions. By using this interface, these low-volume participants do not need to incur the costs associated with the implementation of an ebXML gateway.

The solution leverages the existing infrastructure and hardware in place for Gas Retail Market System (GRMS). The figure below shows how the solution works.



In the figure, Participant A is a participant with an ebXML gateway, whilst Participants B and C utilise the low-volume participant interface.

9.2. Restrictions for use of the Low Volume User Interface

The Low Volume Interface provides Participants with the ability to send and receive transactions via the FRC Hub without incurring the costs of implementing a full ebXML gateway. However, the interface is only suitable for low volumes of transactions:

- This interface is not designed to support high volumes of transactions. The performance of the low-volume interface would not be guaranteed at the levels expected of the ebXML gateway.
- The FTP side of the interface does not have the functionality of ebXML e.g. non-repudiation, security, guaranteed once-only delivery, retries and timeouts.
- ~~The Market Operator~~ [AEMO](#) will not check a transaction to ensure that it is valid. It will be passed on via an automated process. It is therefore crucial that the submitting participant validates their transactions against the correct version of the aseXML schema (using, for example, XMLSpy) prior to sending to the GRMS FTP server.

The residential market is, by nature, a volume market. Retailers who are competing in the mass residential market would be expected to have an ebXML gateway to the FRC Hub.

Use of the low volume interface is therefore suitable only for those organisations which are focused on commercial and industrial customers. The retailer may have some residential accounts and some customers with basic meters installed. However, based on ~~the Market Operator~~ [AEMO](#)'s assessment of its operational costs and numbers of transactions, a retailer using the Low Volume Interface should have a market share of no more than 500 MIRNs.

9.3. Operation of the Low Volume User Interface

The simplest way to describe the operation of the interface is through a series of examples.

Example 1: Low Volume Participant to Participant with ebXML gateway

Imagine Participant B wishes to send a transaction to Participant A. Participant B would connect to the GRMS FTP server and transfer a plain text aseXML file to their 'aseXML in' folder. This would have "Participant B" as the 'FROM' party and "Participant A" as the 'TO' party. The GRMS CSV server would poll this folder and transfer the file to the ebXML interface table (located on the ebXML Gateway Database Server).

Participant B would know that the file was being forwarded when the file is removed from the inbox by the GRMS.

The ebXML gateway outgoing transaction processor would then pick up the aseXML from the table, put it into an ebXML message and send it to the FRC Hub.

The FRC Hub would then forward the message to Participant A. Participant A would send a message acknowledgement back through the Hub to the GRMS Gateway. The message acknowledgement would not be forwarded back to participant B (however a transaction acknowledgement would be forwarded back – see below).

Example 2: Participant with ebXML gateway to Low Volume Participant

Participant A now wishes to send a transaction to participant B. This could be the transaction acknowledgement to the transaction described above, or a totally new transaction.

Participant A sends a message to the hub with the transaction (or TACK) they wish to send to Participant B in the payload. The payload will have 'Participant B' as the 'TO' GBO ID.

The Hub is configured such that the GBO IDs of the low volume participants are associated with the GRMS Gateway ID.

The Hub will now see that the 'TO' GBO ID is 'Participant B'. The Hub will look up the associated Gateway Identifier and see that the message should be forwarded to the GRMS Gateway.

The GRMS Gateway incoming transaction processor will then receive the message and reply with a message acknowledgement. It will examine the message, see that the 'TO' GBO ID is a low volume interface participant and place the aseXML transaction payload into the ebXML interface table.

A new process on the FTP server will poll the ebXML interface table for records of type 'FTP aseXML' and forward to Participant B's 'aseXML out' folder. Participant B would then poll the folder to obtain his plain text aseXML transaction from Participant A.

Example 3: Low Volume Participant to GRMS

This works in the same way as example 1, except that when the hub receives the message (From Participant B over the GRMS gateway), it would see that the recipient GBO ID was 'GRMS' and would send the message back through the GRMS gateway connection. The GRMS processes in the GRMS gateway would treat this as if it came from an external participant and process the message and transaction as normal.

Example 4: GRMS to Low Volume Participant

Again, the transaction would go out through the GRMS gateway to the hub, the hub would see that the GBO ID was 'Participant B' and forward the message back through the GRMS Gateway ID connection. The GRMS Gateway Incoming transaction processor would see this transaction was addressed to 'Participant B' and forward through the same process as described in Example 2 above.

Example 5: Low Volume Participant to Low Volume Participant

In this example, Participant B sends a transaction to Participant C. This situation would also be catered for, as the GBO IDs of both Participant B and Participant C will be registered against the GRMS Gateway ID in the AEMO hub. The message would be routed in the same manner as described in the above examples.

9.4. Key Benefits of this Solution

- Works for B2M and M2B
- Works for B2B in both directions between a gateway-enabled participant and a low-volume participant
- Works for B2B in both directions between two low-volume participants

- Messages (with aseXML payload) logged and stored in GRMS ebXML gateway
- Full ebXML benefits between GRMS and hub (and gateway enabled participants) e.g. non-repudiation, security, guaranteed once only delivery, retries and timeouts. Note this does not apply on the ftp server side of the interface.

9.5. Assumptions

- ~~The Market Operator~~ [AEMO](#) will not check a transaction to ensure that it is valid. It will be passed on via an automated process. It is therefore crucial that the low-volume participant validates their transactions against the correct version of the schema (using, for example, XMLSpy) prior to sending to the GRMS FTP server.
- This interface is by its nature very low volume and will not be designed to support high volumes of transactions. The performance of the low-volume interface would not be guaranteed at the levels expected of the ebXML gateway.
- The low-volume participant would have separate in and out folders for their aseXML transactions (as opposed to their BAR CSV folders), but could connect via the same connection. The participant would have a separate set of in and out boxes for each GBO ID.



FRC B2M-B2B Hub System Architecture

For the SA and WA Gas Retail Markets

Version: 3.45
Last Update: 01/01/2016 [tba](#)

Version History

Version	Date	Author(s)	Changes and Comments
0.1	30/9/03	D. Bone	Minor changes to VENCORP FRC B2B System Architecture document to change terminology in relation to REMCo and South Australia and Western Australia.
0.2	2/10/03	D Bone	Consistency checks and disclaimers.
1.0	3/10/03	C Madden	Consistency check
2.0	20/11/03	B. Eaves	Amendments following review with VENCORP
2.01	28/11/03	D. Bone	(a) Correcting a versioning issue. (b) Renamed document from FRC (B2M&B2B) Transaction and Messaging Architecture to FRC B2M-B2B Hub System Architecture for clarity and market familiarity. (c) Change cross references from FRC (B2M&B2B) Transaction and Messaging Specifications to FRC B2M-B2B Hub System Specifications for clarity and market familiarity.
3.0	9/3/04	B. Eaves	Minor amendments and clarifications to the introduction section.
3.1	1/10/10	T Sheridan	Updated to reflect the relevant Market Operator requirements following the transfer of REMCo's SA retail market operations to AEMO.
3.2	1/1/14	D. McGowan	IN004/12 – Redundant Provision and minor GIP and Spec Pack changes
3.3	17/05/2015	Allan Ng	IN023/14 – FRC Hub Upgrade Project
3.4	01/01/2016	D. Martin	Update to include WA only change: <ul style="list-style-type: none"> • C04/15S - Hansen Reference in the Specification Pack
3.5	TBA	D. McGowan	Update to include: WA <ul style="list-style-type: none"> • C02/16C – REMCo to AEMO transition changes. SA <ul style="list-style-type: none"> • IN029/16 – REMCo to AEMO transition

Preamble:

~~This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes:~~

~~(a) — Several terms have been changed to a general term where possible with a market specific definition; and~~

~~(b) — in the interests of keeping new terms and acronyms to a minimum, the original word has been italicised where possible to indicate that its definition again depends on its location. This approach is to promote interchange ability in these documents for the benefit of stakeholders from both states.~~

~~The terms and there relevant definitions are as follows:~~

Term:	South Australian Market Definition:	Western Australian Market Definition:
Market Operator	AEMO	REMCe
Retail Market Rules (RMR)	Retail Market Procedures (South Australia)	Retail Market Rules

~~For more information please contact the Market Operator in your state:~~

	AEMO (SA Office)	REMCe
Website:	http://www.aemo.com.au	http://www.remmco.net.au

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1. Introduction

1.1. Purpose

This document provides a comprehensive architectural overview of the transaction and messaging system based around the FRC Hub used in the South Australian and Western Australian Gas Retail Markets. The FRC Hub will be used for communication between participants and the Gas Retail Market System (GRMS) and also for B2B communications.

This document forms part of the [AEMO](#) Specification Pack that has been prepared by ~~the Market Operator~~ [AEMO](#) for the benefit of Market Participants in the South Australian and Western Australian Gas Markets.

Notes: While this document is intended to support the B2M and B2B requirements in both the SA and WA gas retail markets, references to the 'FRC B2B System' and 'FBS' have been left intact for consistency with existing Victorian documentation. As both B2M and B2B transactions will use the same architecture, the term 'B2B' has been used to apply to both transactions between participants and also transactions to the Market System.

Please refer to Appendix B for the ICD references for dataflow types supported in addition to those based on the AEMO FRC B2B documentation. eg secure ftp

1.2. Audience

The document has been written for business and IT personnel within industry participants in the South Australian and Western Australian Gas Retail Markets, as well as ~~the Market Operator~~ [AEMO](#)'s business and IT personnel. It is expected that the audience will have a familiarity with the overall business endeavour of Gas FRC in South Australia and Western Australia and with the artefacts listed in the Related Documents section of this document.

1.3. Related Documents

This document should be read in conjunction with the other documents contained within the [AEMO](#) Specification Pack as defined in the [AEMO](#) Specification Pack – Usage Guidelines.

1.3.1. Victoria

A number of documents were referred to in the Victorian version of this document. For further information about Victorian processes and specifications of the following 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 referred to in the Victorian version of this document. Latest versions of the Victorian documents can be obtained from ~~the Market Operator~~ [AEMO](#).

Ref	Artefact Name	Version	Responsible Party or Authors
1	Full Retail Gas Contestability B2B Infrastructure Report	1.0	Housley Communications
2	ebXML Message Service Specification	1.0	UN/CEFACT and OASIS
3	Participant Build Pack 1 (familiarity only)	Current version as published in the GIP	AEMO
4	Participant Build Pack 2 (familiarity only)	Current version as published in the GIP	AEMO
5	Participant Build Pack 3 Interface Definitions (familiarity only)	Current version as published in the GIP	AEMO
6	aseXML Standards and Guidelines	Current version as published in the GIP	ASWG

1.4. Definitions and Acronyms

aseXML	The XML framework recommendations adopted by the aseXML Standards Working Group to support Business-to-Business electronic data interchange.
AEMO	Australian Energy Market Operator
ASWG	The aseXML Standards Working Group
BAR	Balancing, Allocation and Reconciliation. Functionality associated with the SA/WA GRMS systems.
B2B	Refers to Business-to-Business transactions between participants in any business interest group. Some Gas B2B participants may also be participants in the National Electricity B2B group, as well as in Government procurement B2B initiatives, and commercial groupings.
B2M (and M2B)	“B2M” refers to transactions passed between a participant and the Market Operator AEMO , as opposed to transactions between two participants.
ebXML	A protocol neutral, XML based system for exchanging business messages. ebXML layers technologies on the emerging Web Services and SOAP technologies to provide collaboration, security, and reliability.
e-Commerce	“E-Commerce” is a general term, meaning commercial

	transaction processing using electronic means. It is most often used to refer to buying and selling products over the Internet. E-Commerce can be conducted over alternative networks, other than the Internet itself. B2B and B2M are a subset of e-Commerce.
FBS	FRC B2B System. The subject of this document, and the FRC B2M-B2B Hub System Specifications document.
FBS Administration	The party responsible for administering the FRC B2B System. Currently this is AEMO. This party will also administer the Hub for the SAWA B2M solution.
FBS Certificate Authority	This is the component that will administer X509v3 keys in the FBS. This includes distribution of keys to the participant PKI.
FRC	“FRC” refers to the government requirement for Full Retail Contestability.
FRC Hub	The FRC Hub is an XML Gateway that is nominated to act as a central transit point for all B2B and B2M transactions for participants within the various Gas Industries, including South Australian and Western Australian. The key characteristic of the Hub compared to a Gateway is that the hub receives and routes all messages, so there is additional emphasis on routing, throughput, availability and management tools.
GRMS	Gas Retail Market Service or System (depends on context)
Hub and Spoke	In a hub approach a transaction is first sent by an originating participant’s gateway to a hub; the hub then redirects the transaction to the target participant’s gateway. The alternative is a peer-to-peer approach.
Internet	The Internet is the aggregated system of interconnected networks based on the IP protocol standards.
IP	IP stands for Inter-networking Protocol. It is the network layer protocol used by most modern networks, including the Internet and MarketNet.
MarketNet	Private Wide Area Network (WAN) accessible only to registered market participants used to access AEMO market systems.
Message	Refers to a single XML envelope sent between two participant’s XML gateways, perhaps via a hub. A message can contain multiple transactions. A transaction exchange may require multiple messages.
MSH	Message Service Handler for ebXML gateways.
Participant	A “Participant” refers to any organization participating Retail Gas Market including the Market Operator AEMO .
RPS	The Reference Participant Site, against which participants will be able to test and certify aseXML schema implementation, and ebXML Message Service Handler interoperability.
SAWA	South Australia / Western Australia – two separate jurisdictions for the GRMS, each with its own Market Operator
SOAP	Simple Object Access Protocol. This is the fundamental packaging unit in the emerging Web Services technologies.
Transaction	A “Transaction” is different from “message” in the same way that a letter is different from an envelope. A message contains

	one or more transactions. A transaction originates in a participant's back-end systems, and its destination is another participant's back-end systems. The transaction is wrapped in an XML message to facilitate transport to its destination.
Transaction Exchange	"Transaction Exchange" refers to a group of several transactions that are exchanged by two participants over a period of time to effect, for example, initiating a customer transfer.
Protocols	Protocols are the various standards used to define how communications are handled at various levels. There are usually several protocols that might be used at each layer or sub-layer.
VGI	Victorian Gas Industry
XML Gateway	<p>An XML Gateway is a server or group of servers that has the following functions and tools:</p> <ul style="list-style-type: none"> The ability to translate transactions between back-end systems and XML. The ability to parse XML messages against an XML schema to identify if they are well formed. The ability to receive and send XML messages over a variety of standard transport protocols. Tools to define and apply business rules for routing, acknowledging and tracking XML transactions between participants and back-end applications. Development Tools to allow integration with a variety of back-end systems. <p>An XML Gateway may be a part of a larger, full function, e-commerce server farm.</p>

1.5. Outline

Chapter 2. *Architectural Overview* - Gives the overview and a definition of the FRC B2B System architecture. This will apply to both B2B and B2M transactions.

Chapter 3. *Application Layer* – This section describes functional and operational aspects of the aseXML Transaction Application. Topics include the obligations of the application, schema and schema validation, and interoperability. The section also describes the participant Communications Infrastructure, Public Key Infrastructure and the Message Service Interface, which will mediate between the Message Service Handler and these other applications / infrastructure-elements.

Chapter 4. *Message Layer* – The Message Service Handler (MSH) is the centrepiece of the messaging system in the FRC B2B System. The MSH is the implementation of the ebXML Message Service Specification. Packaging, routing, and delivery are dealt with in detail. The handler services, being Message Status Request, and MSH Ping are also described.

Chapter 5. *Transport Layer* – The Message Transport Interface section deals with the interface between the Message Service Handler and transport protocols to be

supported. Network infrastructure is dealt with; topics here are the system topology, gateways, the hub, and expected network traffic.

Chapter 6. *Security* – Security issues are descriptively treated, an emphasis here is to give participants an understandable treatment of the issues involved as well as the expected implementation detail, and participant requirements. Details, which would themselves compromise the security approach, have been excluded. The three sections are Key Management, Encryption, and Digital Signature.

2. Architectural Overview

2.1. Design Outline

The recommendations of the Housley report for the Victorian Gas Industry set the majority of the parameters that frame the design of the FRC B2B System (FBS). This system is comprised of four types of components

- The FRC Hub
- The FBS Certificate Authority
- The FBS Test and Certification Gateway
- Multiple Participant FBS Gateways

The system relationships are shown in Figure 1.

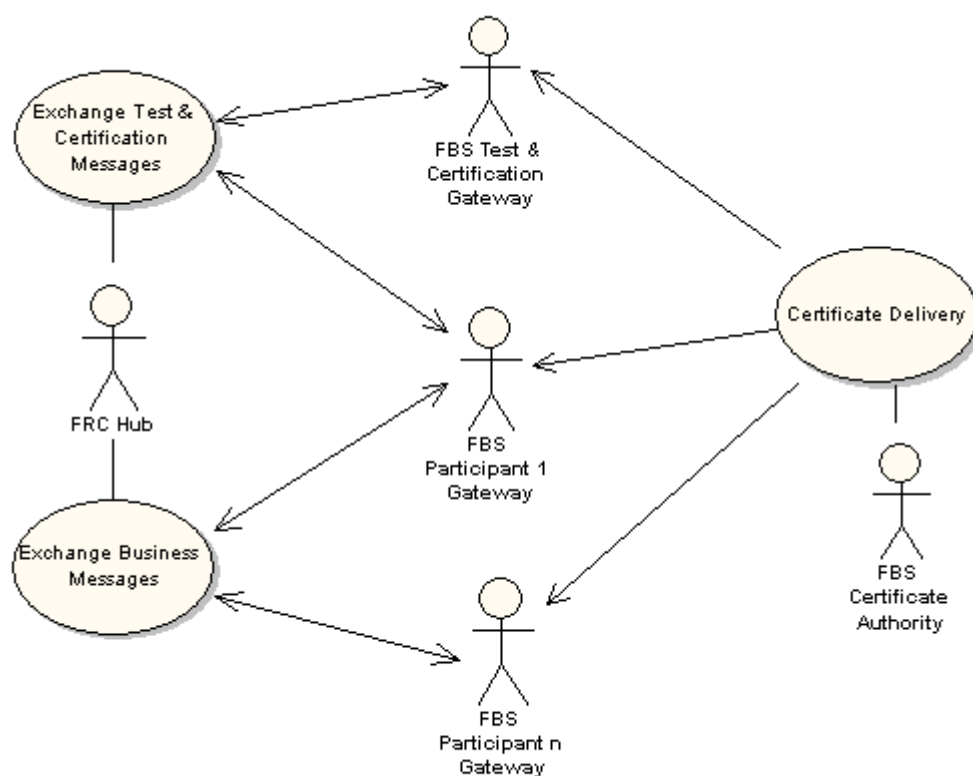


Figure 2.1. FRC B2B System

VENCorp (now AEMO) originally designed and developed the FRC B2B System, which comprises of the design and delivery of the FRC hub, the FBS Certificate Authority, the FBS Test and Certification Gateway and the provision of FBS Gateway protocols, in the form of the build packs, to the participants.

Structural details that need to be noted are:

2.1.1.Messaging

Message handling is to be implemented using ebXML envelopes. FBS Gateways will deploy a complying ebXML Message Service Handler (MSH)

2.1.2.Topology

The FRC B2B System specifies a hub-and-spoke architecture. The participants are responsible for developing and maintaining their own FBS Gateways.

2.1.3.Transport Protocol

The transport protocol supported is HTTP.

2.1.4.Encryption

Transport layer encryption using X509v3 certificates with SSL will provide data security. The FBS Certificate Authority will issue X509v3 certificates for encryption/decryption.

2.1.5.Authentication and Non-Repudiation

Authentication and Non-Repudiation of Receipt will be established by complying with ebXML signed reliable delivery with signed acknowledgement. The signature will apply to the ebXML payload, using X509v3 certificates. The FBS Certificate Authority will issue certificates for signing and verifying.

2.1.6.Networks

(WA Only) The FRC B2B System will be configured to accept messages from the Internet, and from the MarketNet Network. Participants may only use these two networks.

(SA Only) The FRC B2B System will be configured to accept messages from the Internet, and from the Hansen's Network. Participants may only use these two networks.

2.2. Component Layers

The FRC B2B System, as it applies to FBS Gateways, is described in terms of implementation in component layers. These layers are logical components; implementation details are the responsibility of the participants.

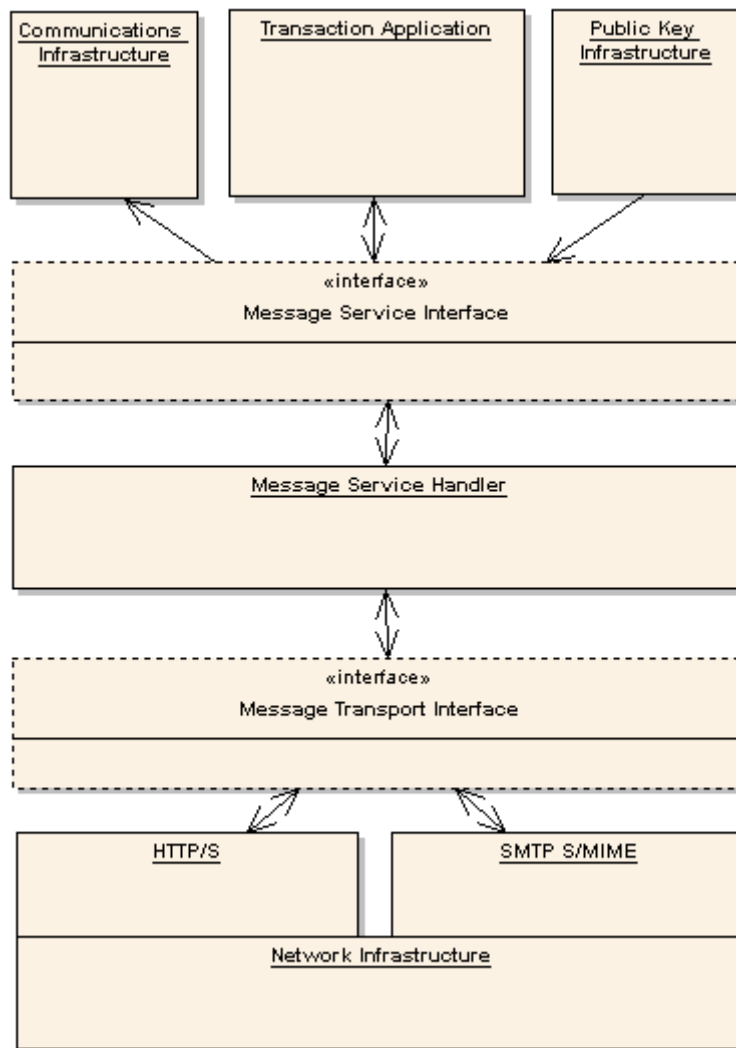


Figure 2.2. Logical Component View

2.3. Communication methodology

A most significant feature of the architecture is the functional separation of transactions and messages.

- Transactions are conducted on the basis of a set of industry rules encapsulated in the aseXML schema and expressed in aseXML documents. They will be managed by an aseXML transaction application.
- Messages will be managed by a Message Service Handler and will either
 - Contain aseXML documents (either transactions or transaction acknowledgements) as their payload, or
 - Be message acknowledgements of a message with such a payload.

Messages will conform to the ebXML standard, and will use the features provided within ebXML to provide security and non-repudiation.

2.3.1. Signals and Responses

2.3.1.1. **Message Acknowledgements**

In the FBS an ebXML message receiver will send a signed ebXML Message Acknowledgement as a signal to indicate that all the following conditions have been met:

1. A signed ebXML message with a payload has been received from a known source.
2. That the payload signature is valid.
3. That the payload is a well formed and schema valid aseXML document.
4. Message Acknowledgments must be received within time constraints. These constraints are defined in Section 2.3 of the *FBS B2M-B2B Hub System Specifications* document.
5. The time by which the acknowledgement should be received is referred to as **t1**

2.3.1.2. **Transaction Acknowledgements**

In the FBS an aseXML application will send a Transaction Acknowledgement as a signal to indicate that the following about the aseXML document:

1. The transaction was part of a valid XML document.
2. The transaction has passed business rule validity checks and has been accepted for business processing.
3. The receiver has taken full responsibility for the transaction even though further work to provide a Transaction Response may be ongoing.
4. The time by which High Priority Services should provide a Transaction Acknowledgement is governed by strict constraints. These constraints are discussed here and are defined in Section 2.3 of the *FBS B2M-B2B Hub System Specifications* document.
5. The time by which the acknowledgement should be received is referred to as **t2**.

2.3.1.3. **Transaction Responses**

The conditions that govern the generation of a Transaction Response are defined in the *Retail Market [RuleProcedures](#)*.

- The time by which the Transaction Response should be received is referred to as **t3**

2.3.2. **Message Exchange Scenarios**

These scenarios show an abstraction of the ebXML reliable messaging process. This process is discussed in detail in section 4.5 of this document, and the discussion there describes the role of the hub in this process. The scenarios here deal at a high level with interchanges between participants.

The figure below depicts a successful message exchange scenario. A message may carry a transaction or a transaction acknowledgment.

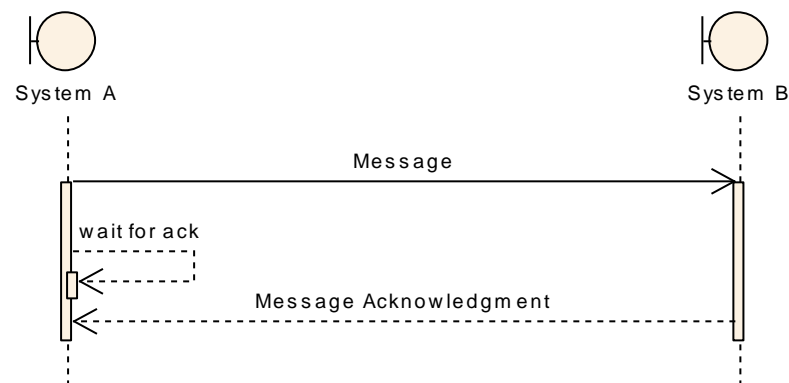


Figure 2.3.2.1. Successful Message Exchange Sequence Diagram

Message delivery may fail in several ways. One scenario occurs for example, if the message has a payload that does not satisfy the signature that has been applied to it. On this ground the recipient of the message rejects it and issues a message in error message.

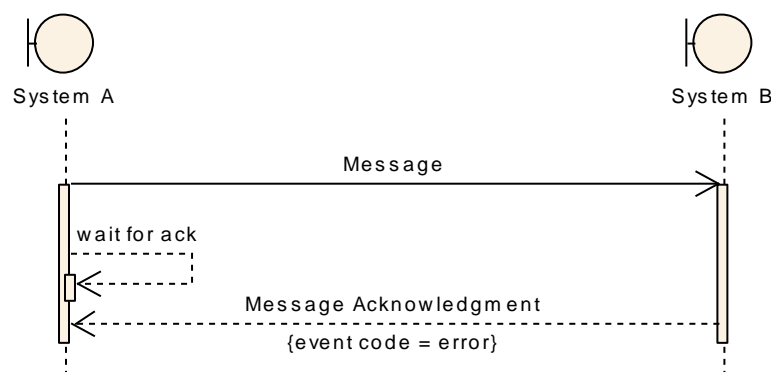


Figure 2.3.2.2. Failed Message Exchange Sequence Diagram

Another delivery failure scenario may be caused by the fact that a message, or its acknowledgement has been lost. A message acknowledgement hasn't arrived within predetermined time interval. The message originator (System A) will timeout and will either retry sending the message again or inform the System A about a communications failure. The detail as to how the FBS deals with these circumstances is described in section 4.5.

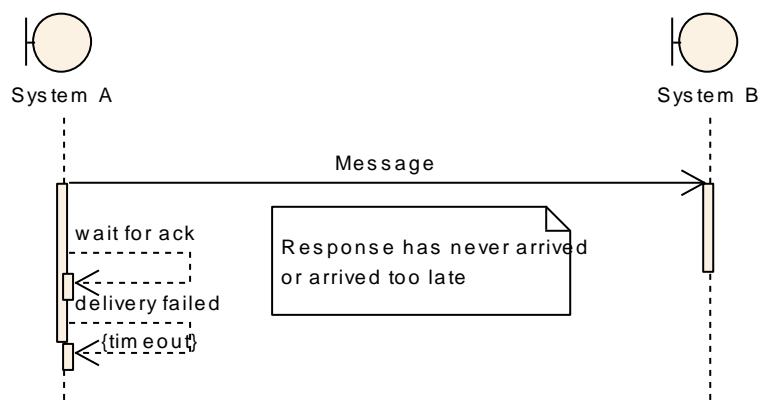


Figure 2.3.2.3. Lost Message Acknowledgment Sequence Diagram

2.3.3. Transaction Exchange Scenario

The transaction exchange process is an application level process. Transactions are described in an aseXML document; this document is carried as the payload of an ebXML message.

The figure below shows an example of a successful transaction exchange scenario. A transaction, for example a Customer Transfer Request, is sent to ~~the Market Operator~~ AEMO. ~~The Market Operator~~ AEMO acknowledges receipt of the transaction. Following some internal processing, ~~the Market Operator~~ AEMO issues a transaction to that Participant and this transaction is also duly acknowledged.

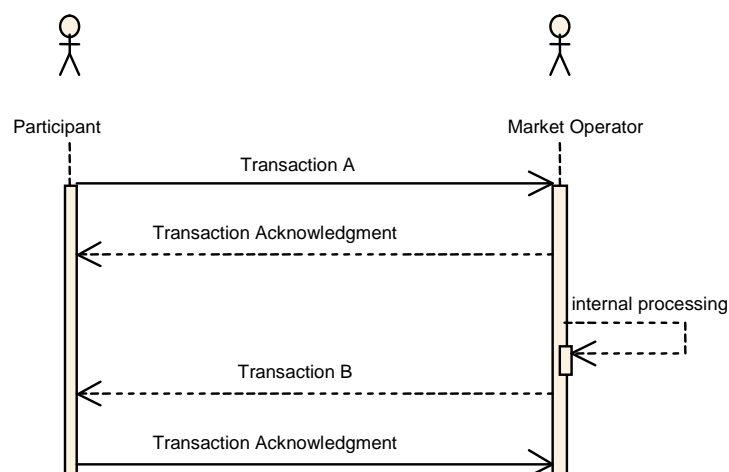


Figure 2.3.3.1 Transaction Exchange Sequence Diagram

2.4. Timing Considerations for Transaction Priorities

The FBS has a variety of high-level performance requirements with respect to time. The first decomposition of these requires inspection of the Transaction Cycle latencies, and each step in the Transaction Cycle decomposes further into a complete Message Cycle. This chapter works from the bottom up, dealing with the Message Cycle then the Transaction Cycle.

Transaction priorities and their related time constraints are an aseXML application level consideration. These timing considerations are then superimposed on the ebXML reliable messaging system. The reliable messaging system has its own set of timing parameters; however it is important to note that these are independent of aseXML Transaction performance requirements.

2.4.1. Message Cycle Latencies

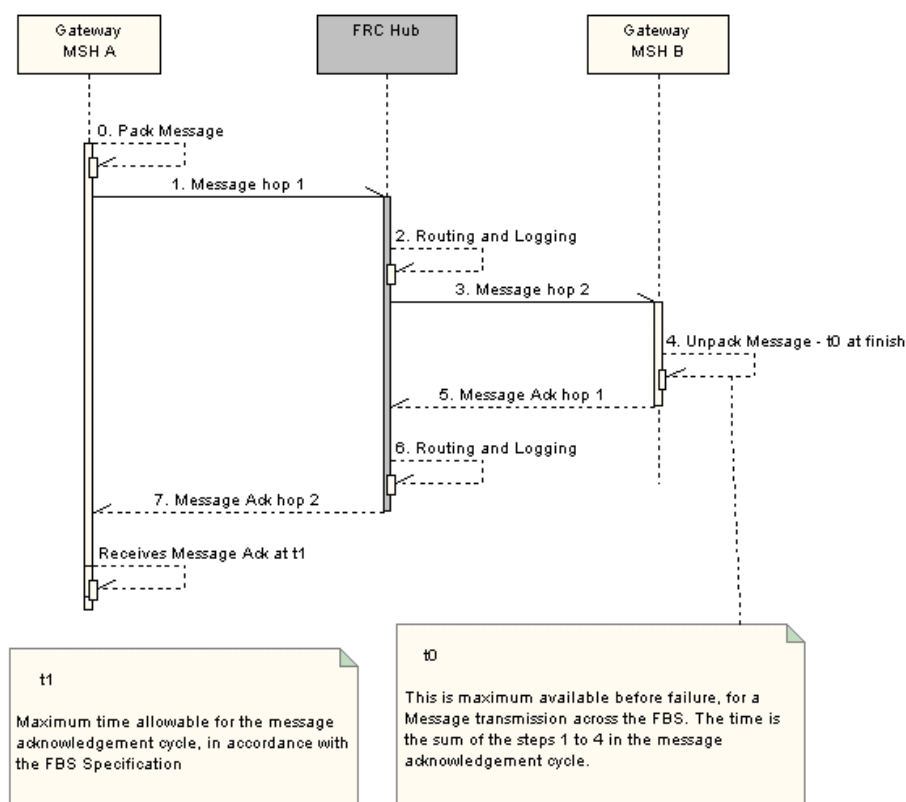


Figure 2.4.1.1 Timing steps in the Message cycle

Expected time latencies that apply to steps 1 through 7 in figure 2.4.1.1 are detailed in the following table

	step	Transmission latencies			Nominal failure points	
		99% < t	0.9% < t	0.1% > t	medium and low priority	high priority
	0					
	1	10	180	360	360	10
	2	2	30	40	40	10
	3	10	180	360	360	10
	4	6	180	360	360	30
	5	5	10	20	20	10
	6	2	10	20	20	10
	7	5	10	20	20	10
Single cycle		40	600	1180	1180	90
Attempts					3	1
Cycle total					3540	90
Time t0					3480	60
Time t1					3600	120

1. All times in this table are in seconds.
2. The step column refers to the steps in figure 2.4.1.1
3. The Transmission latencies columns refer to a % of transactions against a time interval 't'. In the cases of the 99% and 0.9% columns, the time refers to the maximum time 't' by which the respective steps are expected to be complete, while in the case of the 0.1% column the expectation is that the time taken will be greater than time 't'.
4. The nominal failure points are broken into two categories – those for medium and low priority messages, and those for high priority messages. It is expected that high priority messages will be around 1 KB in size, whereas low and medium priority messages may be up to three orders of magnitude larger in size.
5. The Single Cycle row refers to the maximum time expectation for a single attempt within the messaging cycle. The ebXML reliable messaging protocol provides for repeat attempts.
6. The Attempts row refers to the maximum number of times a message can be sent. The number of retries is the number of attempts minus 1.
7. The Cycle Total is the total duration allowing for all attempts.
8. At the end of step 4 in the message cycle, at most t0 has elapsed before the message contents have been handed over to the application
9. Time t1 is the maximum time allowable for the message and acknowledgement cycle to be completed.

2.4.2. Transaction and Response Cycle Latencies

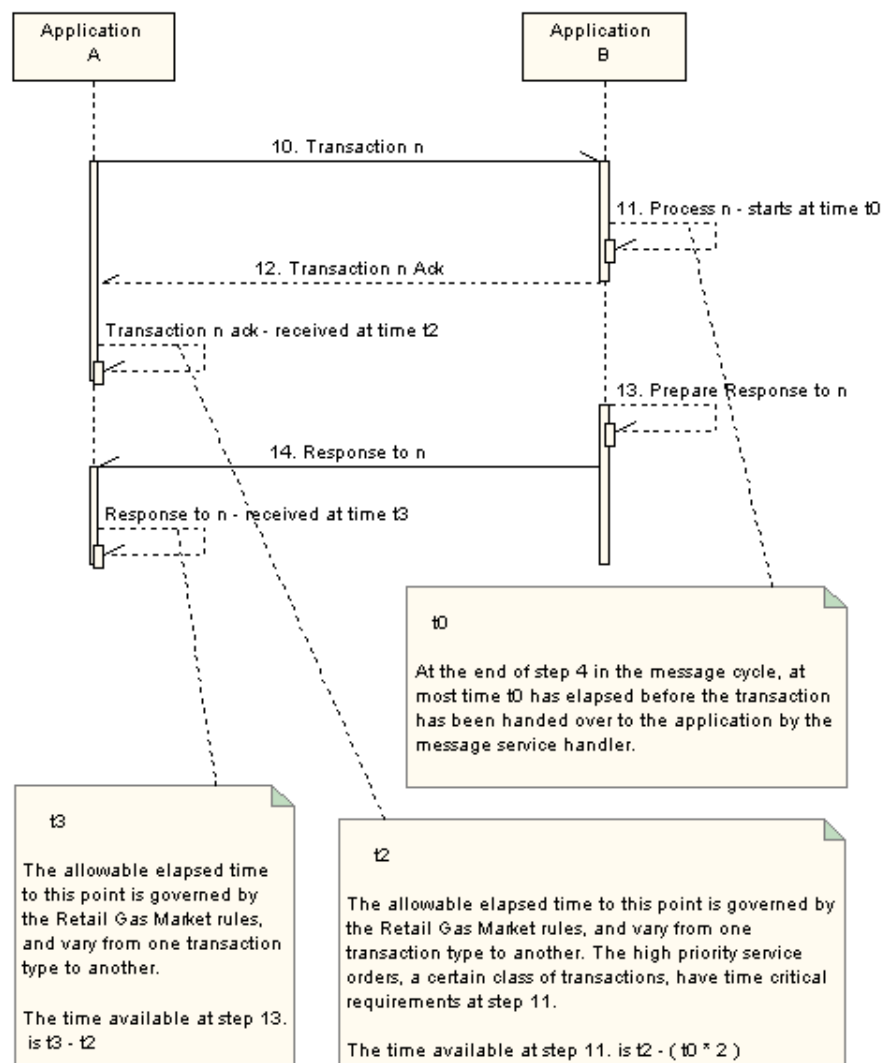


Figure 2.4.2.1 Timing steps in the Transaction and Response Cycles

1. The maximum time for completion of each of steps 10, 12, and 14 = time t_0 .
2. Time available at step 11 = $t_2 - (t_0 * 2)$
3. Time available at step 13 = $t_3 - t_2$

2.4.3. Time Definitions:

1. Allowable time drift on Message Service Handlers is ± 15 seconds, hence maximum time error will be 30 seconds.
2. **t0** is the maximum time duration before transaction processing can begin.
 For high priority messages there are no retries counted, and message acknowledgement times are not included

$$t0 = \text{sum(steps 1 to 4)}$$
 For other medium and low priority messages $t0 = t1$
3. **t1** is the maximum time duration before message acknowledgment receipt
 The t1 times are defined in Section 2.3 of the *FRC B2M-B2B Hub System Specifications*
4. **t2** is the maximum time duration before transaction acknowledgement receipt
 The high priority t2 time is defined in Section 2.3 of the *FRC B2M-B2B Hub System Specifications*
 All other **t2** times are governed by the *Retail Market RuleProcedures* and will be policed by audit.
5. **t3** is the maximum time duration before a transaction response is received.
 The t3 times are governed by the *Retail Market RuleProcedures* and will be policed by audit.

2.4.4.Critical Time Requirements

High priority service orders impose some very specific maximum-duration processing times. Specifically for participants these relate to the times available at step 4 in the Message Cycle, and step 11 in the Transaction Cycle.

There is a specific detailed analysis of these times in Section 2.3.2 of the *FRC B2M-B2B Hub System Specifications*

It is important to note there also must be a fallback mechanism for high priority service orders.

3. Application Layer

3.1. Transaction Application

Transactions are handled in the FBS Gateway at an application level. Transactions are expressed in aseXML. The aseXML application is not responsible for transport, routing and packaging. The applications will interact with back end systems at participant sites, and hence will need to run on disparate hardware and software platforms. Participants are responsible for the development and deployment of their own aseXML application. There will be an ongoing need for maintenance and compliance with aseXML as it evolves.

3.1.1. aseXML Document Format

An aseXML document must contain a Header that identifies the document, its originator and the destination. The document may carry either transactions or acknowledgments.

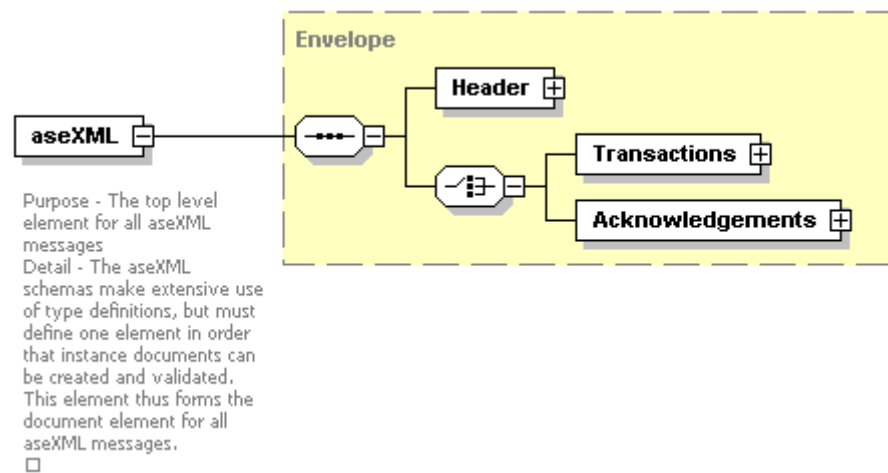


Figure 3.1.1. Top Level Format of all aseXML documents

3.1.2. aseXML Header Format

All the guidelines pertaining to the aseXML headers established in the *aseXML Standards and Guidelines* document will be adhered to. This information contained in the header is needed both by the aseXML Transaction Application and by the Message Service Handler header processor for addressing the ebXML message. The aseXML Header structure is shown in figure 3.1.2.

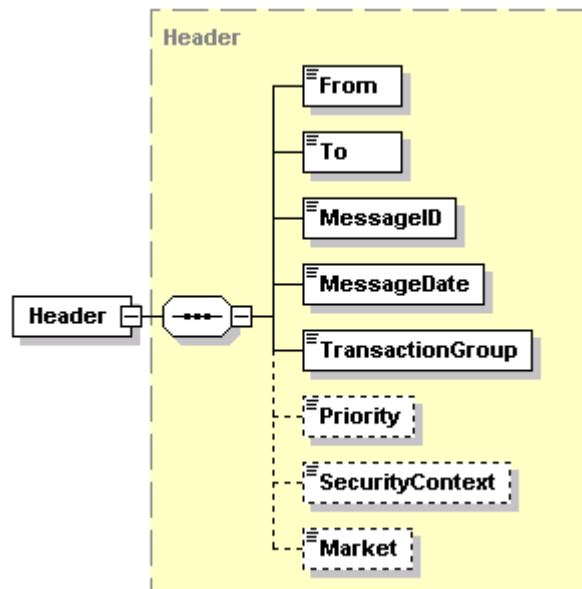


Figure 3.1.2. aseXML Header Element Format

3.1.3. aseXML Transaction Format

One or more transactions can be encapsulated within a single Message.

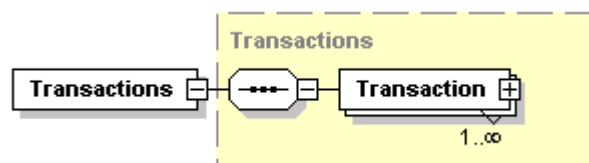


Figure 3.1.3.1. aseXML Transactions Element Format

Here an individual transaction can be present according to the types in the following figure.

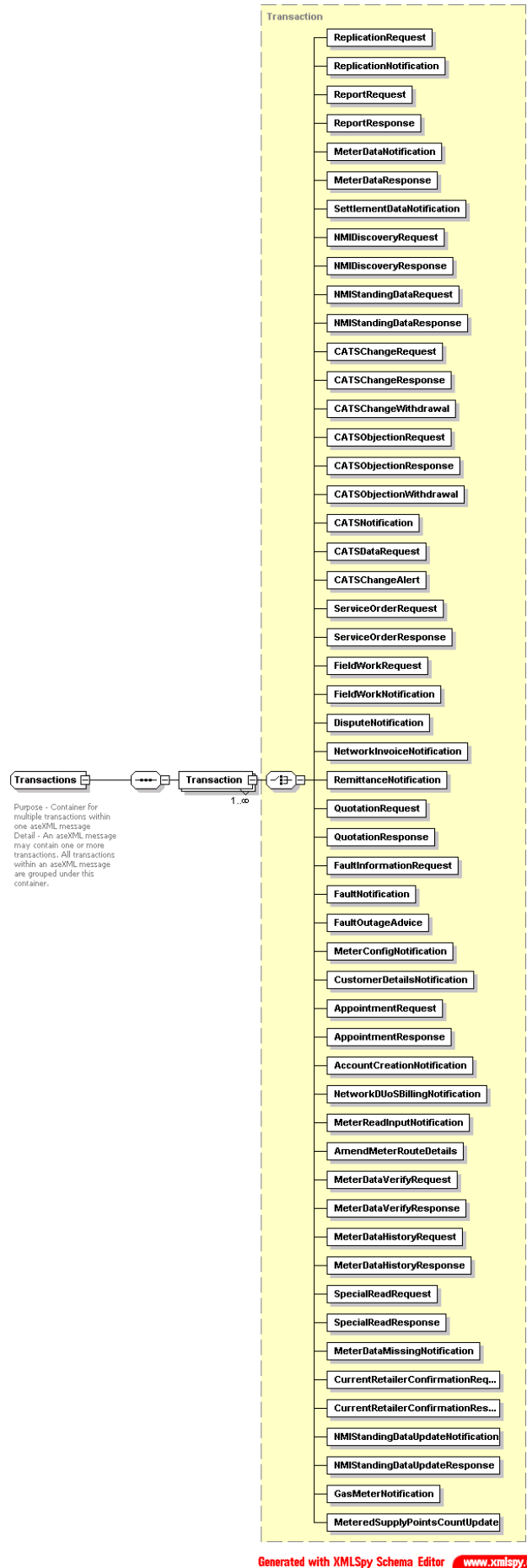


Figure 3.1.3.2. aseXML Transaction Element Types

3.1.4. aseXML Acknowledgment Format

An individual message may carry any number of transaction acknowledgments. The part of the aseXML protocol that will not be used is the aseXML Message Acknowledgement. There will be no aseXML Message Acknowledgement in the FBS.

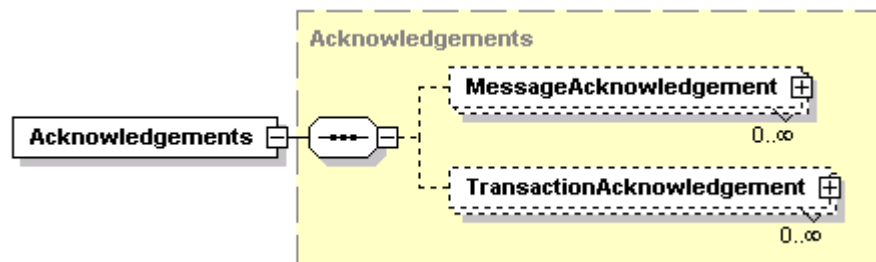


Figure 3.1.4.1. aseXML Acknowledgments Element Format

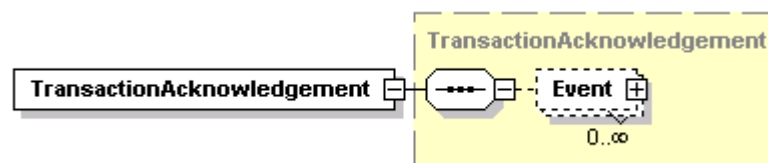


Figure 3.1.4.2. Transaction Acknowledgment Format

Event codes are those provided for by aseXML and are described in *Participant Build Pack 2*.

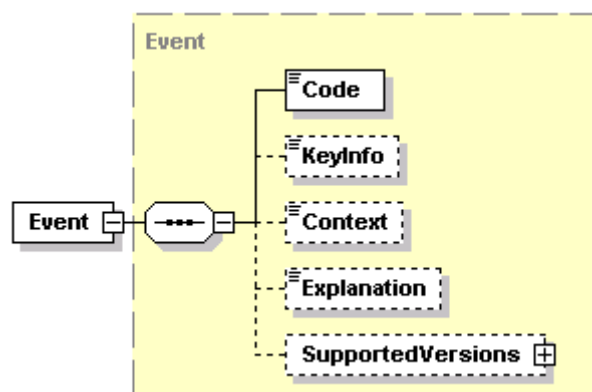


Figure 3.1.4.3. aseXML Event Element Format

Supported Versions element is made of at least one valid supported version element.

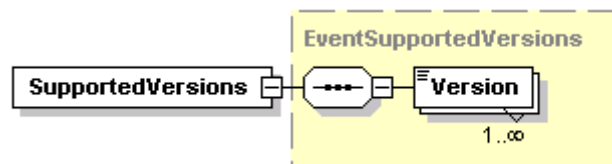


Figure 3.1.4.4. aseXML Supported Versions Element Format

3.1.5. Transaction Obligations

- A participant receiving a transaction is obliged to respond with an aseXML transaction acknowledgement. This standard is established by the *aseXML Standards and Guidelines* document.
- A participant receiving a suspected duplicate transaction, based on Transaction ID, is obliged to respond in accordance with the rules for handling duplicate transactions in the *aseXML Standards and Guidelines* document.
- Transaction ordering remains a Transaction Application problem. Ordering is not managed by ebXML Message Service Handlers.
- Multiple transactions may be grouped into a single aseXML document but when this is done the transactions all must be in the same transaction group.
- The business rules implied by the aseXML schema are the subject of a joint industry working-group, the aseXML Standards Working Group (ASWG). Conformance to those rules is expected of the Transaction Application.

3.1.6. Schema Development

The aseXML schema is under the control of the ASWG. This group or its successor will mandate the schema that describes the creation of valid aseXML documents.

3.1.7. Interoperability

The FBS administration will provide a reference participant site – the FBS Certification Gateway, against which participants can certify that their aseXML documents conform to the schema and are valid and interoperable. This site will be addressable using its participant Id, which is stated in Section 4.3.1 of the *FRC B2M-B2B Hub System Specifications* document. This Id will conform with, and be used in the same fashion, as other participant Id's.

3.2. External Connectivity

In addition to the interface with the aseXML Transaction Application, participant systems will need components that provide communications infrastructure, and public key infrastructure. The level of sophistication of this infrastructure is the responsibility of the individual participants.

3.2.1. Communications Infrastructure

Communications infrastructure is required in the participant gateway for the delivery of errors and alerts. This may be as simple as error logs, or automated email alerts; or it may be part of a much larger enterprise messaging-infrastructure.

3.2.2. Public Key Infrastructure

Public Key Infrastructure requirements for the FBS are modest and could be managed by a system operator copying files from one location to another; however it is likely that participant enterprises have deployed, or plan to deploy, enterprise wide PKI solutions.

The FBS Certificate Authority will interoperate with the participant PKI solution, which in turn should interoperate with the Message Service Handler.

3.3. Message Service Interface

The message service interface is the mechanism by which the Message Service Handler interacts with other components in the participant system. These interfaces may be in the form of API's or GUI's.

The major roles it will need to play are:

3.3.1. Document management

Mediate the transmission of aseXML documents to and from the Message Service Handler to the Transaction Application including the formatting of ebXML headers from aseXML documents. The definitive mappings for this process are defined in Section 4 of the *FRC B2M-B2B Hub System Specifications* document.

3.3.2. Communications Infrastructure Interface

Participants may find it useful to have their Message Service Interface interact directly with existing communications applications or infrastructure. The need for this will be driven by errors and alerts raised both by their own gateway deployment, and by error and alerts reported to their Message Service Handler by the hub MSH, or by other participant MSH's.

Standard Service and Action names will be defined. Service names and Action mappings are described in Section 4.1 of the *FRC B2M-B2B Hub System Specifications* document.

3.3.3. Public Key Infrastructure Interface

The participant public key infrastructure will need to be accessible and interoperable with the Message Service Handler.

4. Message Layer

4.1. Message Service Handler

The aspects of ebXML that have led to us adopting the Housley recommendation for it as the FRC B2B Transport Routing and Packaging (TRP) solution is that it delivers a system that will put the Message Service Handling within appropriate messaging infrastructure. Key elements of this infrastructure are:

- Message level ping service
- Message status request
- Reliable messaging implementation
- XMLDSIG signing for authentication and non-repudiation of receipt.

This end-to-end functionality could not easily be achieved using aseXML alone. To do this would mean the management boundaries for TRP between the gateway and application would become substantially blurred. Considerable custom TRP software would need to be written by participants for the Transaction Application, and substantial additional work would be needed from aseXML Working Group (ASWG). Furthermore the ongoing maintenance of the TRP standard and the infrastructure that supports it would be a perpetual R&D problem for the ASWG.

There are commercially available tools that implement the ebXML messaging service. AEMO strongly recommends that participant organisations make use of such tools.

4.2. ebXML Message Service Specification

The ebXML Message Service Specification is one of a series of ebXML specifications produced by OASIS UN/CEFACT. The complete set of specifications is available at <http://www.ebxml.org>. The set of specifications enables a modular, complete electronic business framework.

The *ebXML Message Service Specification v 1.0* is the only piece of the ebXML framework we will be deploying in this version of the Hub. In adopting ebXML it means the FBS will be able to move to establishing a full ebXML Web Services framework when this becomes appropriate, without participants needing to replace existing infrastructure.

The ebXML Message Service Specification focuses on defining a communications-protocol neutral method for exchanging the electronic business messages. It defines specific enveloping constructs that support reliable and secure delivery of business information.

The specification defines a flexible enveloping technique that permits ebXML-compliant messages to contain payloads of any format type. This implies maximum flexibility both for participants who wish to use their gateway for other purposes, and for the extensibility of the FBS.

Participant Message Service Handlers will be required to conform to *ebXML Message Service Specification v 1.0*, according to the configuration descriptions herein and the specifications in the *FRC B2M-B2B Hub System Specifications* document.

4.3. Packaging

An ebXML Message is a communication protocol independent MIME/Multipart message envelope, structured in compliance with the SOAP Messages with Attachments [SOAPATTACH] specification, referred to as a Message Package.

There are two logical MIME parts within the Message Package:

- A MIME part, referred to as the Header Container, containing one SOAP 1.1 compliant message. This XML document is referred to here as a *SOAP Message*.
- Zero or more MIME parts, referred to as Payload Containers, containing application level payloads.

The SOAP Message is an XML document that consists of the SOAP Envelope element. This is the root element of the XML document representing the SOAP Message. The SOAP Envelope element consists of the following:

1. One SOAP Header element. This is a generic mechanism for adding features to a SOAP Message, including ebXML specific header elements.
2. One SOAP Body element. This is a container for message service handler control data and information related to the payload parts of the message.

Carrying ebXML headers in *SOAP Messages* does not mean that ebXML overrides the existing semantics of SOAP, but rather that the semantics of ebXML over SOAP maps directly onto SOAP semantics.

These package structure details are for informative purposes about the relationship between the ebXML and SOAP, as this relationship has only recently stabilised. Specific implementation details here refer directly to ebXML configuration in conjunction with the *ebXML Message Service Specification v 1.0*. The aspects pertaining to the SOAP wrapper described here will largely be invisible to participants deploying tool-based implementations of the Message Service Handler

The general structure and composition of an ebXML Message is described in the following figure.

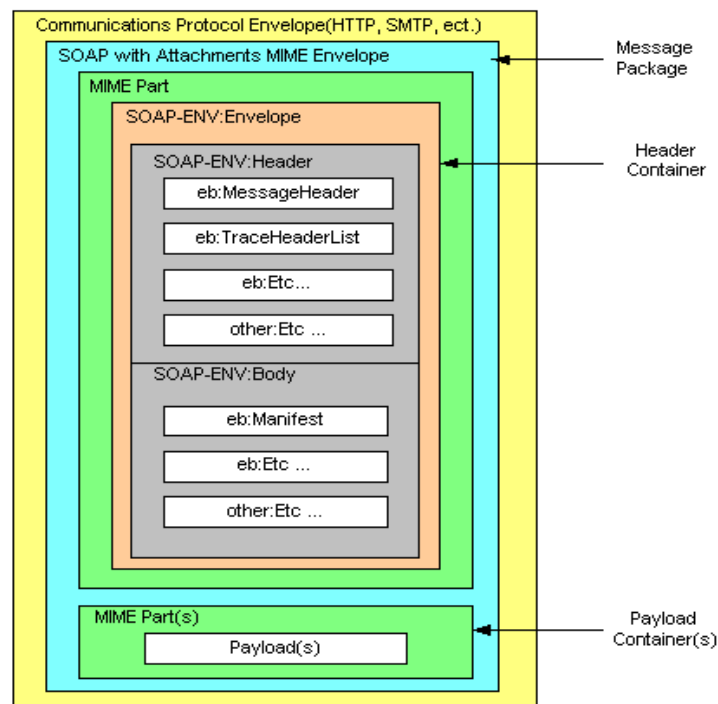


Figure 4.3. ebXML Message Structure and Composition.

The specific parts of the ebXML packaging elements and attributes that require tailored configuration for the FBS are as follows

4.3.1. Payload

In the FBS, the only payload cargo carried will be a single aseXML document. The aseXML document may contain one or more transactions or transaction-acknowledgements.

The contents of each Payload Container must be identified by the ebXML Message Manifest element within the SOAP Body. The mechanism for doing this is described in the *ebXML Message Service Specification v 1.0*

The ebXML Message Service Specification makes no provision, nor limits in any way, the structure or content of application payloads. Payloads can be simple plain-text objects or complex nested multipart objects. The specification of the structure and composition of payload objects is the prerogative of the organization that defines the business process or information exchange that uses the ebXML Message Service.

4.3.2. MessageHeader element

The MessageHeader element is required in all ebXML Messages. It must be present as a child element of the SOAP Header element.

The MessageHeader element is a composite element comprised of the following ten subordinate elements:

4.3.2.1. From and To elements

The From element identifies the party that originated the message. The To element identifies the party that is the intended recipient of the message.

The From and the To elements each contain one or more PartyId child elements.

A uniform addressing scheme for the PartyId element in the From and To elements is specified in Sections 4.3.2 and 4.3.3 of the *FRC B2M-B2B Hub System Specifications* document. This defines how participants address messages.

4.3.2.2. CPAId

The CPAId element is a string that identifies the parameters governing the exchange of messages between the parties.

A mechanism for deriving a unique entry for this field is described in Section 4.3.4 of the *FRC B2M-B2B Hub System Specifications* document.

4.3.2.3. ConversationId

The ConversationId element is a string identifying the set of related messages that make up a conversation between two Parties. This element is mandatory but currently has no role in the FBS. The mechanism for handling this field is described in Section 4.3.6 of the *FRC B2M-B2B Hub System Specifications* document.

4.3.2.4. Service

The Service element identifies the service that acts on the message. Service element will be used to describe different services to the Message Service Interface. Service names will be mapped to priority. Service names and mappings are described in Section 4.1.1 of the *FRC B2M-B2B Hub System Specifications* document.

4.3.2.5. Action

The Action element identifies a process within a Service that processes the Message. Action names and mappings are described in Section 4.1.2 of the *FRC B2M-B2B Hub System Specifications* document.

4.3.2.6. MessageData

The MessageData element provides a means of uniquely identifying an ebXML Message. It contains the following four subordinate elements, which should be configured as follows:

- **MessageId** – The element MessageId is a unique identifier for the message, conforming to [RFC2392]. The "local part" of the identifier as defined in [RFC2392] is implementation dependent and a uniform scheme for deriving this element is described in Section 4.3.5 of the *FRC B2M-B2B Hub System Specifications* document.
- **Timestamp** – Configured as per Section 2.4 of the *FRC B2M-B2B Hub System Specifications* document.
- **RefToMessageId** - Configured as per the *ebXML Messaging Services Specification V1.0*.
- **TimeToLive** - Configured as per Section 4.2.5 of the *FRC B2M-B2B Hub System Specifications* document.

4.3.2.7. QualityOfServiceInfo

The QualityOfServiceInfo element identifies the quality of service with which the message is delivered. This element has three attributes:

- deliverySemantics
- messageOrderSemantics
- deliveryReceiptRequested

The deliverySemantics attribute indicates whether or not a message is sent reliably and needs to be set to OnceAndOnceOnly.

MessageOrderSemantics and deliveryReceiptRequested attributes should be their respective default values.

4.3.2.8. SequenceNumber

The ITDF considered a uniform scheme for populating this element for use in conjunction with the optional ConversationId element to facilitate the delivery of sequential messages. It was decided not to use this element.

4.3.2.9. Description

Configured as per the *ebXML Messaging Service Specification V1.0*.

4.4. Routing

4.4.1. TraceHeaderList element

A TraceHeaderList element consists of one or more TraceHeader elements.

4.4.2. TraceHeader element

While the From and To elements contain participant addresses, routing between two participants via the hub is achieved by configuring the TraceHeader to address the hub.

The TraceHeader element contains information about a single transmission of a message between two instances of a MSH. If a message traverses multiple hops by passing through one or more intermediate MSH nodes as it travels between the From Party MSH and the To Party MSH, then each transmission over each successive “hop” results in the addition of a new TraceHeader element by the Sending MSH.

In the FBS participants will send messages with one intermediate hop, that being the hub. Methodology for doing this is described in the *ebXML Messaging Service Specification V1.0*. The hub address to be used in this field is specified in Section 4.4.2 of the *FRC B2M-B2B Hub System Specifications* document.

4.4.3. Via element

The Via element is an ebXML extension to the SOAP Header that is used to convey information to the next ebXML Message Service Handler (MSH) due to receive the message.

This MSH may be a MSH operated by an intermediary, or it may be the To party. In particular, the Via element is used to hold data that can vary from one hop to another.

Treatments of certain of its attributes are significant for participants in the FBS. Those attributes are described here.

4.4.3.1. *syncReply* attribute

This attribute should not be present; this is semantically equivalent to its presence with a value of “false”.

4.4.3.2. *reliableMessagingMethod* attribute

This attribute should not be present; this is semantically equivalent to its presence with a value of “ebXML”.

4.5. Delivery

A single aseXML document may hold one or more aseXML transactions or one or more aseXML transaction acknowledgements, but not a mix of transactions and transaction acknowledgements. Given there may be more than one transaction per document, ebXML reliable messaging alone is not sufficient to ensure application receipt of all transactions. Every aseXML transaction requires a transaction acknowledgement. From within the Transaction-Application there will be a Transaction Acknowledgement for each transaction verifying that the transaction is available to the application.

For the purposes of the ebXML Message Service Handler (MSH), aseXML documents containing transactions or transaction acknowledgements are undifferentiated as message payload documents.

Every message in the FBS will receive a message acknowledgement using the ebXML reliable messaging protocol. The physical process that transpires during a successful message delivery is as per figure 4.

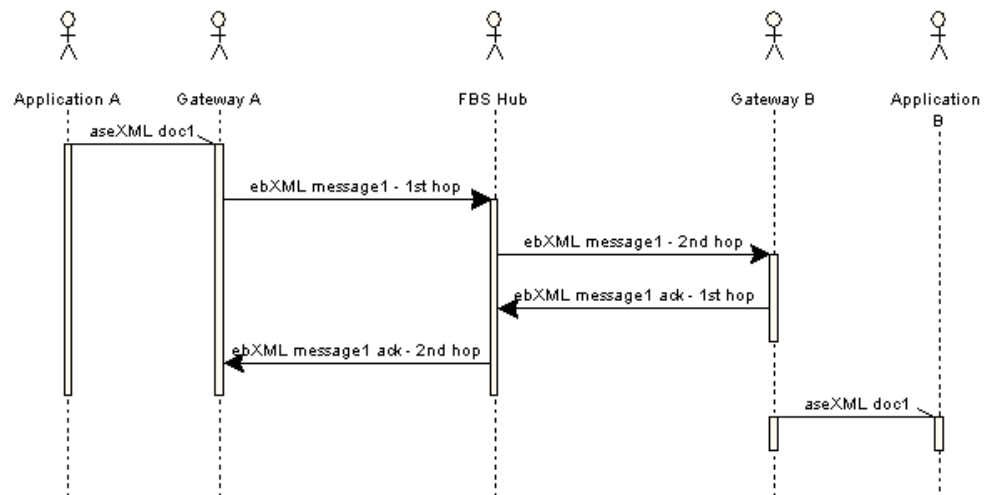


Figure 4.5. ebXML Message Delivery Sequence

The FBS hub performs routing, protocol management, logging, and audit support. It does not participate as a FROM or TO party in the reliable messaging process. It does not act as a store-and-forward interim step in the message acknowledgement cycle. The sender of a message will expect to receive an acknowledgement message from the intended recipient routed via the FBS Hub, but it will not expect an acknowledgement from the hub itself. Under this regime the system provides authenticated and non-repudiable end-to-end delivery of aseXML documents between participants.

Given the error message functionality that forms part of the Reliable Messaging specification, and the message status services, the system will deliver highly dependable, highly automated, self-documenting message delivery.

4.5.1. Reliable Messaging

Delivery of messages within the FBS will conform to the *ebXML Message Service Specification v 1.0*. The details can be found in Chapter 9 of that document.

Reliable messaging is a protocol that provides a mechanism whereby two MSH can reliably exchange messages that are sent using 'reliable message' semantics ensuring that the *To Party* receives the message once and once only.

It is the case that messages routed through the hub may be subject to specific regulatory timing requirements. As we are using the Internet and stateless protocol (HTTP), it is imperative that the sending MSH is responsible for escalation in the event that a timing requirement is not met. Facilities to support this are part of the ebXML protocol, in the form of the TimeToLive, and persistDuration elements. Further information regarding this can be found in the chapter entitled Message Service Interface. Notwithstanding the above, as part of the Reliable Messaging specification, it is incumbent on any MSH to send a delivery failure notification where appropriate. See the Failed Message Delivery section in this chapter.

4.5.2. Persistent Storage and System Failure

A MSH that participates as a gateway in the FBS must keep messages in persistent storage. After a system interruption or failure the MSH must ensure that messages that are in persistent storage are processed in the same way as if the system failure or interruption had not occurred.

These requirements are described in detail in the *ebXML Message Service Specification v 1.0*.

4.5.3. Reliable messaging parameters

These parameters are to be used by participants in the FBS according to the following guidelines.

4.5.3.1. *deliverySemantic*

All messages in the FBS will have the *deliverySemantic* value set to *OnceAndOnlyOnce*. With MSH's that conform to the Reliable Messaging Protocol, the *deliverySemantic* of *OnceAndOnlyOnce* will mean that the Transaction Application or other process at the To Party will receive the message once and only once

Participants will be required to support and deploy the *OnceAndOnlyOnce* semantic.

4.5.3.2. *MshTimeAccuracy*

The *mshTimeAccuracy* parameter indicates the minimum accuracy a Receiving MSH keeps the clocks it uses when checking, for example, *TimeToLive*. Its value is in the format "mm:ss" which indicates the accuracy in minutes and seconds. This value is specified in Section 4.2.1 of the *FRC B2M-B2B Hub System Specifications* document.

4.5.3.3. *TimeToLive*

The *TimeToLive* value indicates the time by which a message should be delivered to and processed by the To Party. It must conform to an XML Schema *timeInstant*.

In this context, the *TimeToLive* has expired if the time of the internal clock of the Receiving MSH is greater than the value of *TimeToLive* for the message.

Maximum or absolute *TimeToLive* values are specified in Section 4.2.5 of the *FRC B2M-B2B Hub System Specifications* document.

4.5.3.4. *ackRequested*

The *ackRequested* value is used by the Sending MSH to request that the Receiving MSH returns an acknowledgment message with an *Acknowledgment* element.

All messages in the FBS will have the value of *ackRequested* set to *Signed*, which indicates that a signed *Acknowledgment* is requested. Upon the

completion of this signed message and signed acknowledgement pair, non-repudiation of the message contents will be in effect.

4.5.3.5. *retries*

The *retries* value is an integer value that specifies the maximum number of times a Sending MSH should attempt to redeliver an unacknowledged message using the same Communications Protocol. This value is specified in Section 4.2.2 of the *FRC B2M-B2B Hub System Specifications* document.

4.5.3.6. *retryInterval*

The *retryInterval* value is a time value, expressed as duration in accordance with the [XMLSchema] *timeDuration* data type. This value specifies the minimum time the Sending MSH MUST wait between retries, if an Acknowledgment Message is not received. This value is in Section 4.2.3 of the *FRC B2M-B2B Hub System Specifications* document.

4.5.3.7. *persistDuration*

The *persistDuration* value is the minimum length of time, expressed as a [XMLSchema] *timeDuration* that data from a reliably sent *Message*, is kept in Persistent Storage by a Receiving MSH. If the *persistDuration* has passed since the message was first sent, a Sending MSH should not resend a message with the same *MessageId*. If a message cannot be sent successfully before *persistDuration* has passed, then the Sending MSH should escalate the failure to an appropriate level by deploying a service from the Message Service Interface.

Maximum or absolute *PersistDuration* values are specified in Section 4.2.4 of the *FRC B2M-B2B Hub System Specifications* document.

4.5.4. ebXML reliable messaging protocol

The ebXML Reliable Messaging Protocol described in *ebXML Message Service Specification v 1.0* must be adhered to by Message Service Handlers, in conjunction with the parameter settings described in the previous section. The five parts of the protocol thoroughly described in that document are:

- Sending message behaviour
- Receiving message behaviour
- Generating an acknowledgement message
- Resending lost messages and duplicate filtering
- Duplicate message handling

Given the protocols are adhered to, the receipt of the Acknowledgment Message indicates that the message being acknowledged has been successfully received and either processed or persisted by the Receiving MSH. An Acknowledgment Message must contain a *MessageData* element with a *RefToMessageId* that contains the same value as the *MessageId* element in the message being acknowledged.

The ebXML Acknowledgement Message makes the aseXML Message Acknowledgement redundant. Participants will not send aseXML Message Acknowledgements to the FBS.

4.5.4.1. Generating an acknowledgement message

There is an important clarification to section 9.3.3 of the *ebXML Message Service Specification v 1.0*. In the FBS implementation of ebXML Message Service the Acknowledgement element will be sent asynchronously, and the value of the message header elements must be set as per the ebXML specification with the following clarification.

- The From element must be populated with the To element extracted from the message received and this is the only PartyId element from the message received to be included in this From element.
- The To element must be populated with the From element extracted from the message received and this is the only PartyId element from the message received to be included in this To element.

4.5.5. Failed message delivery

If a message cannot be delivered, the MSH or process must send a delivery failure notification to the *From Party*. A description of this and all error handling services are described in the *ebXML Message Service Specification v 1.0*.

4.6. Message Service Handler Services

The FBS Message Service Handlers will support two services that are designed to help provide smooth operation of the FBS:

- Message Status Request
- Message Service Handler Ping

4.6.1. Message Status Request Service

This service is to be implemented by all participants, according to the *ebXML Messaging Service Specification V1.0*, noting that the methodology for participants is Reliable Messaging.

4.6.2. Message Service Handler Ping

This service is to be implemented by all participants, according to the *ebXML Messaging Service Specification V1.0*.

5. Transport Layer

5.1. Message Transport Interface

The Message Transport Interface is concerned with the communication protocol bindings and technical details for carrying *ebXML Message Service* messages for the Hypertext Transfer Protocol [HTTP] which is the communication protocol supported in the FBS.

5.1.1. HTTP/S

Hypertext Transfer Protocol Version 1.1 [HTTP] (<http://www.ietf.org/rfc2616.txt>) is the minimum level of protocol that MUST be used. All communication will be done by asynchronous HTTP post.

A non standard port will be used for HTTP/S. The port to use is specified in Section 4.4.2 of the *FRC B2M-B2B Hub System Specifications* document.

There are required specifications concerning the implementation of ebXML over HTTP in appendix B of the *ebXML Messaging Service Specification V1.0*.

5.2. Network Infrastructure

5.2.1. Topology

The topology of the solution is spoke and hub, as per the Housley report recommendations. In this topology each participant is represented as a member node at the end of a spoke. Member nodes communicate with each other via a message exchange hub. This is a two-hop process - sending node to hub – hub to receiving node.

5.2.2. Gateway

5.2.2.1. Message Service Handler

The gateway Message Service Handler is required to perform conforming ebXML transactions with other participants. This implies appropriately addressed, digitally signed ebXML messages and acknowledgements. Beyond complying with the requirements of the FBS, the actual gateway technology is not mandated.

It is anticipated that participants will deploy an appropriately configured commercially available ebXML gateway solution rather than develop their own.

5.2.2.2. Certification

The MSH gateways test and certify themselves against reference sites provided by the FBS administration. These sites will supply services

- To provide for verification of correct aseXML schema use by participant application software.
- To provide verification of correct ebXML gateway configuration

The certification site will not provide a test suite for verification of business rules deployed in participant application software.

5.2.3.Hub

5.2.3.1. Access Methods

The hub will be configured to accept messages from participants connected to the Internet and MarketNet.

These existing network options in conjunction with the communication protocol provide appropriate levels of security and reliability for B2B transactions, including faults.

6. Security

Note: The following Security architecture only applies to ebXML/aseXML messages routed via the HUB. Other message transport methods used for example for BAR transactions may not use the certificate-based security architecture discussed here.

An Internet based message service, by its very nature, presents certain security risks. An ebXML Message Service may be at risk by means of:

- Unauthorized access Data integrity and/or confidentiality attacks (e.g. through man-in-the-middle attacks)
- Denial-of-Service and
- IP spoofing

Each security risk is described in detail in ebXML Technical Architecture Risk Assessment – <http://www.ebxml.org/specs/secRISK.pdf>. Beyond the requirements herein, participants should make themselves familiar with these risks and institute countermeasures balanced against an assessment of the inherent risks and the value of the asset(s) that might be placed at risk.

The system will require some Public Key Infrastructure. The system will employ transport layer encryption via SSL to protect the data in transit, and as part of the ebXML reliable messaging solution, will provide signed messages and signed acknowledgements, which will provide authentication and non-repudiation.

6.1. Key management

Key management is a major issue that needs to be addressed with respect to the capabilities of the Message Service Handler. In particular, the MSH will be called upon to apply digital signatures; the appropriate private keys must be available to the MSH. Private keys must be managed very carefully and deliberately. Thus, some configuration will be necessary to establish the key management mechanisms to be used in the particular FBS Gateway. Gateway Public Key (PKI) Infrastructure will be the responsibility of participants as described earlier in Chapter 3 of this document.

The FBS Certificate Authority will issue and distribute certificates, but local administration of keys will be the responsibility of an enterprise level PKI solution by each of the participants. It is unfeasible and would certainly be unacceptable to participants for the FBS to deploy an over-arching PKI.

6.2. Encryption

The system will employ transport layer encryption via SSL to protect the data in transit. The keys used will be 128 bit X509v3 and will be provided by the FBS administration.

In the FBS is that there will be neither ebXML payload encryption nor element level encryption within the aseXML document.

6.3. Digital Signature

To create a digital signature for a message, the data to be signed is transformed by an algorithm that takes as input the private key of the sender. Because a transformation determined by the sender's private key can only be undone if the reverse transform takes as a parameter the sender's public key, a recipient of the transformed data can be confident of the origin of the data (the identity of the sender). If the data can be verified using the sender's public key, then it must have been signed using the corresponding private key (to which only the sender should have access).

For signature verification to be meaningful, the verifier must have confidence that the public key does actually belong to the sender. A certificate, issued by the Certificate Authority, is an assertion of the validity of the binding between the certificate's subject and their public key such that other users can be confident that the public key corresponds to the subject.

In the FBS, the ebXML payload (i.e. the aseXML document) will be signed. The ability to do this needs to be a feature of the ebXML MSH product that is chosen by participants.

The algorithms and key configurations used by this process are described in detail in Chapter 11 of the *ebXML Message Service Specification v 1.0*.

Appendix A Additional Transport Information in Interface Control Document (ICD) (WA only)

The reader is referred to the SA/WA Interface Control Document (ICD) (available on ~~the Market Operator~~ [AEMO](#) website) for additional transport treatment information on:

Type of Dataflow	Description
<i>AseXML</i>	An automated ebXML/aseXML transaction, routed via the Hub
<i>Bulk electronic file</i>	A csv file which has a defined structure, which can be automatically processed, but does not have aseXML wrapping. This file has a non-specific method of transport. It can be delivered by any means other than ebXML/aseXML or secure FTP.
<i>automated electronic file</i>	A csv file which has a defined structure, which can be automatically processed, but does not have aseXML wrapping. This file type will be transferred using secure ftp, as defined in the ICD
<i>Notice</i>	An unstructured instruction <i>in writing</i> , such as fax, physical letter, email etc. Minimum requirements for this type of communication are detailed in the ICD
<i>Acknowledgement</i>	Dependent upon the method of transport for the initiating transaction, the acknowledgement of that transaction will be one of the following: <ol style="list-style-type: none"> 7. An aseXML transaction acknowledgement, as defined in the aseXML guidelines document and outlined in ICD section 3.2.5 (defined) & 3.2.7 (outlined) 8. An ftp csv acknowledgement, as defined in ICD section 3.4.2.5

Note: The Security architecture proposed in this document only applies to ebXML/aseXML messages routed via the HUB. Other message transport methods, as per this Appendix, may not use the Hub certificate based security architecture or certificates.



CSV Data Format Specification

For the SA and WA Gas Retail Markets

Version: 3.32
Last Update: ~~4-October-2010~~ [TBA](#)

Version History

Version	Date	Author(s)	Changes and Comments
1.1	26/08/02	MK	Original from Michael Kroumer distributed per Victorian Market. Distributed with REMCo Specification Pack V2.01
2.9	19/01/04	BE/DB	Updated for South Australian and Western Australian markets. For distribution with REMCo Specification Pack V2.9. GRMS application refers to Section 2. The Interface Control Document takes precedence over the remaining sections of this document for GRMS specific requirements.
3.0	11/5/04	BE	<p>REMCo front page added.</p> <p>Cross references to other elements of REMCo Specification Pack replaced with a generic cross-reference to the REMCo Specification Pack Usage Guide.</p> <p>The caveat in section 1.3 about the relationship between this document and the ICD has been removed.</p> <p>Section 2.8.5 added to document date/time formats and policies regarding time zones.</p> <p>Examples in 3.1 and 5.1 revised to be SA/WA examples.</p> <p>Section 3.1 – File name and extension formats separated to reflect differences between REMCo to market transactions and other transactions.</p> <p>Section 3.1 – Point 5 amended to redefine the date/time stamp as a 14 character unique identifier. Also text 'all upper case' added.</p> <p>Section 4.3 amended to specify that all elements within the file name and extension are upper case.</p> <p>Section 2.2 amended to specify that for B2M transactions the header row is case sensitive and all upper case.</p> <p>Caveat added to example of a CSV transaction with 'all' as the 'to' participant.</p>
3.1	9/5/06	REMCo	Amendment to Section 2.2 to clarify the format of headers as per rule change C18/05S,
3.2	1/10/10	T Sheridan	Updated to reflect the relevant Market Operator requirements following the transfer of REMCo's SA retail market operations to AEMO.
3.3	TBA	D. McGowan	<p><u>Update to include:</u></p> <p><u>WA</u></p> <ul style="list-style-type: none"> C02/16C – REMCo to AEMO transition changes. <p><u>SA</u></p> <ul style="list-style-type: none"> IN029/16 – REMCo to AEMO transition

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Preamble:

This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes:

(a) Several terms have been changed to a general term where possible with a market specific definition; and

(b) In the interests of keeping new terms and acronyms to a minimum, the original word has been italicised where possible to indicate that its definition again depends on its location. This approach is to promote interchange ability in these documents for the benefit of stakeholders from both states.

The terms and their relevant definitions are as follows:

Term:	South Australian Market Definition:	Western Australian Market Definition:
Market Operator	AEMO	REMCe
Retail Market Rules (RMR)	Retail Market Procedures	Retail Market Rules

For more information please contact the Market Operator in your state:

	AEMO	REMCe
Website:	http://www.aemo.com.au	http://www.remce.net.au

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1. Introduction

1.1. Purpose

This document defines format of Comma-Separated Values (CSV) files for transactions that are to be exchanged between Market Participants.

1.2. Audience

The audience of this document includes IT developers, IT managers, testers, system analysts & system architects involved in the design and development of systems for Gas Retail Markets in South Australia and Western Australia.

1.3. Scope

This document covers the delivery format of CSV components that are either:

- incorporated into an aseXML transaction (aseXML payload)
- communicated via an automated electronic file (see B2M Interface Control Document)
- attached to an e-mail or provided on a disk
- downloaded from a web site

The contents (data elements) of CSV components carried in aseXML transactions are defined the B2M Interface Control Definitions Document or the B2B Systems Interface Definitions Document.

1.4. Related Documents

This document should be read in conjunction with the other documents contained within the [AEMO](#) Specification Pack as defined in the [AEMO](#) Specification Pack – Usage Guide.

1.5. 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.

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 column's 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.

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. For non-aseXML B2M & M2B transactions that are sent through the FTP server, the header row is case sensitive and is all upper case. For aseXML B2M & M2B transactions with a CSV payload, the header row is case insensitive.

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 the B2M Interface Control Document or the B2B Systems Interface Specification Document, 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 format is defined as **numeric** [(*precision* [, *scale*])]. The *precision* (referred to as 'Logical Length' in the ICD and B2B SID) and *scale* (referred to as 'Decimal Length' in the ICD the B2B SID) 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.

2.8.5. Date/time

In general, date/time and time elements in the body of CSV transactions will be expressed with a Time Zone Designator (TZD).

Date/time in the format ccyy-MM-ddThh:mm:ss+hh:mm

Time in the format hh:mm:ss+hh:mm

Fractions of seconds can be included as an option in the format ss.ss... with any number of digits after the decimal point supported.

The time zone selected will be at the discretion of the sending party. The sending party must therefore ensure that the combination of time and time zone accurately communicates the point in time being defined.

For example, if the time to be communicated is 9.00am (Central Australia Standard Time), the data element could contain 09:00:00+09:30 or 09:30:00+10:00. It is then up to the receiving party to ensure that they have the ability to convert this time to another time zone if required.

In the case of the CSV element 'Planned_Outage_Time', as this is only included in a manually-prepared e-mail, it will always be in local time without a Time Zone Designator.

Note: as defined in the B2B-B2M Hub Specifications and Architecture documents all date/time stamps in the messaging layer (ebXML) and in the headers of aseXML transactions will be expressed in GMT+10 (market time).

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 – Market Operator to Market Transactions

The file name shall be constructed of the following elements (case-sensitive and all uppercase) separated by underscore "_" signs:

1. The Gas Retail Market . For South Australia it shall always be "SAGAS". For Western Australia it shall always be "WAGAS".
2. The name of the transaction to which the CSV file is supplied, as defined in the [AEMO](#) Specification Pack.
3. The CSV file originator identifier, valid participant as per the FRC B2M-B2B System Specification and FRC B2M-B2B System Architecture Documents.
4. The CSV file recipient identifier, valid participant as per the FRC B2M-B2B System Specification and FRC B2M-B2B System Architecture Documents.
5. A 14 character alphanumeric unique identifier with the following:
`<datetime><sequence>`
 where
`<datetime>` is YYYYMMDDhhmm
`<sequence>` is a 2 digit value ranging from '00' (zeroes) to 'ZZ'
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 for the WA market:

`WAGAS_UAI_REMCO_ALS_2004050114359B.CSV`

3.2. File name and extension – B2B Transactions and Market to Market Operator Transactions

The file name shall be constructed of the following elements (case-sensitive and all uppercase) separated by underscore "_" signs:

1. The Gas Retail Market. For South Australia it shall always be "SAGAS". For Western Australia it shall always be "WAGAS".
2. The name of the transaction to which the CSV file is supplied, as defined in the [AEMO](#) Specification Pack.
3. The CSV file originator identifier, valid participant as per the FRC B2M-B2B System Specification and FRC B2M-B2B System Architecture Documents.
4. The CSV file recipient identifier, valid participant as per the FRC B2M-B2B System Specification and FRC B2M-B2B System Architecture Documents.
5. A 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 for the SA market:

[SAGAS_ENERGYHISTORYRESPONSE_TXUR_ENVSA_20040703131500.CSV](#)

Note: If, as in the above example, a date/time stamp is used as the unique ID, fractions of seconds will not be included in the date/time stamp.

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

[SAGAS_ENERGYHISTORYRESPONSE_TXUR_ALL_20040703151500.CSV.](#)

Note: not all participants (including ~~the Market Operator~~ [AEMO](#)) may be able to accept transactions with 'all' in the file name.

3.3. 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, upper case, 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 Non-IT RMR Communications document which is part of the Information Pack. .

5. Email Format – B2B Transactions

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. Note Email format for [AEMO](#) ~~the Market Operator~~ to Market transactions are defined in the ICD.

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 South Australia it shall always be "SAGAS". For Western Australia it shall always be "WAGAS".
2. The name of the transaction to which the CSV file is supplied, as defined in the [AEMO](#) Specification Pack
3. The CSV file originator identifier, valid participant as per the FRC B2M-B2B System Specification and FRC B2M-B2B System Architecture Documents
4. The CSV file recipient identifier, valid participant as per the FRC B2M-B2B System Specification and FRC B2M-B2B System Architecture Documents
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 for the SA Market:

[SAGAS_ENERGYHISTORYRESPONSE_TXUR_ENVSA_20040703131500](#)

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.



Connectivity Testing and Technical Certification

For the SA and WA Gas Retail Markets

Version: 3.54
Last Update: ~~1-October-2013~~TBA

Version History

Version	Date	Author(s)	Changes and Comments
0.1	3/2/04	B. Eaves	1 st draft of REMCo version – based on Version 1.0 of VENCORP document FRC B2B System Certification. Limited to Part One (FRC B2B System Certification) – does not include automated electronic file interface certification
0.2	5/02/04	B. Eaves	Modified version of sample e-mail to show SA/WA transactions
0.3	12/02/04	B. Eaves	Title amended to Connectivity Testing and Technical Certification. Additional section on Connectivity Testing added. Addition of reference to GBO ID and Participant ID to Section 1.2.1 and 1.2.2.
0.4	27/2/04	B. Eaves	Additional section on csv FTP certification added.
0.5	3/3/04	B. Eaves	Additional section on Low-volume interface added to section 2.
0.6	8/3/04	P. Beardmore	Contacts list added General edits and clarifications
1.0	10/3/04	P. Beardmore	Final edits and clarifications
2.0	10/5/04	B. Eaves	Further information on Low-volume interface added to section 2. FTP section amended to reflect removal of SSL.
3.0	15/11/05	REMCo	Amend section 1.3 in accordance with rule change C08/05S.
3.1	16/5/06	REMCo	Amend section 2 in accordance with rule change C11/05S.
3.11	02/05/06	REMCo	Amended sections 1.3.2 & 2.3.2 to provide for more certainty regarding the re-certification process. Restructured part of document to remove reference to the implementation of the market. Updated contact details.
3.12	12/05/06	REMCo	Updated based on feedback received from the TWG on 9 May 2006.
3.13	20/07/06	REMCo	Updated to reflect feedback from VicGas ITDF & Minor corrections.
3.2	27/03/07	REMCo	Updated to reflect approval of versions 3.11, 3.12 & 3.13 by WA Government on 9 February 2007 in accordance with rule change C08/06S.
3.3	1/10/10	T. Sheridan	Updated to reflect the relevant Market Operator requirements following the transfer of REMCo's SA retail market operations to AEMO.
3.4	1/10/13	D. McGowan	Update to include SA and WA changes <ul style="list-style-type: none"> IN008/13 (SA) and C01/13S (WA) – Updated sections 1.4 and 2.5 to include notification period for new GBO ids and Hub ids.
3.5	TBA	D. McGowan	Update to include: WA

			<ul style="list-style-type: none">C02/16C – REMCo to AEMO transition changes.IN029/16 – REMCo to AEMO transition SA
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Preamble:

This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes:

- (a) — Several terms have been changed to a general term where possible with a market specific definition; and
- (b) — in the interests of keeping new terms and acronyms to a minimum, the original word has been italicised where possible to indicate that its definition again depends on its location. This approach is to promote interchangeability in these documents for the benefit of stakeholders from both states.

The terms and their relevant definitions are as follows:

Term:	South Australian Market Definition:	Western Australian Market Definition:
Market Operator	AEMO	REMCe
Retail Market Rules (RMR)	Retail Market Procedures	Retail Market Rules

For more information please contact the Market Operator in your state:

	AEMO	REMCe
Website:	http://www.aemo.com.au	http://www.remco.net.au

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Introduction

This document describes the process through which organisations wishing to participate in either the SA and/or WA Gas Retail Markets can achieve technical certification from ~~the relevant Market Operator~~ [AEMO](#).

Technical Certification includes most activities that would be termed connectivity testing. However, some interfaces are not covered by Technical Certification. This document therefore also provides an overview of those areas of Connectivity Testing not covered by Technical Certification.

The document is in three parts:

1. The certification process relating to transactions routed via the FRC Hub;
2. The certification process relating to the automated electronic file interface (secure FTP) between market participants' gateways and the gas retail market system (GRMS) operated by ~~the Market Operator~~ [AEMO](#) for the SA and WA Gas Retail Markets; and
3. Connectivity Testing for those interfaces not addressed in Technical Certification.

1. Certification of FRC Transactions Routed via the FRC Hub

1.1. Introduction

~~The Market Operator~~ [AEMO](#) has contracted the FRC Hub operator to administer the process for certifying that participants in the SA and WA Gas Retail Markets can satisfactorily connect to and interoperate with the FRC Hub in accordance with the interface specifications and architectural standards defined in the [AEMO](#) Specification Pack (located [on at the relevant Market Operator AEMOs](#) website).

This process certifies both a market participant's aseXML/ebXML gateway and the associated 'back-end' systems which generate the aseXML transactions. Any change of ownership of a certified gateway, which otherwise undergoes no infrastructure changes, will have no effect on that gateway's certification status. However, any change to the gateway itself or the back-end systems, will require recertification.

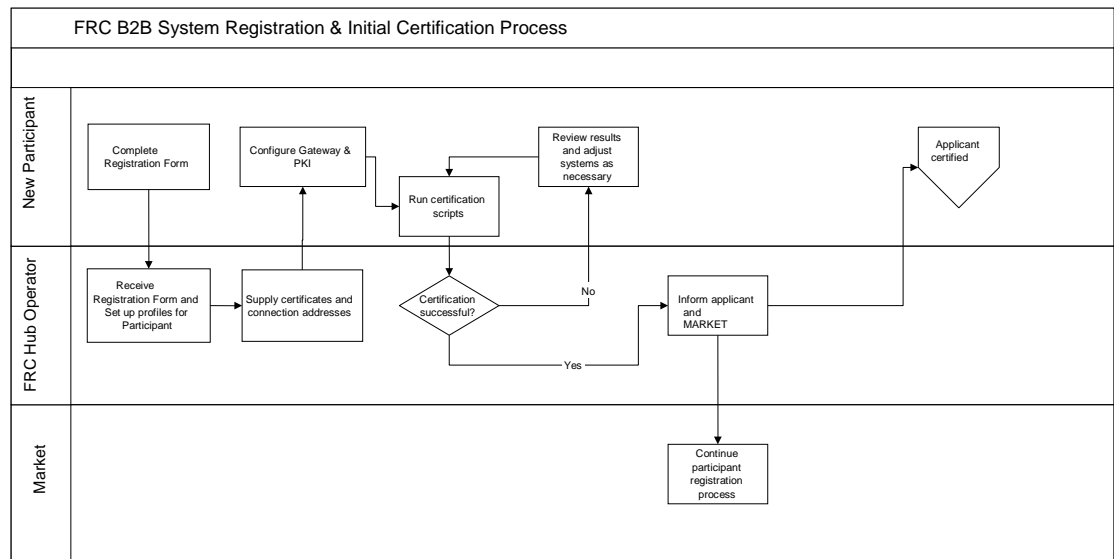
This certification is purely technical in nature. It does not imply that the applicant may participate in the SA and WA Gas Retail Markets. The applicant may not use the FRC Hub until ~~the Market Operator~~ [AEMO](#) certifies that the applicant can participate in the live SA and WA Gas Retail Markets.

1.2. Certification Pre-requisites

Applicants will need to create and register a test gateway and back end system, and connect it to the FRC Gas Test Hub to enable certification to take place. Instructions for gateway registration and connection are contained in the FRC Gas Hub Participant User Guide, available on the AEMO website at www.aemo.com.au/retailops/0700-0039.pdf

1.3. Certification Processes

The certification process is described in the diagram below:



Certification shows that participants are able to:

- Connect to the FRC Hub using SSL, either via the Internet or the Gas Industry Network;
- Send well-formed ebXML messages (that conform to the *ebXML Message Services Specification v1.0*, and the FRC B2B-B2M Hub System Architecture and [AEMO](#) Specifications documents) via the FRC Hub to a Certification Responder which acts as a gateway; and
- Send documents that conform to the aseXML schema and the validation rules described in current versions of the relevant documents in the [AEMO](#) Specification Pack. Validation of aseXML will include both the XML content and CSV content of the transactions.

There are a variety of scripts that an applicant must run to demonstrate that it is capable of interoperating with the FRC Hub. These fall into two categories:

- Messaging capabilities; and
- Transaction capabilities.

1.3.1. New Participant Certification

Applicants will follow these steps to be eligible for certification:

- Applicants will obtain the [AEMO](#) Specification Pack and Information Pack containing process flows, interface definitions and details of system architecture from ~~the Market Operator~~ [AEMO](#)
- Applicants will obtain an FRC Gas Hub Participant User Guide and Registration Form from AEMO;
- Applicants connect their test gateway to the FRC Test Hub. The FRC Hub Operator will make available a 'Sandpit' environment for preliminary testing prior to formal certification on the Certification Responder;

- Two stages of formal testing will be conducted by the applicant. These stages are described as Window 1 (messaging capability) and Window 2 (transaction capability). An applicant will need to have successfully completed Window 1 before commencing Window 2;
- The applicant should notify the FRC Hub Operator of the time at which the applicant plans to undertake certification;
- Once the applicant has completed either of the Windows, it must notify the FRC Hub Operator of the time at which it started and stopped sending transactions for certification; and
- The FRC Hub Operator will then analyse the results of the process and will issue a report to the applicant and to ~~the Market Operator~~ [AEMO](#).

1.3.1.1. Certification Window 1 – Messaging

All applicants need to certify against all the components of Window 1. The scripts for these processes fall into three groups. They are

1. Applicants will establish ebXML messaging capability over SSL;
2. Applicants will establish digital signature capability on messages; and
3. Applicants will establish reliable messaging capability on messages.

Test scripts for Window 1 tests are published by the FRC Hub Operator on its certification user interface. These scripts do not provide XML for participants to run, but describe the purpose and steps of each test.

1.3.1.2. Certification Window 2 – Transactions

In Window 2, the certification processes that an applicant needs to pursue are defined according to the applicant's role in the SA and WA Gas Retail Market (e.g. Network Operators will certify against a different set of transactions to Users).

Applicants can nominate the aseXML transactions that they wish to be certified against, by using the certification user interface. The interface groups the transactions according to aseXML transaction groups but does not force an applicant to certify for an entire group. Individual transactions can be selected within groups.

Scripts for transaction tests have not been published. Each transaction test takes the same format:

- The initiator (either the applicant or the Certification Responder) sends the transaction;
- The receiver sends an ebXML acknowledgement;
- The receiver sends an aseXML transaction acknowledgement; and
- The initiator sends an ebXML acknowledgement.

1.3.1.3. Certification Notification

When these procedures have been completed, the applicant will advise the FRC Hub Operator, which will review the results of the certification process. When an applicant

has been successful, the FRC Hub Operator will produce a report advising the applicant and ~~the Market Operator~~ [AEMO](#) of the results of the certification process.

1.3.2. Re-certification of a participant

~~The Market Operator~~ [AEMO](#) requires that if any of the following occurs an applicant must complete the re-certification process as outlined under section 1.3 of this document.

- Relocation of the applicant's gateway MSH;
- A change to the hardware or software platform on which the applicant's gateway MSH is deployed;
- Any major changes are made to application services behind the gateway; and
- Any other changes that might reasonably be considered to render the applicant's current certification invalid.

Ultimately it is up to each certified participant to ensure that its certification remains valid after any configuration changes, such as those above.

~~The Market Operator~~ [AEMO](#) may request re-certification on any part of the certification process by participants in the event of:

- FRC Hub changes;
- FRC B2B-B2M Hub System Specification changes;
- aseXML schema changes;
- X.509 certificate revocations; and
- A participant reconnecting to the FRC Hub after its connection has been 'blocked' by ~~the Market Operator~~ [AEMO](#).

Should a Participant be required to re-certify for any reason an application will need to be made to ~~the Market Operator~~ [AEMO](#) which outlines the basis for re-certification. If a Participant considers that it should be exempt from part of the re-certification process, details of the basis for this claim, including the impact of these changes on the Participant's messaging and transaction capabilities, must be provided to ~~the Market Operator~~ [AEMO](#) for consideration and approval.

Re-certification must be successfully completed prior to the release of any changes to the production environment. The release of changes to a Participants production environment should be notified to the market at least one week prior to their release.

1.3.3. Certification User Interface

The FRC Hub provides a browser-based user interface to assist market participants in their certification.

For detailed instructions on the use of this interface, participants should refer to the FRC Hub Participant User Guide.

1.4. Authorise Participants to use the FRC Hub

If ~~the Market Operator~~ AEMO is satisfied with the outcomes of the certification process and the Participant has met their other regulatory and market requirements enabling them to communicate with the FRC Hub and actively participate in the retail market, ~~the Market Operator~~ AEMO will then:

1. If relevant - advise other Participants that a New Participant is certified to use the FRC Hub and provide the new Participants ID. New Participants should allow ten business days for other Participant's systems to be updated; and
2. Issue an authorisation for the Participant to actively send transactions through the FRC Hub.

2. Certification of FRC Transactions routed via the GRMS FTP Gateway

2.1. Introduction

The FTP Certification process is operated by ~~the Market Operator~~ [AEMO](#). This certification is purely technical in nature. It does not imply that the applicant may participate in either the SA or the WA Gas Retail Market. The applicant may not use the GRMS operated by [AEMO](#) ~~the Market Operator~~ until ~~the Market Operator~~ [AEMO](#) certifies that the applicant can participate in the live SA and WA Gas Retail Market.

This process certifies both a participant's FTP interface and any associated 'back-end' systems which generate the .csv files. Any change of ownership of this interface and systems that does not involve infrastructure changes will have no effect on the interface and system's certification status. However, any change to the interface and systems, will require recertification.

If an organisation is to use more than one interface for connection to the FTP interface, then each of those interfaces will need to be separately certified by this process.

For detailed instructions on the use of the FTP Interface, participants should refer to the GRMS FTP User Guide contained in the Information Pack.

2.2. Registration

To establish a Virtual Private Network (VPN) connection so that they can use the FTP interface, participants should follow the process defined in the GRMS FTP User Guide.

2.3. Certification Processes

Certification of the FTP Interface confirms that the participants are able to:

- Connect to the FTP Interface; and
- Send .csv files that conform to the specifications defined in the CSV Data Format Specification and the B2M Interface Control Definition documents.

2.3.1. New Participant Certification

To be eligible for certification, applicants will:

- Implement a VPN connection between the applicant's systems and the GRMS;
- Connect to the FTP interface via a VPN connection. ~~The Market Operator~~ [AEMO](#) will make available a 'Sandpit' environment for preliminary testing prior to formal certification;
- Send to a defined 'in directory' a complete set of the transactions that they would be required to send to the FTP interface in an operational market for them to comply with the *Retail Market* ~~Rules~~ [Procedures](#) and ~~the Market Operator~~ [AEMO's](#) Specification Pack; and

- Inform ~~the Market Operator~~ [AEMO](#) that they have completed the certification process.

~~The Market Operator~~ [AEMO](#) will then analyse the results of the process and will issue a report to the applicant.

2.3.2. Requesting Re-certification of a participant

~~The Market Operator~~ [AEMO](#) requires that if any of the following occurs, an applicant must complete the re-certification process as outlined under section 2.3 of this document.

- Any major changes are made to back-end systems which generate the .csv files; and
- Any other changes that might reasonably be considered to render the applicant's current certification invalid.

Ultimately it is up to each certified participant to ensure that its certification remains valid after any configuration changes, such as those above.

~~The Market Operator~~ [AEMO](#) may request re-certification on any part of the certification process by participants in the event of:

- VPN configuration changes; and
- FTP system changes; and
- CSV file format changes.

Should a Participant be required to re-certify for any reason an application will need to be made to ~~the Market Operator~~ [AEMO](#) which outlines the basis for re-certification. If a Participant considers that it should be exempt from part of the re-certification process, details of the basis for this claim, including the impact of these changes on the Participant's messaging and transaction capabilities, must be provided to ~~the Market Operator~~ [AEMO](#) for consideration and approval.

Re-certification must be successfully completed prior to the release of any changes to the production environment. The release of changes to a Participants production environment should be notified to the market at least one week prior to their release.

2.4. Certification of FRC Transactions routed via ~~the Market Operator~~AEMO Low Volume Interface

The low volume interface is based on the GRMS FTP Gateway. Therefore, certification of the Low Volume Interface will follow the same process as described in this document for the GRMS FTP Gateway. However, instead of sending a set of csv files to the GRMS FTP Gateway (as described in section 2.3), the applicant will send the full set of aseXML transactions that it will use in the operational market. These transactions should have the Participant ID of the FRC Hub Certification Responder in the 'to' field of the transaction and the applicant's own Participant ID (GBO ID) in the 'from' field.

Full details of file names, compression formats, suffixes etc. are provided in section 3.6 of the Interface Control Document (ICD).

To 'certify' that the applicant can transmit a set of valid aseXML transactions that complies with the Specification, the applicant should send a full set of aseXML transactions to the GRMS FTP Gateway as outlined above. ~~The Market Operator~~AEMO, once notified by the participant that the files are ready, will then manually transfer a copy of the aseXML transactions from the applicant's FTP inbox to the FRC Hub Operator for processing in the Certification Responder to ensure that the transactions are fully aseXML compliant.

To certify that users of the Low Volume Interface can correctly receive and process transactions, a complete set of transactions that will be received by the applicant will be placed in the applicant's FTP outbox. Upon notification from ~~the Market Operator~~AEMO, the applicant should then process these transactions and generate the appropriate acknowledgements.

As an alternative to the approach outlined above using the FTP Gateway, ~~the Market Operator~~AEMO may arrange for users of the Low Volume Interface to have access to a web-based interface which will allow users to send aseXML transactions directly to the Certification responder.

2.5 Authorise Participants to use the GRMS FTP Gateway

If ~~the Market Operator~~AEMO is satisfied with the outcomes of the certification process and the Participant has met their other regulatory and market requirements enabling them to communicate with the GRMS FTP Gateway and actively participate in the retail market, ~~the Market Operator~~AEMO will then:

1. If relevant - advise other Participants that a New Participant is certified to use the GRMS FTP Gateway and provide the new Participants GBO ID. New Participants should allow ten business days for other Participant's systems to be updated; and
2. Issue an authorisation for the Participant to actively send transactions through the GRMS FTP Gateway.

3. Other Connectivity Testing

3.1 Network Operators

For participants who are not using the Low Volume Interface, the only area of connectivity testing that is not already covered by Technical Certification is the operation of secure web sites by Network Operators to provide Users with Interval Meter Data.

This area will be covered by a series of tests to ensure that:

- Network Operators can place correctly-formatted .csv files in the relevant User directories using the appropriate naming conventions etc;
- Retailers can connect to the Network Operator's secure web site; and
- Retailers can download the files from the Network Operator's secure web site.

4. Contact Information

Below are the contact details for [AEMO](#) ~~the relevant Market Operator in SA and WA~~ for matters in relation to:

- Certification of FRC Transactions routed via the FRC
- Certification of FRC Transactions routed via the GRMS FTP Gateway
- Certification of FRC Transactions routed via ~~the Market Operator~~ [AEMO](#) Low Volume Interface

For South Australia ~~and Western Australia~~

AEMO Contact

Gas Retail Market ~~Support~~ [Operations](#)

Email: supporthub@aemo.com.au ~~grcf@aemo.com.au~~

Ph: [1300 236 600](tel:1300236600) ~~(03) 9609 8000~~

Hub Operator Contact

AEMO FBS Administration

Email: FBSAdmin@aemo.com.au

Ph: [1300 236 600](tel:1300236600) ~~1800 684 436~~

~~For Western Australia~~

~~REMCo Contact~~

~~REMCo Market Support~~

~~Email: market_support@remco.net.au~~

~~Ph: (03) 9609 8000~~

~~Hub Operator Contact~~

~~AEMO FBS Administration~~

~~Email: FBSAdmin@aemo.com.au~~

~~Ph: 1800 684 436~~



Readiness Criteria

For the SA and WA Gas Retail Markets

Criteria used to determine whether a new market participant is ready to enter the SA or WA Gas Retail Market or when existing market participants and ~~the relevant Market Operator~~ [AEMO](#) make significant changes to existing IT systems

Last Update: ~~1 October 2010~~ [TBA](#)

Preamble:

This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes:

(a) Several terms have been changed to a general term where possible with a market specific definition; and

(b) In the interests of keeping new terms and acronyms to a minimum, the original word has been italicised where possible to indicate that its definition again depends on its location.

This approach is to promote interchange ability in these documents for the benefit of stakeholders from both states.

The terms and there relevant definitions are as follows:

Term:	South Australian Market Definition:	Western Australian Market Definition:
Market Operator	AEMO	REMCe
Retail Market Rules (RMR)	Retail Market Procedures	Retail Market Rules

For more information please contact the relevant Market Operator in your state:

	AEMO	REMCe
Website:	http://www.aemo.com.au	http://www.remco.net.au

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1 . Introduction

1.1 Purpose

This document sets out the criteria that will form the basis of ~~the Market Operator~~ [AEMO](#)'s assessment of a new participant's readiness to join the South Australian or Western Australian Gas Retail Market pursuant to the issuance of a GBO Identification in accordance with ~~rule clause~~ 21B of the *Retail Market Procedures* ~~Rules~~ (*RMRP*).

This revised version of the Participant Readiness Criteria defines those criteria that apply to participants intending to join the live SA or WA Gas Retail Markets. It replaces the previous version of the Readiness Criteria, which defined those criteria applicable once the SA and WA Gas Retail Markets become operational.

This paper also addresses the scenario in which an existing market participant or ~~the Market Operator~~ [AEMO](#) makes significant changes to its existing systems and processes.

1.2 Introduction

As described in ~~rule clause~~ 21B of the *RMRP*, each person who has agreed to comply with some or all of the *RMRP* must participate in the Readiness Testing Process and satisfy the Readiness Criteria prior to the date that the person is required to comply with the *RMRP*. This document presents the Readiness Testing Process and the Readiness Criteria that apply to a new participant joining either the SA or the WA Gas Retail Market.

The Readiness Criteria defined in this document define the *minimum* requirements that a participant must satisfy in order to join either the SA or the WA Gas Retail Market. In cases, for example, where a number of participants are joining a Market at the same time, or where a participant joining a Market may have a significant impact on the Market, ~~the Market Operator~~ [AEMO](#) may, following consultation with the existing market participants, request that additional testing be undertaken. In addition, new market participants may choose to organise additional testing with ~~the Market Operator~~ [AEMO](#) or the appropriate network operator.

Following this introduction, this Readiness Criteria document contains two sections:

- Readiness Criteria – for new participants
- Obligations on an existing market participant or [AEMO](#) ~~the Market Operator~~ making significant changes to its existing systems and processes

2 Readiness Criteria for New Participants

In assessing whether a participant is ready to enter either the SA and WA Gas Retail Market, ~~AEMO the Market Operator~~ will use a combination of:

1. Technical certification of the participant, undertaken by ~~AEMO the Market Operator~~; and
2. Self-certification by the participant, supported by evidence provided by that participant.

For WA, new entrants must become ~~members of REMCo~~ parties to the Western Australian Gas Retail Market Agreement (being the agreement between gas market participants for the purposes of section 11ZOF of the Energy Coordination Act 1994 (WA)) prior to participating in the Readiness Testing Process. For SA, no such requirement exists.

2.1 Connectivity Testing and Technical Certification by the Market Operator (Readiness Testing Process)

Prior to joining either the SA or the WA Gas Retail Market, a new participant must receive Technical Certification from ~~the Market Operator~~ AEMO stating that the systems to be used by the participant in the operation of the Market can:

- i. Meet the connectivity and technical certification requirements for use of the FRC Hub and the GRMS FTP gateway;
- ii. Where relevant, send/receive correctly structured and valid ebXML and aseXML messages/transactions;
- iii. Send/receive aseXML documents that conform to the transaction definitions set out in the AEMO Specification Pack;
- iv. Where relevant, send/receive correctly structured 'csv' files that meet the definitions set out in the AEMO Specification Pack.

The process for technical certification is set out in the paper entitled 'Connectivity Testing and Technical Certification' which is part of the AEMO Specification Pack.

2.2 Self Certification

Prior to joining either the SA or WA Gas Retail Market, a new market participant will be required to have furnished to ~~the Market Operator~~ AEMO a letter from the senior executive within that company who has responsibility for the business functions associated with gas FRC, certifying that:

- The systems, processes and staff that are to be used for operation in the Market have passed reasonable and prudent internal testing by the market participant. ~~The Market Operator~~ AEMO will require that the letter contains evidence of successful testing of either the SA or WA Gas Retail Market business processes defined in the ~~RM/P~~ and the AEMO Specification Pack that are applicable to the participant (e.g. transfers, BAR). The evidence is to

demonstrate the breadth, quality and success of the participant's testing (e.g. list of test cases, summary of test result sheets¹, defects log);

- The market participant's test data and results are produced from its 'acceptance' test environment;
- The market participant's test environment used for the Readiness Testing Process is representative of its production environment (i.e. the test environment is effectively a mirror image of the production environment, but may not be specified to production standards);
- The resources necessary to participate in the market are available. Necessary resources should include: systems, processes, software and personnel (sufficiently trained in respect to the market processes and systems). Necessary resources also include satisfactory vendor support arrangements being in place;
- Business processes and systems are ready for normal and exception management operations in the SA and/or WA gas retail markets (i.e. in addition to having in place processes/procedures/systems for compliance with IT relevant *market procedures/rules*, a market participant has in place processes/procedures/systems to comply with non-IT relevant *market rules*);
- The participant has appropriate contractual arrangements in place for entry into either the SA and/or WA gas retail markets;
- The participant has a transition plan in place for data migration and other activities required to move from testing to production; and
- The participant has in place disaster recovery and business continuity planning procedures applicable to SA/WA market activities.

~~The Market Operator~~ [AEMO](#) will provide self-certification forms to market participants for completion.

2.3 Industry Testing

[AEMO](#) ~~The Market Operator~~ will, following consultation with the existing market participants, require that the new entrant market participant undertake a defined series of tests based on the 'Industry Testing' tests completed by market participants prior to the start of either the SA or WA Gas Retail Market.

3 Obligations on a Market Participant or ~~the Market Operator~~ [AEMO](#) making significant changes to its existing systems and processes

If an existing market participant makes significant changes to its systems or processes, which have the potential to have an adverse impact on other market participants, then that market participant is required to inform ~~the Market Operator~~ [AEMO](#) of the potential impact on either the SA or WA Gas Retail Market prior to those changes being made. In addition, if ~~the Market Operator~~ [AEMO](#) makes

¹ ~~The Market Operator~~ [AEMO](#) is anticipating that participants will provide user acceptance testing results sheets.

significant changes to its systems or processes, which have the potential to have an adverse impact on market participants, ~~the Market Operator~~ [AEMO](#) will inform the market participants of the potential impact on the relevant Gas Retail Market prior to those changes being made.

Such changes may, for example, include the migration from manual to automated processes or the replacement of back-end systems.

It is expected that a market participant and ~~the Market Operator~~ [AEMO](#) would meet this obligation as part of the standard impact assessment process routinely carried out in organisations planning changes of this type.

In carrying out any system configuration changes, a market participant must ensure that its ~~Market Operator~~ [AEMO](#) certification remains valid. The obligations of a participant in relation to Technical Certification following system changes are defined in the Connectivity Testing and Technical Certification document. ~~The Market Operator~~ [AEMO](#) must also ensure its required Technical certification remains valid.

Depending on the nature and magnitude of the planned change, ~~the Market Operator~~ [AEMO](#) may, following consultation with the existing market participants, request that additional testing is carried out. This may, for example, take the form of a defined series of industry tests covering high-priority test scripts.

Of course any market participant carrying out significant changes may choose to organise additional testing with ~~the Market Operator~~ [AEMO](#) and/or the appropriate market participants.



B2B Service Order Specifications Pt 1 Job Enquiry Codes – Data Elements

For the SA and WA Gas Retail Markets

Version: 2.23
Last Update: 1 October 2010

Version History

Version	Date	Author(s)	Changes and Comments
Draft	14/1/04	B. Eaves	Draft for comment
1.0	183/04	B. Eaves	<p>First formal release.</p> <p>Changed to Word format</p> <p>Service Order Request Elements - South Australia</p> <ul style="list-style-type: none"> • Change to general usage notes for NMI. • ContactDetail/PersonName and ContactDetail/Phone Number are Required for SCR unless the Plumber's or Builder's details are provided in the SORDSpecialComments/CommentLine • CustomerCharacterisation changed to Optional for MCH not Required • General usage notes for COCNumber, PlumberLicenceNumber and StartWorkNoticeNumber aligned with notes in BSB SID. <p>Service Order Response Elements - South Australia</p> <ul style="list-style-type: none"> • Removed/MeterRead/Current/IndexValue is Optional for SDR (the meter would have been removed previously) • New meter details are optional for MDO and MDM – but must be provided if a new meter is fitted as part of service order completion. <p>Service Order Request Elements - Western Australia</p> <ul style="list-style-type: none"> • Modifications to general usage notes for LoadDetails/PerHour, MeterInletPressure and COCNumber to align with B2B SID • Modifications to PlumberLicenceNumber for RML, MTN and RSD both general usage notes and change from Required to Optional. <p>Service Order Response Elements - Western Australia</p> <ul style="list-style-type: none"> • Modifications to NMI in relation to DFC - general usage notes and change from Required to Optional • Changes to Network Operator's Work Request Number now Mandatory for RML, MTN and RSD and optional for DFC and OTH • Removed/MeterSerialNumber and Removed/MeterRead/Current/IndexValue changed to Required for SDR and MRT • New meter information changed to Required for MRT • Current/MeterRead/Current/ IndexValue changed to Optional for SDR and Not Required for MRT. • Usage for new elements AccessDetails, Dog

Version	Date	Author(s)	Changes and Comments
			Code and Meter Position added. <ul style="list-style-type: none"> MRT added to Read Reason Codes INI and REM "Estimate if no access" deleted from SRF.
2.0	3/5/04	B. Eaves	Service Order Request and Response Elements – South Australia <ul style="list-style-type: none"> OTH added as a job Enquiry Code Service Order Response Elements – South Australia <ul style="list-style-type: none"> Current/MeterRead/Current/ IndexValue and New /MeterRead/Current/ IndexValue changed to Not Required for SDR (B2B WG – 28/4/04) Service Order Request Elements – Western Australia <ul style="list-style-type: none"> Changes to COCNumber, PlumberLicenceNumber and StartWorkNoticeNumber. (CR 9) Service Order Response Elements – Western Australia <ul style="list-style-type: none"> ServiceProviderReference changed to mandatory for DSC and OTH (CR13) Current/MeterRead/Current/ IndexValue changed to Not Required for SDR (CR12) AccessDetails for MCH changed to Optional (CR14) Modifications to LoadDetailsPerHour to reflect the constraints of the aseXML schema. Usage notes amended and also LoadDetailsPerHour made optional for RML,MTN and RSD (in lines with PlumberLicenceNumber) PlumberLicenceNumber made NR for AML,MRM,DSD and also SDR.
2.1	1/6/05	REMCo	Service Order Response Elements – Western Australia <ul style="list-style-type: none"> Updates to General Usage Notes for New/BasicMeter/NextScheduledReadDate and New/BasicMeter/ScheduledReadingDayNumber in accordance with change request C33/04R (WA Only). Updates in accordance with parts 1, 3 and 4 of rule change C22/04S (WA Only).
2.2	1/10/10	T Sheridan	Updated to reflect the relevant Market Operator requirements following the transfer of REMCo's SA retail market operations to AEMO.
2.3	TBA	D. McGowan	Update to include: WA <ul style="list-style-type: none"> C02/16C – REMCo to AEMO transition changes. SA <ul style="list-style-type: none"> IN029/16 – REMCo to AEMO transition

Version	Date	Author(s)	Changes and Comments

Preamble:

This document has been modified to comply as closely as possible with the jurisdictional conditions of both the South Australian and Western Australian gas retail markets in place since 1 October 2009. The reader needs to be aware of the following changes:

- (a) Several terms have been changed to a general term where possible with a market specific definition; and
- (b) In the interests of keeping new terms and acronyms to a minimum, the original word has been italicised where possible to indicate that its definition again depends on its location.

This approach is to promote interchange ability in these documents for the benefit of stakeholders from both states.

The terms and there relevant definitions are as follows:

Term:	South Australian Market Definition:	Western Australian Market Definition:
Market Operator	AEMO	REMCo
Retail Market Rules (RMR)	Retail Market Procedures	Retail Market Rules

For more information please contact the Market Operator in your state:

	AEMO	REMCo
Website:	http://www.aemo.com.au	http://www.remco.net.au

[illegible]

Service Order Response Elements - South Australia		92 – Meter Fix Complete	93 – No Access to Complete Meter Fix	104 – No Access to Complete Meter Change	108 – Meter Change Completed	"125 – Meter Upgrade Completed & 321 Upgrade Meter Size Complete"	154 – No Access to Complete Meter Removal	157 – Meter Removal Complete	311 - Service Connection Complete	313 - Service Disconnection Complete	317 - Relocate Service Complete	319 - Upgrade Service Size Complete	315 - Service Orders Completed for Priority A - K	"Meter Damaged, Meter Defective Ordinary Operation"	Meter Refix	Meter Refix and Relight (With Gas)
Current/ MeterRead/ Current/ IndexValue	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.	O	O	O	O	O	O	O	O	NR	O	O	O	O	O	O
DateOfAttemptedAccess	Required for No Access response	O	R	R	O	O	R	O	O	O	O	O	O	O	O	O
JobCompletionCode1	Required if Service Order completed or attempted with No Access	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
JobCompletionCode2	Required if Service Order completed or attempted with No Access	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
JobCompletionCode3	Required whenever a meter is removed as part of the Service Order. Optional for other Service Order completion.	O	O	O	R	R	O	R	O	O	O	O	O	O	O	O
HeatingValue Zone	Not included in SA															
TransmissionZone	Not included in SA															
Distribution Tariff	Not included in SA															
Event	May be repeated any number of times. The Event element will identify any errors occurring in the processing of the request record.	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

Read Reason Codes	
SCH = Schedule Cycle Read (estimate if no access)	Only used for Scheduled Read MDNs
INI = Meter Installation Read	Used in MFX, MCH, MRF, MRR
REM = Meter Remove	Used in MRM, MCH
OSO = Other Service Order	All other Service Order types other than above mentioned
MDV = Meter Data Verify (residual)	Only used for MeterDataVerify MDNs
The following Read Reason Codes are not used in Service Order processes but only for Special Read Requests and Responses (and associated MDNs)	
SRF = Special Final Read, (estimate if no access)	
SRA = Special Account Investigation,	
SRT = Special Transfer Read	
SRR = Special Reference Read,	
SRD = Special Disconnection	

Service Order Request Elements - Western Australia		Meter & Service Connection Request Cluster Development Emergency Change Over	Upgrade Meter and or Service Request	Apply Meter Lock Regulator Removal Request Disconnect Service in Street	Remove Meter Lock Regulator Reinstall Request Reconnect Service in Street	Permanent Service Disconnection Request	Meter Retake and Test	Dissatisfied Customer	Other
Data Elements	General Usage Notes	SCR CLT ECO	UMS	AML MRM DSD	RML MTN RSD	SDR	MRT	DFC	OTH
actionType	"New" for New Service Order "Cancel" for Service Order Cancellation. Implemented as an attribute of the ServiceOrderRequest aseXML element.	M	M	M	M	M	M	M	M
NMI	Must be provided if the Service Order is related to a specific NMI	NR	R	R	R	R	R	O	R
checksum	Required if NMI is populated. Implemented as an attribute of the NMI aseXML element	NR	R	R	R	R	R	O	R
ServiceOrder/ Address	Required if NMI is not populated, otherwise Not Required. Implemented in the aseXML "Address" structured format.	R	NR	NR	NR	NR	NR	O	NR
JobEnquiryCode	Used by Network Operator to determine work requirement and priority	M	M	M	M	M	M	M	M
ServiceOrderNumber	Reference number generated by the User	M	M	M	M	M	M	M	M
AccessDetails	Optional field that may be populated at CSR discretion	O	O	O	O	O	O	O	O
MelwayGridReference	Not populated in WA.	NR	NR	NR	NR	NR	NR	NR	NR
ContactDetail/ PersonName	Compulsory for SCR, CLT or ECO and should include either consumer (for existing home) or builder. For DFC provide details of party complaining. Implemented in the aseXML "PersonName" structured format. Not to be retained in any Network Operator system as a permanent reference.	R	O	O	O	O	O	R	O
ContactDetail/ PhoneNumber	Compulsory for SCR, CLT or ECO and should include either consumer (for existing home) or builder. For DFC provide details of party complaining. Implemented in the aseXML "AustralianPhoneNumber" structured format. Not to be retained in any Network Operator system as a permanent reference.	R	O	O	O	O	O	R	O
AppointmentDetail/ Preferred/ Date	Mandatory for all SO	M	M	M	M	M	M	M	M
AppointmentDetail/ Preferred/ Time	Not used in WA	NR	NR	NR	NR	NR	NR	NR	NR
SORDSpecialComments/CommentLine	Required for DFC to provide detail of complaint (ore reference to email, etc.), optional for all other SO, field may be populated at the CSR discretion	O	O	O	O	O	O	R	R
CustomerCharacterisation	Not used in WA	NR	NR	NR	NR	NR	NR	NR	NR
LoadDetails/PerHour	This value must be populated for JobEnquiryCode SCR, ECO, CLT and UMS. The value used must be the anticipated maximum hourly load in MJ. For compliance with the schema, if a PlumberLicenceNumber is provided, then LoadDetails/PerHour must be populated. For new installations, the LoadDetails/PerHour shall reflect the actual requirement. for re-instatement of service after a period greater than 730 days, the LoadDetails/PerHour shall be populated with '0'.	R	R	NR	O	NR	NR	NR	NR
LoadDetails/PerAnnum		O	O	NR	NR	NR	NR	NR	NR
MeterInletPressure	This value must be populated for JobEnquiryCode SCR, ECO, CLT and UMS. The value used must be the required meter inlet pressure which will be defaulted to 2.75 kPa or (1.25 kPa in low pressure areas).	R	R	NR	NR	NR	NR	NR	NR
COCNumber	Required in WA for SCR or CLT if there are type B appliances. Populate with the GF licence number (numeric component only) of the party responsible for appliance certification. In all other cases, if the PlumberLicenceNumber is populated, for compliance with aseXML schema, the COCNumber is required in transactions but must be '0'.	R	O	O	O	O	NR	NR	
PlumberLicenceNumber	Must be populated with the last 5 digits of the numeric component of the gas fitter. Licence number for SCR, ECO and CLT and for RML, MTN and RSD if the MIRN has been decommissioned for > 730 days.	R	O	NR	O	NR	NR	NR	
StartWorkNoticeNumber	Not used in WA	NR	NR	NR	NR	NR	NR	NR	NR
DateTimeCSRAccessedCustomerRecord	Mandatory for all SO	M	M	M	M	M	M	M	M
DateTimeCSRProcessedTransaction	Mandatory for all SO	M	M	M	M	M	M	M	M

Note that the following types of service orders are not used in WA as request from the user: MFX, MCH, USR, RSR, MAP, MBO, MDM, MDO, MFXA, MHA, MRC, MRF, MRG, MRR, MST, MTE,

Service Order Response Elements - Western Australia		Meter & Service Connection Request Cluster Development Emergency Change Over	Upgrade Meter and or Service Request	Apply Meter Lock Regulator Removal Request Disconnect Service in Street	Regulator Reinstall Request Remove Meter Lock Reconnect Service in Street	Permanent Service Disconnection Request	Meter Retake and Test	Dissatisfied Customer	Other	Meter Change Completed
Data Elements	General Usage Notes	SCR CLT ECO"	UMS	AML, MRM DSD	RML MTN RSD	SDR	MRT	DFC	OTH	MCH
responseType	""Initial"" for initial response ""Closure"" when Service Order is close. Implemented as an attribute of the ServiceOrderResponse aseXML element."	M	M	M	M	M	M	M	M	M
NMI	Required in all cases except DFC (where NMI is not required if the Service Order Request was not related to a specific NMI)	R	R	R	R	R	R	O	R	R
checksum	Required if MIRN is populated. Implemented as an attribute of the MIRN aseXML element	R	R	R	R	R	R	O	R	R
Address	"Required if MIRN not populated. Implemented in the aseXML ""Address"" structured format"	NR	NR	NR	NR	NR	NR	O	NR	NR
JobEnquiryCode	Used by Network Operator to determine work requirement and priority	M	M	M	M	M	M	M	M	M
ServiceOrderNumber	User's Reference Number. Required when Service Order was initiated by a User and the number was provided by a user in the initial SO request. For implied SO equals the transfer request ID allocated by REMC CoAEMO	R	R	R	R	R	R	R	R	R
ServiceProviderReference	Network Operator's Work Request Number	M	M	M	M	M	M	M	M	M
AppointmentDetail/ Preferred/ Date	Not used in WA	NR	NR	NR	NR	NR	NR	NR	NR	NR
AppointmentDetail/ Preferred/ Time	Not used in WA	NR	NR	NR	NR	NR	NR	NR	NR	NR
DateServiceOrderCompleted	Required if Service Order completed	O	O	O	O	O	O	O	O	R
TimeServiceOrderCompleted	Optional if Service Order completed	O	O	O	O	O	O	O	O	O
Removed/ MeterSerialNumber	Required whenever a meter is removed as part of the Service Order completion	NR	NR	NR	NR	R	R	NR	NR	R
Removed/ MeterRead/ Current/ IndexValue	"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. "	NR	NR	NR	NR	R	R	NR	NR	R
New/ MeterSerialNumber	Required whenever a new meter is fitted as part of the Service Order completion	R	NR	NR	NR	NR	R	NR	NR	R
New/ PressureCorrectionFactor	Required whenever a new meter is fitted as part of the Service Order completion	R	NR	NR	NR	NR	R	NR	NR	R
New/ MeterTypeSizeCode	Required whenever a new meter is fitted as part of the Service Order completion	R	NR	NR	NR	NR	R	NR	NR	R
New/ MeterRead/ Current/ IndexValue	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.	R	NR	NR	NR	NR	R	NR	NR	R
New/ BasicMeter/ NextScheduledReadDate	Required whenever a new meter is fitted as part of the Service Order completion for basic meters only.	R	NR	NR	NR	NR	R	NR	NR	R
New/ BasicMeter/ ScheduledReadingDayNumber	Required whenever a new meter is fitted as part of the Service Order completion for basic meters only.	R	NR	NR	NR	NR	R	NR	NR	R
Current/ MeterRead/ Current/ IndexValue	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.	NR	R	R	R	NR	NR	O	O	NR

Note: If a meter change occurs as part of the completion of a UMS two service order responses occur (UMS + MCH)

VIC, QLD AND SA DEFINITION AND USAGE							VIC, QLD AND SA DEFINITION AND USAGE - RESPONSE ACTIVITIES				WA DEFINITIONS AND USAGE							
ENQUIRY CODE	BRIEF DESCRIPTION	DETAIL DESCRIPTION	PRIORITY	MIRN - mandatory (M) Not Required (N) NOTE - The values in this column is relevant to Retailer initiated Service Orders.	VALID REQUESTOR	For relevant Enquiry Codes, successful completion will result in the following MIRN and Meter status changes.	Completion Code Completed	Completion Code Can't do	Completion Code No Access	Completion Code Cancel	WA BRIEF DESCRIPTION	WESTERN AUSTRALIA DETAILED DESCRIPTION	MIRN	WA Comments	Completion Code Completed	Completion Code Can't do	Completion Code No Access	Completion Code Cancel
AML	Attach Locks/Plugs to Meter for Debt	Used to request attachment of Locks or Plugs (wad) to the meter when a customer has not paid account and Retailer has exhausted other avenues to recover debt. This will prevent use of gas.	C	M	Current FRO	MIRN status = Decommissioned, Meter status = Plugged. Meter physically plugged or locked,		10-98 74-30 74-98	70-30	74-98	Apply Meter Lock	Only used for applying Meter Locks. If meter cannot be locked will result in failure of SO. To escalate use MRM to remove regulator or DSD to cut Service. NO may also initiate for safety reasons and then provides the AML Service Order Response to the Current user. The successful completion of this service order will result in: meter valve physically locked, MIRN status = Decommissioned.	M	Only used for applying Meter Locks. If meter cannot be locked will result in failure of SO. To escalate use MRM to remove regulator or DSD to cut Service. NO does not care why, does not have to be for debt. NO may also initiate for safety reasons and provides the AML Service Order Response to the Current user	10-23	10-98	70-30	74-98
CLT (WA ONLY)		FHS, FSV and SNG									New Connection Cluster Development	Used to initiate a new connection on a strata titled property, the User needs to separately provide "Strata Management Approval". Note that no additional SCR or MFX service order request is required. The successful completion of this service order will result in: service and meter physically installed, with the meter valve possibly closed if the consumer installation is not commissioned. MIRN status = Commissioned		Used to initiate a new connection on a strata titled property, the User needs to separately provide "Strata Management Approval". Note that no additional SCR or MFX service order request is required.	10-78	70-30	Not Applicable	74-98
CSL	Critical Supply Loss (eg Hospital Equipment)	To be used where the loss of supply is life-threatening (such as when hospital equipment is affected), or when loss of supply could adversely affect the state's economy (major industry impacted).	A	N	Distributor Only		21-70 22-78 10-22 10-23-72	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
DFC	Dissatisfied Customer	When a customer contacts the Retailer with a complaint, the details are referred to the Distribution company so that they may investigate the customer's complaint.	K	N	Current FRO		21-03 48-79	48-98 74-30 74-98	70-30	74-98	Dissatisfied Customer	Used when a customer contacts the User with a complaint, and the complaint does not relate to the Users activities. The Network Operator will investigate the customer's complaint.	O	Used to report complaints related to Gas staff that have attended at a property. Used by retailer	48-78	48-98	70-30	74-98
DSD	Disconnect Service in Street for Debt	This may be requested by Retailer, or by Distributor as a matter of safety, when disconnection of supply is intended to be longer term due to non-payment of outstanding account by the customer. On occasion, access to the meter is not possible, or endangers the safety of the field personnel, and disconnection of supply can only be effected by disconnecting the service pipe in the street (or closing isolation valve).	D	M	Current FRO or Distributor	MIRN status = Decommissioned, Meter Status = Turned Off. Service physically plugged,	21-78	21-98 74-30 74-98	70-30	74-98	Disconnect Service in Street	Used to initiate when disconnection of supply when access to the meter is not possible, or endangers the safety of the field personnel, and disconnection of supply can only be effected by disconnecting the service pipe in the street (or closing isolation valve). NO may also initiate for safety reasons and then provides the DSD Service Order Response to the Current user. The successful completion of this service order is: Service physically disconnected, MIRN Status = Decommissioned.	M	Same Use in WA, reason may be other than Debt. NO may also initiate for safety reasons and provides the DSD Service Order Response to the Current user	21-78	21-98	70-30	74-98
EBD	Escape Bad	Any uncontrollable gas leak or presence of gas inside/under a house, other building or inside a basement - or - a severe escape outside a building not already covered by other A Priority codes. In determining the severity of an escape outside a building the operator must rely on the callers description considering factors such as length of time noticed, how strong or bad the odour is, can the gas be heard escaping etc. Special Instruction field must be populated with further detail.	A	N	Distributor Only		10-23-72 21-60 21-70 22-70 10-98	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
EBS	Escape Bad Street	A bad street escape is generally the result of a main or service pipe being broken by workmen involved in some form of excavation work. In most cases the broken pipe will already have been exposed by the workmen. Advise not to attempt to cover or hose the leak, keep bystanders away from the immediate area, and do not start or move machinery at the site (may ignite). Ground movement may also cause a main or service pipe to be broken resulting in a bad street escape.	A	N	Distributor Only		10-23-72 21-78 21-60	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
ECO (WA ONLY)											Emergency Change Over	Used to initiate a urgent new LOM connection to facilitate a customer switching from an electric to a gas HWS. This should only be used for residential customers. Note that no additional SCR or MFX service order request is required. The successful completion of this service order will result in: service and meter physically installed, with the meter valve possibly closed if the consumer installation is not commissioned. MIRN status = Commissioned		Used to initiate a urgent new LOM connection to facilitate a customer switching from an electric to a gas HWS. This should only be used for residential customers. Note that no additional	10-78	70-30	Not Applicable	74-98
EFB	Police and/or Fire Brigade	Used if notification of a fire or gas escape is received from either the Police or Fire Brigade.	A	N	Distributor Only		10-23-72 21-60 21-70 22-70	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call	Not Applicable	Not Applicable	Not Applicable	Not Applicable
EMG	Emergency	Used in situations that would require the use of prescribed emergency protocols.	A	N	Distributor Only		10-23-72 21-60 21-70 22-70 10-98	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
EMT	Escape Meter	When gas is reported escaping around the meter location. In many cases the gas escape can be controlled by turning off the gas meter. However if this does not stop the gas escaping it may be necessary depending on the degree of the gas escape to process the enquiry as an EBD.	B	N	Distributor Only		10-23-72 21-60 22-70 10-98	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should	Not Applicable	Not Applicable	Not Applicable	Not Applicable
EOT	Escape Other	Used for a controllable gas escape which does not warrant the use of an A Priority code, in a location not already identified by any other escape code. If the escape is not controlled or is severe the A priority code EBD should be used. Special Instruction field must be populated with further detail.	B	N	Distributor Only		10-23-72 21-60 22-70 21-70 10-98	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to	Not Applicable	Not Applicable	Not Applicable	Not Applicable
ESE	Street Excavations	Used when a caller reports an excavation, or the warning lights or barricade around an excavation or work site is considered unsafe – collapsed, or protection removed/damaged. (Now includes old ESB and ESL codes)	B	N	Distributor Only		N/A	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
EST	Escape Street	Refers to a slight escape in the street caused by a leaky joint or broken main. If the escape is more severe or the result of workmen excavating in the street, the enquiry code EBS should be used.	B	N	Distributor Only		10-23-72 22-70 21-60	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable

ENQUIRY CODE	BRIEF DESCRIPTION	DETAIL DESCRIPTION	PRIORITY	MIRN - mandatory (M) Not Required (N) NOTE - The values in this column is relevant to Retailer initiated Service Orders.	VALID REQUESTOR	For relevant Enquiry Codes, successful completion will result in the following MIRN and Meter status changes.	Completion Code Completed	Completion Code Can't do	Completion Code No Access	Completion Code Cancel	WA BRIEF DESCRIPTION	WESTERN AUSTRALIA DETAILED DESCRIPTION	MIRN	WA Comments	Completion Code Completed	Completion Code Can't do	Completion Code No Access	Completion Code Cancel
EXP	Explosion	An explosion in a main, Service Pipe, Fitting Line or Appliance. For explosions in Transmission Pressure main or facility refer to EMG.	A	N	Distributor Only		10-23-72 21-60 22-70 21-70 10-98	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
FAP	Fire Appliance	A fire can occur at a gas appliance without the appliance burning and it can spread to adjoining fixtures in the premises. If the appliance is the cause of the fire this enquiry code should be used.	A	N	Distributor Only		10-23-72 60-64 60-78	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
FAT	Fatalities	If fatal accident or serious injury has resulted from a problem in the gas reticulation network. This would include death caused by a gas escape, fire or explosion.	A	N	Distributor Only		10-23-72 10-98 10-78	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
FHS	Fire House	When a fire is reported at premises which has gas supplied. Fires reported by the fire brigade must be processed using this enquiry code.	A	N	Distributor Only		10-23-72 10-98 10-78	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
FMN	Fire Main	When a gas escape from a main has ignited. The gas escape may be the result of damage to the main during excavation in the street. A fire at a main can also be reported as a nature strip or road fire. Gas leaking from the underground main escapes to the surface and ignites.	A	N	Distributor Only		10-23-72	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
FMT	Fire Meter	While gas meters do not burn, (lead connections, meter gaskets and reg diaphragms can melt / burn fuelling fire) gas escaping from the meter can ignite, engulfing it in flames. This can be a threat to a premises, depending on the meter location.	A	N	Distributor Only		10-23-72 22-70 10-98 10-78	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
FSV	Fire Service	A customer reporting a fire in either yard may have a gas escape in either their Service Pipe or Fitting Line. If the fire is in the area between the premises and the gas meter, the fire could be the result of a gas escape in the Fitting Line. This type of escape can be made safe by turning off the gas meter. If the fire is in between the gas meter and the boundary of the premises, it should be treated as a FSV.	A	N	Distributor Only		10-23-72 22-70 10-98 10-78	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
MAP	Meter Alter Position	To be used when a customer is requesting the relocation of an existing gas meter to a new position. The customer must be provided a quote. NOTE: MAY REQUIRE OTHER DISTRIBUTOR SPECIFIC FORM DEPENDING ON METER SIZE.	J	M	Current FRO		21-78 21-70	21-55 21-46 21-04 21-03 21-98 74-30	70-30	21-98	not applicable	Not used as an automated SO in WA, consumers arrange this direct by calling the networks call centre who will provide them with contact details of authorised service agents who quote and deal direct with the consumer	NA	Not used as an automated SO in WA. This Job does not exist in WA, consumers arrange this by calling the networks call centre who will provide them with contact details of authorised service agents who quote and deal direct with the consumer	not applicable	not applicable	not applicable	not applicable
MBO	Meter Pre-Pay Broken	Not used in VIC, Qld or SA as there are no pre-pay meters in these jurisdiction.	N/A	N/A	N/A		N/A	N/A	N/A	N/A	not applicable	not applicable	NA	This Job does not exist in WA, we do not have pre-payment meters	not applicable	not applicable	not applicable	not applicable
MCH	Meter Change	A request to change the gas meter due to faults or time expiration.	F	M	Current FRO or Distributor		10-10-(31, 33, 34, 37, 44, 42, 45)	10-42 10-46 10-16 10-98 74-30	70-30	74-98	Meter Change	Only used as SO response, cannot be initiated by User. Successful completion will result in: Meter is physically replaced at premise, MIRN status = as before	M	Retailers cannot use this to initiate a meter change, as time expiry is managed by NO. For faults contact network call centre direct	10-10	10-98	70-30	74-98
MDM	Meter Damaged	A customer reports the meter has been damaged. Note: where the customer advises there is gas escaping as a result of the damage to the meter, the Retailer is to direct the call to the Distributor's faults and emergency number. The Distributor will treat this as a priority 'B' job. The Retailer is not required to raise the MDM.	F	M	Current FRO		10-10-(34, 42) 10-11-(72) 10-23-(72) 10-02	10-98 10-42 10-46 74-30	70-30	74-98	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
MDO	Meter Defective Operation Ordinary	This code is used for meters which are reported as having faults, but are not damaged. Eg: Noisy operations	F	M	Current FRO		10-78	10-98 10-42 10-46 10-16 74-30	70-30	74-98	Meter Defective Operation Ordinary	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	M	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	Not Applicable	Not Applicable	Not Applicable	Not Applicable
MTX	Meter Fix	Where a customer requests a meter to be connected to a premises where the gas main and service pipe are already connected. NOTE: MAY REQUIRE OTHER DISTRIBUTOR SPECIFIC FORM DEPENDING ON METER SIZE	D	N	Any Retailer	Meter is physically fixed at Premises, MIRN Status = Commissioned, Meter Status = Turned On. Or, In Vic and QLD only; Meter is physically fixed at Premises and left in a plugged state. MIRN Status = Decommissioned, Meter Status = Plugged.	10-12	10-37 10-40 10-42 10-46 10-98 74-30	70-30	74-98	not applicable	Not used in WA. For new connections a SCR initiates the installation of Service and Meter	NA	Not used in WA. For new connections a SCR initiates the installation of Service and Meter	not applicable	not applicable	not applicable	not applicable
MTXA	Meter Fix - Fault Rectified	Where a customer has requested a meter to be installed at a premises, however a fault has been detected with the fitting lines/appliances. The problem should be rectified and the code MTXA used to re-order the meter. Note: The preferred Enquiry Code is MTX Note: This Enquiry Code is not used in SA.	D	N	Any Retailer	Meter is physically fixed at Premises, MIRN Status = Commissioned, Meter Status = Turned On; or, Meter is physically fixed at Premises and left in a plugged state, MIRN Status = Decommissioned, Meter Status = Plugged.	N/A	N/A	N/A	N/A	Meter Fix - Fault Rectified	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	Not used in WA, consumer calls Network Operator emergency call centre direct	Not Applicable	Not Applicable	Not Applicable	Not Applicable

ENQUIRY CODE	BRIEF DESCRIPTION	DETAIL DESCRIPTION	PRIORITY	MIRN - mandatory (M) Not Required (N) NOTE - The values in this column is relevant to Retailer initiated Service Orders.	VALID REQUESTOR	For relevant Enquiry Codes, successful completion will result in the following MIRN and Meter status changes.	Completion Code Completed	Completion Code Can't do	Completion Code No Access	Completion Code Cancel	WA BRIEF DESCRIPTION	WESTERN AUSTRALIA DETAILED DESCRIPTION	MIRN	WA Comments	Completion Code Completed	Completion Code Can't do	Completion Code No Access	Completion Code Cancel
MHA	Meter High Account Complaint	Used to conduct a high account investigation i.e.: meter tested to see if falls within allowable limits. NOTE: REQUIRE'S INDUSTRY AGREED MHA/MRT REQUEST TEMPLATE TO BE SENT TO DISTRIBUTOR IN CONJUNCTION WITH SERVICE ORDER REQUEST NOTE: APA/ENVESTRA REMOVE THE METER FOR TESTING UPON RECEIPT OF MHA REQUEST. APPLIES IN ALL JURISDICTIONS. The meter being tested is NOT returned to the property after testing.	K	M	Current FRO		10-18	10-42 10-46 10-98 74-98 74-30	70-30	74-98	not applicable	Not used in WA, use MRT	NA	Not used in WA, use MRT	not applicable	not applicable	not applicable	not applicable
MRC	Interval Meter Removal	Where a customer has interval metering and associated equipment and wishes to remove the equipment, including the meter, the code MRO is requested against the MIRN related to the meter and/or associated Interval equipment to be removed. This will result in the removal of the associated interval equipment and meter from the corresponding MIRN.	J	M	Current FRO	MIRN Status = Decommissioned, Meter Status = no meter. Meter and interval equipment physically removed,	10-11-(55, 63)	10-98 74-98 74-30	70-30	74-98	not applicable	Not used in WA, very in frequent, If required Retailer to contact Network Operator and discuss	NA	Not used in WA, very in frequent, If required Retailer to contact Network Operator and discuss	not applicable	not applicable	not applicable	not applicable
MRF	Meter Refix	For simple (type A) installations: The MRF code is used to request refix of a meter at a site where the meter has previously been removed and there is currently an upstand only at the premises. MRF jobs which require a Certificate of Compliance number and Plumber Number. These details must be placed in the Special Instructions Field.	D	M	Any Retailer (VIC & QLD) Current FRO (SA)	Meter is physically fixed at Premise, MIRN Status = Commissioned, Meter Status = Turned On; or, Meter is physically fixed at Premise and left in a plugged state, MIRN Status = Decommissioned, Meter Status = Plugged	10-12 10-15	10-98 10-37 10-40 10-42 10-46 74-98 74-30	70-30	74-98	not applicable	not applicable	NA	Not used in WA, as we do not remove meter, but regulator	not applicable	not applicable	not applicable	not applicable
MRG	Meter Refix and Reight	Following work on the service line (eg. service renewal), the customer may still have gas supply to the appliances, however the meter needs to be refixed to the new service line. Note: MRR is the preferred code	E	M	Any Retailer	MIRN status = Commissioned, Meter status = Turned On. Meter may be physically fixed at premise,	10-02 22-70	10-42 10-46	70-30	74-98	not applicable	not applicable	NA	Not used in WA	not applicable	not applicable	not applicable	not applicable
MRM	Meter Remove	Meter removals can be performed at customers request or in situations where significant debt has been incurred and unlikely to be recovered or where a building is being demolished.	F	M	Current FRO	MIRN Status = Decommissioned, Meter Status = No meter. Meter is physically removed from premises,	10-11-(51, 53, 58, 72)	10-98 10-42 10-46 74-98 74-30	70-30	74-98	Remove Regulator	Initiates regulator removal. NO may also initiate for safety reasons and then provides the MRM Service Order Response to the Current user. The successful completion of this service order is: regulator physically removed, MIRN Status = Decommissioned.	M	Used in WA to initiate removal of Regulator. Meter remains at premises. NO may also initiate for safety reasons and provides the MRM Service Order Response to the Current user.	10-23	Not Applicable. use no access code	70-30	74-98
MRR	Meter Refix and Reight	Following work in the street or on the service line, it may be necessary to refix the gas meter and check the appliances. This process is used for customers who may or may not have gas supply to their appliances.	C	M	Any Retailer		10-02 10-15	10-98 74-98 74-30	70-30	74-98	not applicable	not applicable	NA	Not used in WA	not applicable	not applicable	not applicable	not applicable
MRT	Meter Retake and Test	Used to conduct a high account investigation i.e.: meter tested to see if it falls within allowable limits. Meter taken away for lab test. A new meter will be installed to allow the existing meter to be laboratory tested.-The meter being tested is NOT returned to the property after testing. NOTE: REQUIRE'S INDUSTRY AGREED MHA/MRT REQUEST TEMPLATE TO BE SENT TO DISTRIBUTOR IN CONJUNCTION WITH SERVICE ORDER REQUEST	K	M	Current FRO		10-18 10-10-(44)	10-42 10-98 74-98 74-30	70-30	74-98	Meter Retake and Test	Used to initiate a meter test to see if falls within allowable limits. The successful completion of this service order will result in: Meter physically replaced at the premise, MIRN Status as before	M	In WA this is commonly referred to as a meter test.	10-18	Not Applicable	70-30	74-98
MST	Meter Stolen	Advice that an installed gas meter has been reported stolen from a property. This will require initial investigation, and appropriate measures to make the area safe.	C	M	Any Retailer		10-11-(59)	N/A	N/A	N/A	not applicable	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	Not used in WA, If required Retailer to contact Network Operator by phone	not applicable	not applicable	not applicable	not applicable
MTE	Meter Turn-On, Cut-Off in Error	When a customer is disconnected in error a MTE job should be booked for reconnection.	C	M	Current FRO	MIRN Status = Commissioned, Meter Status = Turned On. The physical meter will be unplugged or locks removed.	10-02 10-22	10-98 74-98 74-30	70-30	74-98	not applicable	not applicable	NA	Not used in WA, use MTN	not applicable	not applicable	not applicable	not applicable
MTJ	Meter Tap Jammed	For safety reasons, the customer should be able to turn the gas supply off at the meter at any time. Should the meter tap be reported as jammed, a MTJ order should be raised in order to free it.	C	M	Any Retailer		22-70 22-78	22-98 22-03 22-42 74-98 74-30	70-30	74-98	Meter Tap Jammed	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	not applicable	Not Applicable	Not Applicable	Not Applicable
MTN	Meter Turn-On	This code is used to energise the gas supply to a site (eg: removing plugs or locks from a meter) that has temporarily been disconnected. Not to be used for a turn-on after debt if the same customer is being connected by the current FRO.	C	M	Any Retailer	MIRN Status = Commissioned, Meter Status = Turned on.	10-22	10-98 74-98 74-30	70-30	74-98	Reinstall Regulator	Initiates regulator reinstallation. NO may also initiate when disconnection for safety reasons is no longer applicable and then provides the MRM Service Order Response to the Current user. The successful completion of this service order is: regulator physically reinstalled, MIRN Status = Commissioned.	M	This will be used to reinstall the regulator removed with a MRM	10-22	Not Applicable	70-30	74-98
OTH	Other	This code is used where no other code is applicable. Not to be used as work around for system or process problems.-	E	N	Current FRO		various	various	various	various	Other	This code is used where no other code is applicable. Not to be used as work around for system or process problems. Note that completion code 74 - 30 will be used to close the job if "translation" to the correct JEC code is required.		Used for quotation Jobs??? Make clear not to be abused, NO may Nack	10-78	10-98	70-30	74-98
RML	Remove Locks/Plugs to Meter for Debt	Used to reinstate supply after AML.	C	M	Any Retailer (VIC & QLD) Current FRO (SA)	MIRN status = Commissioned, Meter Status = Turned on. Plugs and locks physically removed from the meter.	10-22	10-42 10-98 74-98 74-30	70-30	74-98	Remove Meter Lock	Used to request removal of Locks from the meter. NO may also initiate when disconnection for safety reasons is no longer applicable and then provides the RML Service Order Response to the Current user. The successful completion of this service order will result in: locks physically removed from the meter valve, MIRN status = Commissioned.	M	In WA this only relates to a remove meter lock. To reinstall a regulator use MTM	10-22	Not Applicable	70-30	74-98
RSD	Reconnect Service in Street after payment	Used to request reconnection of gas supply, previously disconnected in the street.	D	M	Current FRO	MIRN status being "Commissioned" and Meter Status "Turned On".	21-78	21-98 74-98 74-30	70-30	74-98	Reconnect Service in Street	Used to request reconnection of gas supply, previously disconnected in the street. NO may also initiate when a previous disconnection for safety reasons has been resolved and then provides the RSD Service Order Response to the Current user. The successful completion of this service order is: Service physically reconnected, MIRN Status = Commissioned.	M	not specific re payment	21-78	Not Applicable	70-30	74-98
RSR	Relocate Service Only Request	Used where the customer requires only the service pipe to be relocated. This does not include relocation of the gas meter.	J	M	Current FRO		21-78	21-98 74-98 74-30	70-30	74-98	not applicable	not applicable	NA	This Job does not exist in WA, consumers arrange this by calling the networks call centre who will provide them with contact details of authorised service agents who quote and deal direct with the consumer	not applicable	not applicable	not applicable	not applicable

ENQUIRY CODE	BRIEF DESCRIPTION	DETAIL DESCRIPTION	PRIORITY	MIRN - mandatory (M) Not Required (N) NOTE - The values in this column is relevant to Retailer initiated Service Orders.	VALID REQUESTOR	For relevant Enquiry Codes, successful completion will result in the following MIRN and Meter status changes.	Completion Code Completed	Completion Code Can't do	Completion Code No Access	Completion Code Cancel	WA BRIEF DESCRIPTION	WESTERN AUSTRALIA DETAILED DESCRIPTION	MIRN	WA Comments	Completion Code Completed	Completion Code Can't do	Completion Code No Access	Completion Code Cancel
SBS	Bad Supply	This describes a gas supply which fluctuates intermittently depending on the time of use.	F	M	Any Retailer		10-23-(72) 10-22 21-70 21-78 22-70 22-78 21-60	21-98 22-98 28-55 74-30 74-98	70-30	74-98	Bad Supply	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	not applicable	Not Applicable	Not Applicable	Not Applicable
SCR	Service Connection Request	Used for requesting a new service pipe as part of a new connection. This should be used regardless of the size of the gas load. Also, note that a separate service order request is required for the installation of the gas meter (eg. MFX). NOTE: MAY REQUIRE OTHER DISTRIBUTOR SPECIFIC FORM DEPENDING ON METER SIZE.	J	N	Any Retailer		21-78	21-98 74-30 74-98	70-30	74-98	New Connection Request	Used for requesting a new connection. Should not be used for Emergency Change Over or Cluster Development. This should be used regardless of the size of the gas load. Also, note that no separate service order request is required for the installation of the gas meter. The successful completion of this service order will result in: service and meter physically installed, with the meter valve possibly closed if the consumer installation is not commissioned. MIRN status = Commissioned		This initiates both the service and the initial meter installation, there is no separate service order request required for the installation of the gas meter. Cannot be used to initiate a connection to a cluster development or and emergency change over	10-78	70-30	Not Applicable	74-98
SDR	Service Disconnection Request	Used to request the "permanent" removal or disconnection of the service pipe from the property. This should only occur after a Service Order for MRM (Remove Meter) has been requested as the Meter should have been removed prior to the receipt of the SDR or in conjunction with the SDR Request. (Two separate Service Orders)	J	M	Current FRO	MIRN Status = Deregistered Meter Status = "No Meter".	21-78	21-98 74-30 74-98	70-30	74-98	Deregistration Request	Initiates the "permanent" removal of the Meter and ends the association of the User with the MIRN. Does not require a prior MRM. The successful completion of this Service Order results in the MIRN Status = Deregistered	M	This initiates a deregistration of the MIRN and results in the meter/regulator (and at the Network Operators Discretion the service) being removed	21-78	Not Applicable	70-30	74-98
SNG	No Gas	This describes a situation where a customer reports that the gas supply to each appliance in the premises has stopped.	C	M	Any Retailer		10-23-(72) 10-22 21-70 21-78 22-70 22-78	21-98 28-55 74-30 74-98	70-30	74-98	No Gas	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	not applicable	Not Applicable	Not Applicable	Not Applicable
SPN	Practically No Gas	This describes a situation where a customer is receiving poor supply of gas 24 hours a day. This can be identified by low pressure at cooker burners, or a reduction in the gas supply when two appliances are operating.	E	M	Any Retailer		10-23-(72) 10-22 21-70 21-78 22-70 22-78	21-98 28-55 74-30 74-98	70-30	74-98	Practically No Gas	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	not applicable	Not Applicable	Not Applicable	Not Applicable
UEF	Upstream Equipment fault	A fault has been detected in an upstream appliance or equipment. (eg. Unmetered gas light, Scada housing, or other network equipment). If there is a leak at the equipment this should be registered as EBD or EOT.	C	M	Current FRO		10-23-(72) 21-78	21-98 74-30 74-98	70-30	74-98	Upstream Equipment fault	Not used in WA as User does not initiate "fault" SO. If equipment or the equipment state is altered on site due to a Fault response a Network Operator initiated SO will be raised and the User will get a SO response, which could be a MCH, AML, MRM or DSD as applicable	NA	This is a Fault and must be raised by the customer directly to the networks 24 hour emergency call centre, retailer should transfer any faults calls to the NO	not applicable	Not Applicable	Not Applicable	Not Applicable
UMS	Upgrade Meter Size Request	Used where the increased gas load requires a larger capacity meter to be installed. If a change to an existing service is required this should be requested through a separate service order. NOTE: MAY REQUIRE OTHER DISTRIBUTOR SPECIFIC FORM DEPENDING ON METER SIZE.	J	M	Current FRO		10-10-(47)	10-98 74-30 74-98	70-30	74-98	Upgrade Meter Size or Pressure	Used to initiate a meter set pressure change and/or meter size change (including as required a service size upgrade) NO may initiate SO response where the meter pressure is changed for a non-meter set meter. MIRN Status typically remains as Commissioned	M	Includes upgrade of Service as required, also used as SO response for upgrade pressure	10-10	10-98	70-30	74-98
USR	Upgrade Service Request	Used when the increased gas load requires a larger capacity of service line to be installed. NOTE: MAY REQUIRE OTHER DISTRIBUTOR SPECIFIC FORM DEPENDING ON METER SIZE.	J	M	Current FRO		21-78	21-98 74-30 74-98	70-30	74-98	not applicable	not applicable, refer UMS	M	Not used, part of UMS	not applicable	not applicable	not applicable	not applicable

FRC HUB OPERATIONAL TERMS AND CONDITIONS

PREPARED BY:

DOCUMENT REF:

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DATE: ~~17 May 2015~~ TBA

~~FINAL~~ DRAFT

DOCUMENT HISTORY

Version	Date	By	Notes
7.0	17/05/2015	Allan Ng	Revised due to the FRC HUB Update Project
8.0	31/10/2016	Danny McGowan	Update to include: WA <ul style="list-style-type: none">• C02/16C – REMCo to AEMO transition changes. SA <ul style="list-style-type: none">• IN029/16 – REMCo to AEMO transition

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1. DOCUMENT PURPOSE

This document sets out the FRC HUB Operational Terms and Conditions for the FRC HUB (**Terms and Conditions**).

If there is any inconsistency between this document and the jurisdictional Retail Market Procedures (as applicable) ~~and the Retail Market Rules in Western Australia~~, the Retail Market Procedures ~~and Retail Market Rules~~ will prevail to the extent of that inconsistency.

Words and phrases in this document which appear in *italics* have the meaning given to them under the jurisdictional Retail Market Procedures (as applicable) ~~and under the Retail Market Rules in Western Australia~~ unless an intention to the contrary appears.

1.1 Recitals

- 1.1.1 AEMO and each *Subscriber* will use their best endeavours to provide the *FRC HUB* services in accordance with these FRC HUB Operational Terms and Conditions.
- 1.1.2 For the avoidance of doubt, in deciding whether AEMO or *Subscriber* have used best endeavours, regard must be had to all relevant factors including whether they have acted in good faith and have done, and continue to do, what is reasonably necessary in the circumstances.

2. DEFINITIONS

FRC HUB means the information system provided by AEMO for the transmission of aseXML messages under the jurisdictional Retail Market Procedures ~~and the Retail Market Rules in Western Australia~~.

Recovery Point Objective, RPO is defined as the maximum tolerable period in which market data might be lost from an IT service due to a major incident.

Recovery Time Objective, RTO is the targeted duration of time / service level agreement within which market operational processes must be restored by.

Subscriber means any business that sends or receives transactions via the *FRC HUB*.

3. AEMO RESPONSIBILITIES AS FRC HUB SERVICE PROVIDER

3.1 Amending the FRC HUB Operational Terms and Conditions

- 3.1.1 Prior to implementing changes to these FRC HUB Operational Terms and Conditions, AEMO must consult on the proposed changes with all *Subscribers*.
- 3.1.2 AEMO must allow a reasonable time to receive *Subscriber* responses to the proposed changes to the FRC HUB Operational Terms and Conditions.

3.2 Performance

- 3.2.1 AEMO will route 99.99% of all messages through the *FRC HUB* within 10 minutes of receipt except:
 - (a) where the *FRC HUB* is unavailable due to a scheduled outage with a target notification time of at least two business days; or
 - (b) under a fail over process; or
 - (c) where the delayed messages are in excess of the peak performance requirement of 8 approx 5KB messages/sec.
- 3.2.2 AEMO will support a peak throughput of 8 approx 5KB messages per second through the *FRC HUB*.

3.3 Availability / Redundancy

- 3.3.1 All AEMO performance services levels defined under the FRC HUB Operational Terms and Conditions are subject to normal operational availability and optimal performance of third party delivered services which are outside the control of AEMO.
- 3.3.2 The AEMO will operate the *FRC HUB* with a Recovery Point Objective (RPO) of 24 hours.
- 3.3.3 The AEMO will operate the *FRC HUB* with a Recovery Time Objective (RTO) of 4 hours.
- 3.3.4 AEMO will provide an *FRC HUB* message delivery service that is available as per Table 1, less scheduled downtime.
- 3.3.5 All reference to time in these FRC HUB Operational Terms and Conditions mean Australian Eastern Standard Time (AEST), with the exception for references to business hours in Table 1, 3 and 4 which mean the business hours specified in the market for that jurisdiction.
- 3.3.6 AEMO will test successfully production fail-over to and fail-back from disaster recovery at least every six months and report results to *Subscribers* within one calendar month.

TABLE 1

PERIOD	UPTIME %
Business Hours Mon -Fri (excluding Public Holidays)	99.6
Non-Business Hours Mon - Fri (excluding Public Holidays)	98.0
Sat, Sun (starting 0:00 Sat and finishing 7:00 am Mon) Public Holidays	95.0

Business Hours are defined as 7am to 7pm Monday to Friday.

Non-Business Hours are defined as 7pm to 7am Monday to Thursday, 7pm to 11:59pm Friday.

Public Holidays include National Public Holidays and those defined in the Public Holidays Act 1993 (Vic). (Note: this does not include Melbourne Metropolitan holidays such as Melbourne Cup Day).

3.4 Auditing Logging and Archiving

- 3.4.1 AEMO will maintain detailed logs of all messages transmitted through the *FRC HUB*. These logs will include sufficient information to assist in resolving disputes that may arise regarding the transmission of a message and its payload.
- 3.4.2 AEMO will use XML digital signature technology to provide complete non-repudiation of gateway-to-gateway delivery and receipt, of message and payload data.
- 3.4.3 AEMO will timestamp all messages on transmission by the *FRC HUB* providing complete data on transmission latencies directly to *Subscribers*.
- 3.4.4 AEMO will ensure that the *FRC HUB* logging facilities will provide time information on receipt and sending times, and be capable of generating complete and accurate data about *FRC HUB* transit times.
- 3.4.5 AEMO will not store any data that causes a breach of Privacy Laws applicable in a *Subscriber's* jurisdiction.
- 3.4.6 AEMO will store logged data, transmitted through the *FRC HUB* online for at least one week.
- 3.4.7 AEMO will provide a message archiving facility for all messages transmitted through the *FRC HUB*.
- 3.4.8 Reasonable costs for recovery of archived data may be paid by the requesting party. AEMO will only provide access to archived data to which the requesting party is entitled.

3.5 Security

- 3.5.1 AEMO and each *Subscriber* will, with the exception of error messages, sign all messages transmitted via the *FRC HUB* with X509v3 compliant digital certificates.
- 3.5.2 AEMO will verify messages signed with X509v3 compliant digital certificates.
- 3.5.3 AEMO will reject messages and acknowledgments transmitted to the *FRC HUB* with an unsigned payload.
- 3.5.4 AEMO will use the *FRC HUB* to hold a certificate containing the public key of each *Subscriber*.
- 3.5.5 AEMO will reject any message transmitted to the *FRC HUB* with an invalid digital signature, or that has an incorrectly populated signature block.
- 3.5.6 AEMO will verify each signed message transmitted to the *FRC HUB*, using the public key of the sending *Subscriber* and re-sign the message with its own private key before forwarding the message to the recipient.
- 3.5.7 Each *Subscriber* must hold the *FRC HUB*'s public key available in the form of an X509v3 certificate.
- 3.5.8 AEMO and each *Subscriber* will ensure that all messages routed through the *FRC HUB* carry transport layer encryption using 128 bit SSL encryption using X509v3 private keys and digital certificates.
- 3.5.9 AEMO will set the key pairs used by the *FRC HUB* transport layer encryption to be the same ones used in digital signing and verification.
- 3.5.10 AEMO will house Production hubs in physically secure environments with controlled access.
- 3.5.11 AEMO will log all security incidents and report all incidents to affected *Subscribers* within one business day of detection of the incident.
- 3.5.12 AEMO will separate geographically the Production and disaster recovery hubs by more than two kilometres.
- 3.5.13 AEMO will perform a nightly backup of Production and Pre-Production hubs
- 3.5.14 AEMO will store backup data in a secure off-site location.

3.6 Testing Environment

- 3.6.1 AEMO will provide a testing gateway within the Pre-Production environment for use by *Subscribers* which will be available at all times apart from scheduled and unscheduled outages.
- 3.6.2 AEMO will ensure that the testing gateway will provide an aseXML transaction acknowledgement to the initiator of all transactions delivered to the Pre-Production environment.

- 3.6.3 AEMO will configure the testing gateway to perform aseXML validations against the interface definitions detailed in the Procedures, or subordinate instrument (e.g. the Gas Interface Protocol or Specification Pack) applicable in a *Subscriber's* jurisdiction.
- 3.6.4 AEMO will configure the testing gateway to apply applicable business rules defined in the jurisdictional Retail Market Procedures ~~and Retail Market Rules for Western Australia~~ to incoming transactions.
- 3.6.5 AEMO will provide a management interface to the testing gateway to allow *Subscribers* to validate an aseXML document.

3.7 Protocol Support

- 3.7.1 AEMO will deploy a reliable messaging system that will identify the status of all transmitted messages at the *FRC HUB* gateway.
- 3.7.2 AEMO will ensure that the *FRC HUB* will conform as a routing application in terms of the ebXML Message Service Specification ver 1.0 or as updated by an industry-agreed change management process.
- 3.7.3 AEMO will ensure that the *FRC HUB* will transmit and receive messages using the secure HTTP/S protocol.
- 3.7.4 AEMO will ensure that the *FRC HUB* uses the deployed public key infrastructure and authenticates all message senders as being registered *Subscribers*.
- 3.7.5 AEMO will ensure that deregistered or prospective *Subscribers* will not be authenticated to send production messages and that the *FRC HUB* will not transmit messages from such parties, or from any other party attempting to interoperate using a non-valid digital certificate.
- 3.7.6 AEMO will ensure that the *FRC HUB* will not modify a message payload (the aseXML document) in any way.

3.8 Network Infrastructure

- 3.8.1 AEMO will ensure that the *FRC HUB* will provide *Subscribers* with the ability to communicate with the *FRC HUB* via the Internet, or the market network (MarketNet).
- 3.8.2 AEMO will ensure that the *FRC HUB* provides minimum bandwidth connectivity to the *FRC HUB* of 1Mbps.
- 3.8.3 AEMO and each *Subscriber* will ensure the gateway services are connected to the *FRC HUB* via a service based on a minimum bandwidth of 500kbps. This service may be a shared service.

3.9 FRC HUB Administration

- 3.9.1 Upon request, AEMO will provide, to the *Subscriber*, details of a *Subscriber's* own *FRC HUB* profile.

- 3.9.2 The *FRC Hub*'s management interface will allow *Subscribers* to validate that messages have been sent to intended recipients.
- 3.9.3 AEMO will monitor, analyse, and report performance levels of the *FRC HUB*, as set out in Section 3, to all *Subscribers* on a monthly basis.
- 3.9.4 AEMO will provide detailed reports to *Subscribers* about any abnormality that affects *FRC HUB* availability via the FRC relay notification facility.
- 3.9.5 AEMO will ensure that the *FRC HUB* environment will be under a controlled change management process. This process will ensure that proposed changes are communicated to *Subscribers* and scheduled appropriately. Changes that require downtime will be scheduled with defined periods.
- 3.9.6 AEMO will ensure that the *FRC HUB* change management process will be designed to have maximum protection of *FRC HUB* availability and service quality while providing minimum impact on *Subscribers*.

3.10 Certification

- 3.10.1 AEMO will provide a certification gateway, to support the certification of *Subscriber* compliance with requirements specified in the Retail Market Procedures ~~and Retail Market Rules for Western Australia~~, or its subordinate instruments (e.g. the Gas Interface Protocol or Specification Pack) applicable in a *Subscriber's* jurisdiction.
- 3.10.2 AEMO will ensure that the certification gateway will provide an automated environment whereby a *Subscriber* may perform an auditable suite of certification routines.
- 3.10.3 AEMO will ensure that the certification gateway will provide a *Subscriber* with a management interface to allow the *Subscriber* to schedule certification scripts that cause the certification gateway to send message sets to the *Subscriber* appropriate to their industry role.
- 3.10.4 AEMO will upon successful certification by a *Subscriber* issue a certificate indicating to all *Subscribers*, certifying that the *Subscriber* complies with the deployed protocols defined in the interface definitions applicable in that jurisdiction and that apply to all entry points to the system.

3.11 Help Desk

- 3.11.1 AEMO will provide 24 hours by seven days help desk services to manage *Subscriber* queries and problems. *Subscriber* can use telephone or email to send a helpdesk query.
- 3.11.2 The help desk will categorise calls into one of four priorities and respond in accordance with the following table 2:

TABLE: 2

PRIORITY	EXAMPLE	RESPONSE TIME	TARGET RESOLUTION TIME
Priority 1	Problems that cause total loss of service to one or more <i>Subscribers</i> . Resolution activities will continue until the problem is resolved or a temporary solution implemented. An example of a priority one problem is the malfunctioning of network or communications infrastructure.	20 Min	4 Hours
Priority 2	Problems that cause partial loss of a critical service. For example, the loss of the MarketNet network at the <i>FRC HUB</i> , causing <i>Subscribers</i> to use the Internet as an alternative route to the <i>FRC HUB</i> .	1 Hour	8 Hours
Priority 3	Problems that cause minimal loss of a critical service to one or more <i>Subscribers</i> . Examples of this category may include hardware, software, or network problems.	4 Hours	5 Days
Priority 4	Problems that cause no loss of critical services to any <i>Subscriber</i> . Problems within this category would be those resolved by negotiation, where there are no formal targets or maximum resolution time.	Next Business Day	By Negotiation

3.12 Digital Certificate and Registration Authority

- 3.12.1 AEMO will register *Subscribers* admitted to the system in accordance with its registration procedures.
- 3.12.2 AEMO will deliver and maintain a secure AEMO Certificate Authority (CA) root certificate.
- 3.12.3 As root CA, AEMO will deliver trusted digital certificates to all *Subscribers*.
- 3.12.4 As root CA, AEMO will satisfy digital certificate-signing requests for *Subscribers* by the end of the next business day following the day on which the request was received.
- 3.12.5 AEMO will invalidate and re-issue digital certificates to *Subscribers* as appropriate.
- 3.12.6 Upon approval by AEMO, *Subscribers* will receive the required certificates to operate in the *FRC HUB*.
- 3.12.7 The system topology will mean *Subscribers* do not have to take any measures to determine the validity of digital certificates. Upon the discovery of a compromised subscriber private key, AEMO will initiate steps to invalidate and re-issue the digital certificate.

3.12.8 In the event of *Subscriber* digital certificate invalidation, other *Subscribers* will not be required to make system or configuration changes.

3.12.9 AEMO will keep confidential the details of *Subscribers'* digital certificate.

4. SUBSCRIBERS' RESPONSIBILITIES

4.1.1 Where AEMO or a *Subscriber* creates a new, or modifies, an existing system used to generate the format, structure or method of transmission of a transaction that is passed through the *FRC HUB* they must first seek re-certification for those transactions impacted by the changed system, prior to placing the changed or new system in a state such that it sends transactions via the *FRC HUB*.

4.1.2 Each *Subscriber* shall manage their gateway connected to the *FRC HUB* such that any service interruptions are identified and action initiated to rectify the problem within the timeframes set out in Table 3. The period commences from the time a notice is delivered via the FRC relay notification facility.

TABLE 3

PERIOD	RESPONSE TIME (HOURS)
Business Hours Mon -Fri (excluding Public Holidays)	1
Non-Business Hours Mon - Fri (excluding Public Holidays)	2
Sat, Sun, (starting 0:00 Sat and finishing 7:00 am Mon) Public Holidays	4

4.1.3 Where a *Subscriber* becomes aware of any service interruption associated with their gateway, the *Subscriber* must deliver a notice identifying the issue via the FRC relay notification facility at the earliest opportunity but at least within the timeframes set out in Table 4.

TABLE 4

PERIOD	RESPONSE TIME (HOURS)
Business Hours Mon -Fri (excluding Public Holidays)	1

Non-Business Hours Mon – Fri	Within 1 hour of the commencement of the next Business Day
Sat, Sun, (starting 0:00 Sat and finishing 7:00 am Mon) Public Holidays	4

Business Hours are defined as 7am to 7pm Monday to Friday.

Non-Business Hours are defined as 7pm to 7am Monday to Thursday, 7pm to 11:59pm Friday.

Public Holidays include National Public Holidays and those defined in the *Public Holidays Act 1993* (Vic). (Note: this does not include Melbourne Metropolitan holidays such as Melbourne Cup Day).

For the avoidance of doubt Business Hours refers to the business hours of the market jurisdiction in which the Subscriber is active and are the business hours specified in the market impacted by the service interruption. For example an issue in a market based on Eastern Standard Time (Vic or Qld) would precede a market based in Central Standard Time (SA).

- 4.1.4 Each *Subscriber* and AEMO will use the ebXML Message Service Specification, and defined parameter settings thereto, to transport aseXML over HTTP/S.
- 4.1.5 Each *Subscriber* and AEMO will ensure that their gateway is configured to respond to a “HUB ping” initiated by the *FRC HUB* Operator as a monitored connectivity health check. For the avoidance of doubt *Subscribers* should avoid routine and frequent use of Ping connectivity testing point to point between gateways and only use Ping testing to resolve specific connectivity issues.
- 4.1.6 Each *Subscriber* will ensure that there will be no payload encryption within an ebXML message transmitted via the *FRC HUB*. All encryption is to be applied at the transport layer.
- 4.1.7 Each *Subscriber* will provide to AEMO a communications profile defining the protocol of choice and physical address for each *Subscriber*.
- 4.1.8 *Subscribers* will be responsible for the contract to provide their own bandwidth management, either to the Internet.
- 4.1.9 *Subscribers* will be responsible for their contract and business relationship (including fault management) for their connectivity to the MarketNet or the Internet.
- 4.1.10 *Subscribers* will ensure as part of the messaging infrastructure that all messages are time-stamped on transmission in the gateways, providing complete data on transmission latencies directly to *Subscribers*.
- 4.1.11 *Subscribers* will assist AEMO (as FRC HUB Service provider) to co-ordinate and manage definition of any changes that they require to B2B transactions and processes. *Subscribers* will work with AEMO to allow AEMO to assess the impact and to design and implement the change.

Stephen Eliot

From: Rousch, Catherine <Catherine.Rousch@alintaenergy.com.au>
Sent: 9 August, 2016 10:06 AM
To: Stephen Eliot (stephen.eliot@remco.net.au); REMCo_Administration
Subject: Submission re C02/16C and C03/16R

Dear Stephen,

Alinta Energy supports the two high impact rule changes **C02/16C – REMCo-AEMO Transition** and **C03/16R – Changes to Explicit Informed Consent Requirements**.

Regarding C03/16R, Alinta Energy notes that it would be technically correct for (b) in Appendix 6 to read:

(b) [orally or](#) in writing; and

rather than

(b) [verbally or](#) in writing; and

as “oral” means pertaining to speech or to the mouth, whilst “verbal” means pertaining to words, whether written or spoken. However as “verbal” is sometimes treated as a synonym for “oral” Alinta Energy is happy to accept the proposed changes.

Regards
Catherine

Catherine Rousch
Manager Regulatory Compliance



alintaenergy

Level 13 The Quadrant, 1 William Street, Perth WA 6000
PO Box 8348, Perth BC WA 6849

T +61 8 9486 3191

F +61 8 9226 4688

M 0448 878 655

E catherine.rousch@alintaenergy.com.au

W www.alintaenergy.com.au

Stephen Eliot

From: Alex Penter <apenter@kleenheat.com.au>
Sent: 12 August, 2016 5:11 PM
To: REMCo_Administration (REMCo_Administration@aemo.com.au)
Cc: Melanie Gordon; Stephen Eliot
Subject: Kleenheat Submission on Issue 186 REMCo High Impact Rule Change - Transition to AEMO

Hi

Kleenheat is supportive of the REMCo high impact rule change 'AEMO Transition' to facilitate the transfer of the WA gas retail market operations from Retail Energy Market Operator (REMCo) to the Australian Energy Market Operator (AEMO) and agrees this transition will promote the long term future of the WA gas retail market.

Kleenheat is keen to see the WA gas retail market continuing to operate efficiently and is supportive of AEMO maintaining a Western Australian presence to ensure gas retail market participants receive local representation and responsiveness similar to that experienced with REMCo.

The transition will lead to reduced costs for gas retail market participants and Kleenheat is satisfied that an appropriate level of due diligence, both by gas retail market participants and REMCo/AEMO has been carried out in order to transition towards the go-live at the end of October 2016.

Kleenheat is satisfied with the extent of changes to the WA Gas Retail Market Agreement replacing the existing REMCo Constitution and the REMCo Retail Market Rules becoming the WA Retail Market Procedures among other key transition documentation. Kleenheat would like to stress the importance of ensuring the existing REMCo IT budget is appropriately spent on WA IT Market interfaces after October's transition.

Kleenheat would like to thank Stephen Elliot, as REMCo CEO, for his continued support and efforts in the past three years since Kleenheat entered the WA gas retail market.

Thank you

Kind regards
Alex

Alex Penter
Regulatory Specialist Natural Gas & Electricity
Kleenheat

T 08 9312 9434 | **M** 0439 829 296
E apenter@kleenheat.com.au | **W** www.kleenheat.com.au

Building 161, Car Park 12, Murdoch University, Murdoch, Western Australia 6150
PO Box 4184, Myaree Business Centre, Western Australia 6960



WESFARMERS KLEENHEAT GAS PTY LTD ABN 40 008 679 543

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Enquiries: Simon Thackray
Telephone: (08) 6282 7622

12 August 2016

REMCo Rule Change
C/- AEMO
GPO Box 2008
Melbourne
VIC 3001

Email: remco_administration@aemo.com.au
stephen.eliot@remco.net.au

Request for submissions under rule 400(1)
C02/16C: REMCo - AEMO transition
C03/16R: Changes to explicit informed consent requirements

I refer to REMCo's notice dated 29 July 2016 advising it had commenced the second round of consultation on the above two high impact rule changes.

Synergy has considered the rule change impact / implementation report and related documents and is pleased to advise REMCo it supports both rules changes.

Synergy notes the changes have involved a significant amount of stakeholder engagement and our issues raised through the consultation process has been well managed by REMCo.

Thank you for the opportunity to comment.

Yours sincerely

A black rectangular box redacting the signature of Simon Thackray.

Simon Thackray
MANAGER REGULATION AND COMPLIANCE



Government of Western Australia
Department of Finance
Public Utilities Office

Your ref : C02/16C
Our ref : 2016/03787
Enquiries : Benjamin Ford
Telephone : 08 6551 4776

Mr Stephen Elliot
Chief Executive Officer
REMCo
228 Adelaide Terrace
PERTH WA 6000

Dear Stephen

REMCO RULE CHANGE PROPOSAL C02/16C: AEMO TRANSITION

Further to your email of 29 July 2016 providing notification that REMCo's rule change proposal (C02/16C) was open for public consultation, I provide a submission on behalf of the Public Utilities Office.

As understood by the Public Utilities Office, the rule change proposal seeks to implement changes to the REMCo retail market scheme documentation that will enable the transfer of responsibility for operating the Western Australian gas retail market from REMCo to AEMO.

The Public Utilities Office supports the proposed transition of responsibility for operating the retail gas market in Western Australia from REMCo to AEMO and does not have any objections to the changes to the retail market scheme documents outlined in the rule change proposal.

Yours sincerely



Ray Challen
DEPUTY DIRECTOR GENERAL

5 August 2016