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REMCO

30 April 2012

Mr Lyndon Rowe
Chairman
Economic Regulation Authority
Level 6, Governor Stirling Tower
197 St Georges Terrace
PERTH WA 6000

Dear Mr Rowe

Re: Approval of Amendments to the REMCo Retail Market Scheme – Rule Changes C06/11R, C01/12R, and C02/12R

Under section 11ZOL of the *Energy Coordination Act 1994* (the "Act"), Retail Energy Market Company Ltd ("REMCo") 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.

The Scheme is defined to include, amongst other things, the Retail Market Rules (the "Rules"). REMCo is applying to the Authority for the following amendments to the Scheme:

C01/12R Removal of Farm Tap Sub-Networks

This Rule Change proposes to remove all redundant references to farm-tap sub-networks from the Rules following the conversion of all remaining farm-tap sub-networks to covered sub-networks on 17 November 2011.

C02/12R Non-Substantial Amendments to v.6.2 of the Rules

This Rule change proposes to:

(a) amend a referencing error in the definition of "negative assurance audit" under Rule 2 – Definitions;

(b) amend some referencing errors in Rule 223 – Net System Load; and

(c) amend Appendices 1 and 2 of the Rules to replace references to "WA Gas Networks" and "Alinta" with "ATCO Gas Australia".

The Rule Change Committee (the "Committee") discussed the proposed Rule Changes as follows:

C01/12R Removal of Farm Tap Sub-Networks

At its meeting on 1 February 2012, the Committee unanimously agreed to endorse proposed Rule Change C01/12R as a "low impact" Rule change.

REMCo subsequently undertook a consultation process regarding Rule Change C01/12R with all gas retail market participants and other affected parties. The consultation process closed on 27 April 2011, and no objections or submissions of support were received for this Rule change.

Under Rule 399A(3), if by the end of the consultation period REMCo has not received any objections, then the Committee must recommend to REMCo that it treat the Rule change as a low impact Rule change, and submit it to the Authority for approval, as if it were made under Rule 396A.

C02/12R Non-Consequential Amendments to v.6.2 of the Rules

At its meeting on 18 April 2012, the Committee unanimously agreed to endorse proposed Rule Change C02/12R as a "non-substantial" Rule change.

Under Rule 396A, if the Committee unanimously agree under Rule 396(1) that a Rule change has a non-substantial impact, the Committee must recommend to REMCo that it submit the non-substantial Rule change to the Authority for approval.

REMCo would like to implement Rule Changes C01/12R and C02/12R in a new Version 6.3 of the Rules on 1 June 2012.

In addition, on 10 January 2012, REMCo previously applied to the Authority for Rule Change C06/11R – Retail Market Scheme Definition. REMCo asked for Rule Change C06/11R to be made in a new Version 6.3 of the Rules on 1 March 2012.

However, with the development of Rule Changes C01/12R and C02/12R commencing in early 2012, REMCo and the Authority's staff agreed to defer putting Rule Change C06/11R before the Authority, and to seek approval and commencement of Rule Change C06/11R concurrent with C01/12R and C02/12R.

Therefore, REMCo would request that the Authority consider the 10 January 2012 application for Rule Change C06/11R at this time.

REMCo would appreciate it if the Authority could consider, approve, and publish the approvals for Rule Changes C06/11R, C01/12R, and C02/12R in the Gazette by this 1 June 2012.

Once the Authority approves Rule Changes C06/11R, C01/12R, and C02/12R; REMCo will post the new Version 6.3 of the Rules on its website; including both a clean copy and a copy with the changes marked.

Section 11ZOO of the Act specifies the criteria that the Authority is to consider in determining whether to approve an amendment to the Scheme. Tables are provided in Attachments 1 and 2 to this letter that lay out the requirements that the Authority is to consider under section 11ZOO for Rule Changes C01/12R and C02/12R, respectively. This table also provides REMCo's commentary as to why it believes these criteria have been met.

In addition, the following documents are enclosed for the information of the Authority:

- the Impact and Implementation Report for Rule Change C01/12R that was used for the consultation process for this Rule Change;
- the Rule Change Recommendation Report for Rule Change C01/12R that was drafted following completion of the consultation process for this Rule Change; and
- the Rule Change Recommendation Report for Rule Change C02/12R that was drafted following the Committee Meeting on 18 April 2012, noting that there is no Impact and Implementation Report for this Rule Change because it is a non-substantial Rule Change.

I am available on (08) 6212 1829 or on 0421 093 598 if you would like set up a meeting to discuss this application, or if have any questions or need any further information.

Yours sincerely

STEPHEN ELIOT
Chief Executive Officer

Copy: Ms Wana Yang, Assistant Director, Markets

Attachment 1 – Rationale for Rule Change C01/12R Meeting the Requirements for Rule Change under the Act

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	The REMCo Scheme currently provides for a sub-network to be treated as farm-tap if it has a single interval meter and no basic meters. Farm-taps were necessary because the REMCo's IT system (the Gas Retail Market System, or "GRMS") could not calculate a Net System Load for a sub-network if it has no basic meters, and so the GRMS would not be able to function properly. However, REMCo has subsequently made changes to the GRMS and its procedures to allow the systems to function for sub-networks with only a single interval meter; and so the four farm-tap sub-networks were converted to covered sub-networks in the period from 20 December 2010 to 17 November 2011. As a result, all current and future sub-networks with only a single interval meter will be treated as covered sub-networks, and the farm-tap provisions in the Rules are now redundant. Since the current treatment of covered sub-networks under the Rules complies with the Act, REMCo submits that the Scheme will continue to comply with the Act with the removal of the redundant farm-tap provisions.
	(ii) be suitable for the purposes of section 11ZOB;	Section 11ZOB 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: (a) open and competitive; (b) efficient; and (c) fair to gas market participants and their customers. Treating all current and future sub-networks with only a single interval meter as covered sub-networks will ensure consistency in application of the Rules across all sub-networks, and will improve efficiency and effectiveness of the REMCo processes. Further, removal of the redundant farm-tap provisions from the Rules will remove potential for confusion on applicability of the redundant provisions in the future.
	(b) any other principle, criterion, or requirement that is prescribed for the purposes of this paragraph has been met.	REMCo is not aware of any regulations under section 11ZOO(b), so this section of the Act is not applicable.

Attachment 1 – Rationale for Rule Change C01/12R Meeting the Requirements for Rule Change under the Act

Section	Requirement	REMCo Comment
11ZOO(2)	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: (a) each person required to be consulted has agreed to the amendment; or (b) if any person required to be consulted has not so agreed, that person has been given a reasonable opportunity in the course of consultation to provide reasons for not agreeing, and any reasons so provided have been considered.	REMCo submitted C01/12R to the Committee for consideration on 1 February 2012, and the Committee unanimously agreed that it is a low impact Rule change because it does not: • materially impact the information technology systems of REMCo, participants, pipeline operators or prescribed persons; • materially alter consumer protection mechanisms under the Rules; or • have a material commercial impact on REMCo, participants, pipeline operators or prescribed persons. Following this determination, REMCo commenced a consultation process on 12 April 2012, in accordance with the requirements of Rule 399A(1)(a). This consultation process concluded on 27 April 2012, and REMCo received no objections or submissions of support in relation to Rule Change C01/12R. Under Rule 399A(3), if by the end of the consultation period REMCo has not received any objections, then the Committee must recommend to REMCo that it treat the Rule change as a low impact Rule change, and REMCo is to submit the Rule change to the Authority for approval once it has received the Rule Change Recommendation Report. As a result, REMCo submits that it has met all of the consultation requirements for the amendments proposed in C01/12R, and that each person required to be consulted has agreed to the amendment.

Attachment 2 – Rationale for Rule Change C02/12R Meeting the Requirements for Rule Change under the Act

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	Rule Change C02/12R fixes several non-substantial referencing and cross-referencing errors in the Rules. Since the Scheme currently complies with the Act, REMCo submits that the Scheme will continue to comply with the Act if the Authority approves amendment of these errors.
	(ii) be suitable for the purposes of section 11ZOB;	Section 11ZOB 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: (a) open and competitive; (b) efficient; and (c) fair to gas market participants and their customers. Rule Change C02/12R fixes several non-substantial referencing and cross-referencing errors in the Rules; so the only impact of these changes will be to clarify the Rules, which will improve their effectiveness, which will make the Scheme better meet the criteria in section 11ZOB.
	(b) any other principle, criterion, or requirement that is prescribed for the purposes of this paragraph has been met.	REMCo is not aware of any regulations under section 11ZOO(b), so this section of the Act is not applicable.
11ZOO(2)	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: (a) each person required to be consulted has agreed to the amendment; or (b) if any person required to be consulted has not so agreed, that person has been given a reasonable opportunity in the course of consultation to provide reasons for not agreeing, and any reasons so provided have been considered.	REMCo submitted C02/12R to the Committee for consideration on 18 April 2012, and the Committee unanimously agreed that it is a non-substantial Rule change because, as per the definition of non-substantial Rule changes in Rule 396(2)(a), the changes have no effect on operations of REMCo, participants, interested persons, or prescribed persons; and merely correct typographical errors, grammatical errors, cross-referencing errors, or other similar trivial defects in the Rules. Under Rule 396A, if the Committee unanimously agree under Rule 396(1) that a Rule change has a non-substantial impact, the Committee must recommend to REMCo that it submit the non-substantial Rule change to the Authority for approval. As a result, REMCo submits that it has met all of the consultation requirements for the amendments proposed in C02/12R, and that each person required to be consulted has agreed to the amendment.

REMCO

Retail Energy Market Company

IMPACT & IMPLEMENTATION REPORT
(INCORPORATING THE PROPOSED RULE CHANGE) – SUMMARY SECTION
(For REMCo to complete and administer)

Rule Change Number	**C01/12R**		
Impacted jurisdiction(s)	Western Australia		
Proponent	Tim Sheridan	Company	REMCo
Industry consultative forum(s) used	RCC	Date concluded by Rule Change Committee ("RCC")	01/02/12
Rule change ranking (as per Chapter 9): ▪ Non-substantial ▪ Low impact ▪ High impact	Low impact		
Short description of change(s)	Removal of farm-tap sub-networks		
Rule(s) or documentation impacted	Rules 2, 15, 152(5), 171A and Appendix 1 of the Retail Market Rules		
Summary of the change(s)	The removal all redundant references to farm-tap sub-networks from the Retail Market Rules following the conversion of all remaining farm-tap sub-networks to covered sub-networks on 17/11/11.		
I&IR prepared by	Tim Sheridan	Approved by	Stephen Eliot
Date I&IR published	12/04/12	Date consultation concludes	27/04/12
Contact address for written responses	REMCo Rule Change C/- AEMO GPO Box 2008 Melbourne VIC 3001		
Email address for responses	remco_adminstration@aemo.com.au		
Other key contact information	Tim Sheridan, (03) 9609-8417		

IMPACT & IMPLEMENTATION REPORT – DETAILED REPORT SECTION

CRITICAL EXAMINATION OF PROPOSAL	
1. Description of change(s) and reasons for change(s)	This Impact and Implementation Report ("I&IR") has been developed by REMCo in accordance with Rule 397 of the Rules, and is raised for consideration by gas retail market participants as a Low Impact Rule change (C01/12R). The proposed changes in this I&IR have been developed by REMCo and were initially raised for discussion as a Gas Market Issue ("GMI") at the RCC meeting on 01/02/12. At the meeting, the RCC endorsed the proposed amendments as a Low Impact Rule Change. In summary, the proposed changes in this I&IR are to remove all redundant references to farm-tap sub-networks from the Retail Market Rules (the "Rules") following the conversion of all remaining farm-tap sub-networks to covered sub-networks on 17/11/11. The proposed amendments are to be published in a new version 6.3 of the Rules that is targeted for an effective date of 01/06/12. **Background** On 20/12/10, the Kemerton farm-tap sub-network was converted into a covered sub-network, leaving the following three remaining farm-tap sub-networks: • Eneabba; • Muchea; and • Oakley Road (Pinjarra). On 25/08/11, REMCo received a notice from ATCO Gas Australia ("ATCO") under Rule 15 proposing that the remaining farm-tap sub-networks be identified as covered sub-networks in Appendix 1 of the Rules. REMCo then requested Logica to develop a Change Request (CR107) to modify the Gas Retail Market Systems ("GRMS") and convert the remaining farm-tap sub-networks into covered sub-networks. On 17/11/11, Logica implemented the changes to the GRMS. As a result, there are no longer any active farm-tap sub-networks in the Western Australian Gas Retail Market and references to farm-tap sub-networks in the Rules have become redundant. The precise amendments which form part of this Rule change are detailed in Attachment A to this I&IR.
2. Reference documentation ▪ Retail Market Rules (the "Rules"); ▪ Business/Information/ Specification Pack Reference; and/or ▪ Other Reference.	The reference documentation includes: • The Retail Market Rules – Version 6.2.

3. The high-level details of the change(s) to the existing Rules. This includes: ▪ 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)	As indicated in section 1, the proposed changes in this I&IR are to remove all redundant references in the Rules to farm-tap sub-networks following the conversion of all remaining farm-tap sub-networks to covered sub-networks on 17/11/11. The proposed amendments are to be published in a new version 6.3 of the Rules that is targeted for an effective date of 01/06/12. The precise amendments are detailed in Attachment A.
4. Explanation regarding the order of magnitude of the change (e.g. material, non-material or non-substantial)	The impact of the proposed amendments as described in this I&IR are considered to be 'low impact' as the amendments: (a) do not materially impact the information technology systems of REMCo, participants, pipeline operators or prescribed persons; (b) do not materially alter consumer protection mechanisms under the Rules; and (c) do not have a material commercial impact on REMCo, participants, pipeline operators or prescribed persons.
5. Overall Industry cost/benefit analysis (tangible / intangible / risk) and/or cost estimates	**Cost** REMCo has not incurred any costs in the development of this Rule change and has not received any information from other gas retail market participants on the cost or impact of this Rule change on their business. **Benefits** The removal of redundant Rules that are no longer applicable following the conversion of all remaining farm-taps to covered sub-networks on 17/11/11 will simplify the Rules and remove potential future confusion about the purpose of farm-tap sub-networks.
6. The likely effect of the change(s) on stakeholders (e.g. industry or end-users)	REMCo does not consider that the proposed amendments as described in this I&IR will have any effects on stakeholders or their systems.
7. Testing requirements	There are no testing requirements.
8. Consideration of the recommended Rule change by REMCo under Rule 399. REMCo must either: ▪ endorse the recommended rule change; or ▪ reject the recommended rule change	In accordance with Rule 399, REMCo endorses the low impact Rule change as previously determined by the RCC under Rule 397.

9. Consultation forum outcomes (e.g. the conclusions made on the change(s), whether there was unanimous approval, any dissenting views)	The GMI on the proposed amendments was also circulated to the following market participants: a. ATCO Gas Australia, as the Network Operator; b. Alinta Sales, as a User, Shipper and swing Service Provider; c. APT, as a Pipeline Operator and Swing Service Provider; d. DBP, as a Pipeline Operator; e. Premier Power Sales, as a User; f. Synergy, as a User and Swing Service Provider; and g. Perth Energy as a User, Shipper and Swing Service Provider. The GMI was discussed at the RCC meeting on 01/02/12 and endorsed by the RCC as Low Impact Rule Change C01/12R.
10. Legal review: ▪ does this rule change impact the ACCC authorisation? ▪ is an external legal review required?	The ACCC authorisation is for Chapters 5 and 6, and Appendices 7 to 10 of the Rules. As a result, the Rule change does not impact the ACCC authorisation; and no external legal review is required.
11. Should the proposed Rule change be made, (with or without amendments)?	REMCo recommends that the proposed amendments as described in this I&IR should be made without further amendments.
12. If applicable, a proposed effective date for the proposed Rule change(s) to take effect and justification for that timeline.	The effective date for this Rule change and version 6.3 of the Rules is targeted for 01/06/12.

ATTACHMENT A – Amendments to the Retail Market Rules

All amendments to the Rules are change marked, where underlining (blue) represents an addition, and strike (red) through represents a deletion.

Amend Rule 2 as follows:

"covered sub-network" – means a *sub-network* that is not an ~~*farm tap sub-network* or is not a~~ *uncovered sub-network*.

~~**"farm tap sub-network"** means a *delivery point* which is connected to only one *pipeline* and is not connected by a *GDS* or part of a *GDS* to any other *delivery point*, which a *network operator* identifies under rule 15 as a *sub-network* for contractual and operational purposes and which is listed in Appendix 1.~~

"sub-network" means:

(a) a part of a *GDS* which a *network operator* identifies under rule 15 as a sub-network for contractual and operational purposes and which is listed in Appendix 1;

~~(b) or a *farm tap sub-network*.~~

Amend Rule 15 as follows:

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 ~~*farm tap sub-network*,~~ *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 REMCo* of the proposed new *sub-network* or proposed changes to an existing ~~*farm tap sub-network*,~~ *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 ~~*farm tap sub-network*,~~ *uncovered sub-network*, or *covered sub-network* become operational.

(4) Upon receipt of notification under rule 15(3), *REMCo* 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.

~~For each *gas day* and for each *farm tap sub-network* listed in Appendix 1, the *network operator* must validate that only one *delivery point* exists on that *farm tap sub-network*. If more than one *delivery point* is indentified on a *farm tap sub-network*, then the *network operator* must notify *REMCo* within one *business day*.~~

Amend Rule 152 as follows:

152. Network operator to provide gate point metering data to REMCo for each gate point

(1) Subject to rule 152(5) the *network operator* must:

(a) subject to rule 152(4) aggregate the *physical gate point metering data* provided under rule 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 *REMCo* as soon as reasonably practicable after receiving the *physical gate point metering data* from the *pipeline operator* under rule 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 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 152(1)(a); and

(b) provide to *REMCo* the amended *gate point metering data* determined under rule 152(2)(a).

(3) If for any reason (including the operation of rule 151(4) the *network operator* does not receive the *physical gate point metering data* within the time specified in rule 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* within3.5 hours after the end of the gas day.

{Note: If after complying with its obligation under rule 152(1) or rule 152(2) the *network operator* becomes aware of a manifest error in the data it has provided then the *network operator* may notify *REMCo* under rule 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 152(5)~~Rule 151(1) does not apply in respect of the *gate point metering data* for:~~

~~a *farm tap sub-network*; or~~

Amend Rule 171A as follows:

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 171A(1)(a)~~a *farm tap sub-network*; or~~

(b) an *uncovered sub-network.*

(5) If a *network operator* of a *sub-network* identified in rule 171A(1) becomes aware that:

(a) there is no rule 171A(5)(a)~~in the case of a *farm tap sub-network* — it is proposed to add one or more further *delivery points* to the existing *delivery point*; and~~

(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 *REMCo* of the proposal and provide *REMCo* with information in reasonable detail regarding the proposal_at least 40 *business days* prior to ~~more than one *delivery point* being *commissioned* on a *farm tap sub-network* as prescribed in rule 171A (2)(a), or prior to~~ an *uncovered sub-network* becoming a covered pipeline as prescribed in rule 171A(2)(b), or prior to a *covered sub-network* becoming an *uncovered sub-network* as prescribed under rule 171A(2)(c).

(6) 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, if applicable, the provisions in relation to *swing service*, *swing service providers* and *swing service repayment quantities* are to be disregarded:

(i) rule 221;

(ii) rule 228;

(iii) rule 246;

(iv) rule 248;

(v) rule 249;

(vi) rule 252;

(vii) rule 253; and

(viii) rule 302.

Amend Appendix 1 as follows:

Appendix 1 – Coding of gas zones and gate points

{Note: This 0 may be updated from time to time under rule (a).}

Sub-appendix 1.1 – Western Australia

1.1.1 Coding of gas zones

To minimise the number of data fields required in the *REMCo 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 = WA Gas Networks

B is used to segregate by licence area and *Access Arrangement* Coverage. B is a numerical field:

WA Gas Networks 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:

WA Gas Networks in WA (i.e. where A = 1) CC equals as follows:

01 = Geraldton (Nangetty Road)

02 = Eneabba ~~*(farm tap sub-network)*~~;

03 = Muchea ~~(*farm tap sub-network*)~~;

04 = Deleted

05 = Ellenbrook;

06 = Metro North;

07 = Metro South;

08 = Barter Road, Naval Base;

09 = Rockingham;

10 = Pinjarra;

11 = Oakley Road (Pinjarra) ~~(*farm tap sub-network*)~~;

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 WA Gas Networks MWSW GDS	11121
The Pinjarra sub network in WA Gas Networks MWSW GDS	11101
The Kalgoorlie sub network in WA Gas Networks Kalgoorlie GDS	12161

1.1.2 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 (a) 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 WA Gas Networks' 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:**

WA Gas Networks 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 WA Gas Networks MWSW GDS	1112D
The gate point on the Parmelia that supplies the North Metro sub network in WA Gas Networks MWSW GDS	1106P
The gate point on the GGT that supplies the Kalgoorlie sub network in WA Gas Networks Kalgoorlie GDS	1216G

Sub-appendix 1.2 – There is no Sub-appendix 1.2

REMCo

Rule Change Final Recommendation Report

Removal of Farm-Tap Sub-Networks (C01/12R)

Date of Rule Change Committee Meeting: 1 February 2012

Prepared By	Tim Sheridan
Approved By	Stephen Eliot

Executive Summary

As required under Rule 399A(1)(a), REMCo published the following endorsed low impact Rule Change for consultation on 12/04/12:

- C01/12R – Removal of Farm-Tap Sub-Networks.

The consultation for the Rule change closed on 27/04/12, and no objections or submissions of support were received for this Rule change.

Under Rule 399A(3), if by the end of the consultation period REMCo has not received any objections, then the Rule Change Committee (the "Committee") must recommend to REMCo that it treat the Rule Change as a low impact Rule Change, and submit it for approval to the Economic Regulation Authority (the "Authority"), as if it were made under Rule 396A.

REMCo has prepared a draft of such a report on behalf of the Committee for its endorsement as set out in **Attachment 1**.

Recommendation

It is recommended that the Committee pass the following decision:

> That under Rule 399(A)(3), the Committee endorses the draft report set out in Attachment 1 for submission to REMCo in relation to the following low impact Rule Change:
>
> - C01/12R – Removal of Farm-Tap Sub-Networks.

Introduction

a) Final Report

This report has been prepared by REMCo under Rule 399A(3) on behalf of the Committee following its meeting on 01/02/12.

b) Purpose of Report

The purpose of this report is to enable REMCo to determine, in respect of Rule Change C01/12R, whether to adopt the endorsed Rule Change for approval by the Authority.

Information relating to Rule Change C01/12R is set out in **Schedule A**.

c) Consultation

In accordance with Rule 399A(1)(a), participants, pipeline operators, prescribed persons and interested persons were invited to make submissions on the endorsed Rule Change.

REMCo received no objections or submissions of support in relation to Rule Change C01/12R.

C01/12R – Removal of Farm-Tap Sub-Networks

Rule Change Description	This Rule Change proposes to remove all redundant references to farm-tap sub-networks from the Retail Market Rules (the "Rules") following the conversion of all remaining farm-tap sub-networks to covered sub-networks on 17/11/11. The precise changes that form part of this Rule Change are detailed in Attachment A.
Rule Change Development	The proposed changes contained in this Rule Change were raised for consideration by the Committee at its meeting on 01/02/12. It was recommended that the Committee consider Rule Change C01/12R to be low impact as the amendments do not: (a) materially impact the information technology systems of REMCo, participants, pipeline operators or prescribed persons; (b) materially alter consumer protection mechanisms under the Rules; and (c) have a material commercial impact on REMCo, participants, pipeline operators or prescribed persons.
Market Participants Affected	This Rule Change is not considered to have any material effect on the operations of REMCo, participants, interested persons or prescribed persons.
Market Participants Consultation	REMCo circulated a Gas Market Issue ("GMI") on the proposed changes to the following participants on the 25/01/12: a. ATCO Gas Australia, as the network operator; b. Alinta Sales, as a user, shipper and swing service provider; c. APA, as a pipeline operator and swing service provider; d. DBP, as a pipeline operator; e. Premier Power Sales, as a user; f. Synergy, as a user, shipper and swing service provider; and g. Perth Energy, as a user; shipper and swing service provider.
Consultation Outcomes	At its meeting on 01/02/12, the Committee reviewed the GMI and endorsed the proposed amendments as a Low Impact Rule Change and determined that consultation for the Rule Change should be postponed subject to the resolution of implementation issues associated with the conversion of the remaining farm-tap sub-networks. On 12/04/12, REMCo notified market participants that the implementation issues had been resolved and consultation on the Low Impact Rule Change commenced later that day.
Legal Review	The ACCC authorisation is for Chapters 5 and 6, and Appendices 7 to 10 of the Rules. As a result, the Rule change does not impact the ACCC authorisation; and no external legal review is required.
Implementation Considerations	The proposed amendments in this Rule Change do not have any impact on REMCo's Gas Retail Market Systems ("GRMS"), so there are no system costs to implement these changes

	Subject to the Authority for approval, Rule Change C01/12R is targeted for an effective date of 01/06/12.
Details of Change	The details of the changes are provided in Attachment A.

Attachment A

REMCo Rule Change C01/12R

All amendments to the Rules are change marked, where underlining (blue) represents an addition, and strike (red) through represents a deletion.

Amend Rule 2 as follows:

"covered sub-network" – means a *sub-network* that is not an ~~*farm tap sub-network* or is not a~~ *uncovered sub-network*.

~~**"farm tap sub-network"** means a *delivery point* which is connected to only one *pipeline* and is not connected by a *GDS* or part of a *GDS* to any other *delivery point*, which a *network operator* identifies under rule 15 as a *sub-network* for contractual and operational purposes and which is listed in Appendix 1.~~

"sub-network" means:

(a) a part of a *GDS* which a *network operator* identifies under rule 15 as a sub-network for contractual and operational purposes and which is listed in Appendix 1;

~~(b) or a *farm tap sub-network*.~~

Amend Rule 15 as follows:

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 ~~*farm tap sub-network*,~~ *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 REMCo* of the proposed new *sub-network* or proposed changes to an existing ~~*farm tap sub-network*,~~ *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 ~~*farm tap sub-network*,~~ *uncovered sub-network*, or *covered sub-network* become operational.

(4) Upon receipt of notification under rule 15(3), *REMCo* 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.

~~For each *gas day* and for each *farm tap sub-network* listed in Appendix 1, the *network operator* must validate that only one *delivery point* exists on that *farm tap sub-network*. If more than one *delivery point* is indentified on a *farm tap sub-network*, then the *network operator* must notify *REMCo* within one *business day*.~~

Amend Rule 152 as follows:

152. Network operator to provide gate point metering data to REMCo for each gate point

(1) Subject to rule 152(5) the *network operator* must:

(a) subject to rule 152(4) aggregate the *physical gate point metering data* provided under rule 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 *REMCo* as soon as reasonably practicable after receiving the *physical gate point metering data* from the *pipeline operator* under rule 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 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 152(1)(a); and

(b) provide to *REMCo* the amended *gate point metering data* determined under rule 152(2)(a).

(3) If for any reason (including the operation of rule 151(4) the *network operator* does not receive the *physical gate point metering data* within the time specified in rule 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* within3.5 hours after the end of the gas day.

{Note: If after complying with its obligation under rule 152(1) or rule 152(2) the *network operator* becomes aware of a manifest error in the data it has provided then the *network operator* may notify *REMCo* under rule 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 152(5)~~Rule 151(1) does not apply in respect of the *gate point metering data* for:~~

~~*a farm tap sub-network*; or~~

Amend Rule 171A as follows:

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 171A(1)(a)~~a *farm tap sub-network*; or~~

(b) an *uncovered sub-network*.

(5) If a *network operator* of a *sub-network* identified in rule 171A(1) becomes aware that:

(a) there is no rule 171A(5)(a)~~in the case of a *farm tap sub-network* — it is proposed to add one or more further *delivery points* to the existing *delivery point*; and~~

(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 *REMCo* of the proposal and provide *REMCo* with information in reasonable detail regarding the proposal at least 40 *business days* prior to ~~more than one *delivery point* being *commissioned* on a *farm tap sub-network* as prescribed in rule 171A (2)(a), or prior to~~ an *uncovered sub-network* becoming a covered pipeline as prescribed in rule 171A(2)(b), or prior to a *covered sub-network* becoming an *uncovered sub-network* as prescribed under rule 171A(2)(c).

(6) 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, if applicable, the provisions in relation to *swing service*, *swing service providers* and *swing service repayment quantities* are to be disregarded:

(i) rule 221;

(ii) rule 228;

(iii) rule 246;

(iv) rule 248;

(v) rule 249;

(vi) rule 252;

(vii) rule 253; and

(viii) rule 302.

Amend Appendix 1 as follows:

Appendix 1 – Coding of gas zones and gate points

{Note: This 0 may be updated from time to time under rule (a).}

Sub-appendix 1.1 – Western Australia

1.1.1 Coding of gas zones

To minimise the number of data fields required in the *REMCo 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 = WA Gas Networks

B is used to segregate by licence area and *Access Arrangement* Coverage. B is a numerical field:

WA Gas Networks 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:

WA Gas Networks in WA (i.e. where A = 1) CC equals as follows:

01 = Geraldton (Nangetty Road)

02 = Eneabba ~~*(farm tap sub-network)*~~;

03 = Muchea ~~*(farm tap sub-network)*~~;

04 = Deleted

05 = Ellenbrook;

06 = Metro North;

07 = Metro South;

08 = Barter Road, Naval Base;

09 = Rockingham;

10 = Pinjarra;

11 = Oakley Road (Pinjarra) ~~*(farm tap sub-network)*~~;

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 WA Gas Networks MWSW GDS	11121
The Pinjarra sub network in WA Gas Networks MWSW GDS	11101
The Kalgoorlie sub network in WA Gas Networks Kalgoorlie GDS	12161

1.1.2 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 (a) 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 WA Gas Networks' 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:

WA Gas Networks 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 WA Gas Networks MWSW GDS	1112D
The gate point on the Parmelia that supplies the North Metro sub network in WA Gas Networks MWSW GDS	1106P
The gate point on the GGT that supplies the Kalgoorlie sub network in WA Gas Networks Kalgoorlie GDS	1216G

Sub-appendix 1.2 – There is no Sub-appendix 1.2

REMCO

Rule Change Final Recommendation Report

Non-Consequential Amendments to Version 6.2 of the Retail Market Rules (C02/12R)

Date of Rule Change Committee Meeting: 18 April 2012

Prepared By	Tim Sheridan
Approved By	Stephen Eliot

Executive Summary

As required under Rule 399(1), REMCo published the following endorsed Rule Change for consultation on 11/04/12:

- C02/12R – Non-Consequential Amendments to Version 6.2 of the Retail Market Rules

Under Rule 396A, the Rule Change Committee (the "Committee") can agree to prepare a report recommending to REMCo that it treat the Rule Change as a Non-Substantial Rule Change and submit it for approval to the Economic Regulation Authority (the "Authority") under Rule 396A. REMCo has prepared a draft of such a report on behalf of the Committee for its endorsement as set out in **Attachment 1**.

Recommendation

It is recommended that the Committee pass the following decision:

> That under Rule 396(A), the Committee endorses the draft report set out in Attachment 1 for submission to REMCo in relation to the following Non-Substantial Rule Change:
>
> - C02/12R – Non-Consequential Amendments to Version 6.2 of the Retail Market Rules.

Introduction

a) Final Report

This report has been prepared by REMCo under Rule 396A on behalf of the Committee following its meeting on 18/04/12.

b) Purpose of Report

The purpose of this report is to enable REMCo to determine, in respect of Rule Change C02/12R, whether to adopt the endorsed Rule Change for approval by the Authority.

Information relating to Rule Change C02/12R is set out in **Schedule A**.

c) Consultation

The Committee determined that Rule Change C02/12R is a non-substantial Rule Change, so REMCo is not required to conduct any further consultation on this Rule Change after it was considered by the Committee on 18/04/12.

C02/12R – Non-Consequential Amendments to Version 6.2 of the Retail Market Rules

Rule Change Description	This Rule Change proposes several non-consequential amendments to the Retail Market Rules (the "Rules"), including: a) Replacing all references to "WA Gas Network" and "Alinta" with "ATCO Gas Australia"; b) For the definition of "negative assurance audit" under Rule 2, there is a redundant reference to rule 350(1) which should be changed to rule 350; and c) Under Rule 223(2)(b), there is a redundant reference to Rule 217 which should be changed to Rule 223. The precise changes that form part of this Rule Change are detailed in Attachment A.
Rule Change Development	The proposed changes contained in this Rule Change were raised for consideration by the Committee at its meeting on 18/04/12. At the meeting, the Committee unanimously agreed to endorse the proposed amendments as a Non-Substantial Rule Change because, as per the definition of non-substantial Rule changes in Rule 294, the changes have no effect on operations of REMCo, participants, interested persons, or prescribed persons; and merely correct typographical errors, grammatical errors, cross-referencing errors, or other similar trivial defects in the Rules.
Market Participants Affected	This Rule Change is considered to be non-substantial and no market participants are expected to, or have indicated they will be materially affected by the changes.
Market Participants Consultation	REMCo circulated a Proposed Rule Change Gas ("PRC") on the proposed changes to the following participants on the 11/04/12: a. ATCO Gas Australia, as the network operator; b. Alinta Sales, as a user, shipper and swing service provider; c. APA, as a pipeline operator and swing service provider; d. DBP, as a pipeline operator; e. Premier Power Sales, as a user; f. Synergy, as a user, shipper and swing service provider; and g. Perth Energy, as a user; shipper and swing service provider.
Consultation Outcomes	At its meeting on 18/04/12, the Committee endorsed the proposed amendments as a Non-Substantial Rule Change and agreed that REMCo should submit Rule Change C02/12R to the Authority for approval.
Legal Review	The ACCC authorisation is for Chapters 5 and 6, and Appendices 7 to 10 of the Rules. As a result, the Rule change does not impact the ACCC authorisation; and no external legal review is required.
Implementation Considerations	The proposed changes do not have any impact on REMCo's Gas Retail Market Systems ("GRMS") so there are no system costs to implement

	these changes. Subject to the Authority for approval, Rule Change C02/12R is targeted for an effective date of 01/06/12.
Details of Change	The details of the changes are provided in Attachment A.

Attachment A

REMCo Rule Change C02/12R

All amendments to the Rules are change marked, where underlining (blue) represents an addition, and strike (red) through represents a deletion.

Amend Rule 2 as follows:

2. Definitions

"negative assurance audit" means a review with the objective of enabling the *auditor* to state whether, on the basis of review 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 set out under rule ~~350(1)~~350; or

(b) *REMCo's* non-compliance with the rules set out under rule 351(1); or

(c) a *network operator's* non-compliance with the rules set out under rule 352(1).

Amend Rule 223(2)(b) as follows:

223. Net system load

(1) For each *sub-network* for each *gas day D*, *REMCo* 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 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 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 229(1) or rule 238(2), as applicable.

{Note: The *EUAFG* may be a negative number.}

(2) If *REMCo's* calculation of *net system load* for any *historical gas day i* for *gas day D* under rule 223(1) produces a negative number or *REMCo* does not receive an estimate of *unaccounted for gas* for the *sub-network* for *gas day D* under rule 229(1), *REMCo* must:

(a) instead of calculating *net system load* as set out in rule 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 223~~217(5)~~ 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 221;

UIW = the *interval-metered withdrawals* for the *sub-network* for *gas day D* for each *user* in the *sub-network* calculated under rule 222; and

NSL = the *net system load* for the *sub-network* calculated under rule 223(2)(a) for *gas day D*,

Amend Appendix 1 and 2 as follows:

Appendix 1 – Coding of gas zones and gate points

{Note: This Appendix may be updated from time to time under rule 15.}

Sub-appendix 1.1 – Western Australia

1.1.1 Coding of gas zones

To minimise the number of data fields required in the *REMCo 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 =

B is used to segregate by licence area and *Access Arrangement* Coverage. B is a numerical field:

~~**WA Gas Networks**~~**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:

~~WA Gas Networks~~ATCO Gas Australia in WA (i.e. where A = 1) CC equals as follows:

01 = Geraldton (Nangetty Road)

02 = Eneabba (*farm tap sub-network*);

03 = Muchea (*farm tap sub-network*);

04 = Deleted

05 = Ellenbrook;

06 = Metro North;

07 = Metro South;

08 = Barter Road, Naval Base;

09 = Rockingham;

10 = Pinjarra;

11 = Oakley Road (Pinjarra) (*farm tap sub-network*);

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 ~~WA Gas Networks~~ATCO Gas Australia MWSW GDS	11121
The Pinjarra sub network in ~~WA Gas Networks~~ATCO Gas Australia MWSW GDS	11101
The Kalgoorlie sub network in ~~WA Gas Networks~~ATCO Gas Australia Kalgoorlie GDS	12161

1.1.2 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 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 ~~WA Gas Networks~~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:
~~WA Gas Networks~~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 ~~WA Gas Networks~~ATCO Gas Australia MWSW GDS	1112D
The gate point on the Parmelia that supplies the North Metro sub network in ~~WA Gas Networks~~ATCO Gas Australia MWSW GDS	1106P
The gate point on the GGT that supplies the Kalgoorlie sub network in ~~WA Gas Networks~~ATCO Gas Australia Kalgoorlie GDS	1216G

Sub-appendix 1.2 – There is no Sub-appendix 1.2

Appendix 2 – Estimation and Verification Methodology

Sub-appendix 2.1 – Western Australia

2.1.1 Verification methodology for Basic Meters

There are two steps in the ~~WA Gas Networks~~ATCO Gas Australia basic meter validation; Validation of the meter readers data input and a trend check against historical consumption:

2.1.1.1 *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.

2.1.1.2 *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.

2.1.2 Verification methodology for Interval Meters

~~WA Gas Networks~~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 Vun, P, T and calculating *Vcr* 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 *Vcr* 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 *Vcr* 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 *Vcr* 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 *Vcr* 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.

2.1.2.1 *Device checks*

A range of checks are conducted on hourly data comparing Vun (volume uncorrected), *Vcr* (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 *Vcr* > 0 when Vun = 0. *Vcr* is calculated based on the hourly Vun, pressure and temperature and compared against the *Vcr* 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.

2.1.2.2 *Primary to Secondary checks*

Compares the incoming values for Vun, *Vcr*, 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.

2.1.2.3 *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 if 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**

  Vcr for the current gas day is compared against the *Vcr* for current gas day – 7.

2.1.2.4 *Pass / Fail Limits*

Pass and fail limits are set individually per site in ~~Alinta's~~ 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 latter 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.

2.1.3 Estimation of Data for Basic Meters

2.1.3.1 *Type 1 Estimation Methodology ("Same Time Last Year")*

~~WA Gas Networks~~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.

Mid Date = Start Date + ½ (Estimation Date – 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.

Mid Date = 31 Dec 2002 + ½ (31 Mar 2003 – 31 Dec 2002) = 14 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?*	

Average Daily Consumption = 6000/77 = 77.92 MJ/Day

Estimation date (31 Mar 2003) – Date of previous verified meter read (31 Dec 2002) x MJ/Day

= 90 x 77.92 = 7012.8MJ}

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.

2.1.3.2 *Type 2A Estimation Methodology ("Same Time Last Period")*

~~WA Gas Networks~~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 Start meter read	*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 MH		*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.

2.1.3.3 *Type 2B Estimation Methodology ("Average Daily Consumption")*

~~WA Gas Networks~~ATCO Gas Australia uses this estimation methodology where the Type 1 or Type 2A Estimation Methodologies could not otherwise be used (eg. 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.

2.1.3.4 *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.

Amend Appendix 1 and 2 as follows:

Appendix 1 – Coding of gas zones and gate points

{Note: This Appendix may be updated from time to time under rule 15.}

Sub-appendix 1.1 – Western Australia

1.1.1 Coding of gas zones

To minimise the number of data fields required in the *REMCo 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 =

B is used to segregate by licence area and *Access Arrangement* Coverage. B is a numerical field:

~~**WA Gas Networks**~~**ATCO Gas Australia in WA:**

1 = AGN MWSW GDS

2 = AGN Kalgoorlie

3 = AGN Albany

11 = Oakley Road (Pinjarra) (*farm tap sub-network*);

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 ~~WA Gas Networks~~ATCO Gas Australia MWSW GDS	11121
The Pinjarra sub network in ~~WA Gas Networks~~ATCO Gas Australia MWSW GDS	11101
The Kalgoorlie sub network in ~~WA Gas Networks~~ATCO Gas Australia Kalgoorlie GDS	12161

1.1.2 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 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 ~~WA Gas Networks~~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:
~~WA Gas Networks~~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 ~~WA Gas Networks~~ATCO Gas Australia MWSW GDS	1112D
The gate point on the Parmelia that supplies the North Metro sub network in ~~WA Gas Networks~~ATCO Gas Australia MWSW GDS	1106P
The gate point on the GGT that supplies the Kalgoorlie sub network in ~~WA Gas Networks~~ATCO Gas Australia Kalgoorlie GDS	1216G

Sub-appendix 1.2 – There is no Sub-appendix 1.2

Appendix 2 – Estimation and Verification Methodology

Sub-appendix 2.1 – Western Australia

2.1.1 Verification methodology for Basic Meters

There are two steps in the ~~WA Gas Networks~~ATCO Gas Australia basic meter validation; Validation of the meter readers data input and a trend check against historical consumption:

2.1.1.1 *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.

2.1.1.2 *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.

2.1.2 Verification methodology for Interval Meters

~~WA Gas Networks~~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 Vun, P, T and calculating *Vcr* 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 *Vcr* 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 *Vcr* 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 *Vcr* 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 *Vcr* 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.

2.1.2.1 *Device checks*

A range of checks are conducted on hourly data comparing Vun (volume uncorrected), *Vcr* (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 $Vcr > 0$ when Vun = 0. *Vcr* is calculated based on the hourly Vun, pressure and temperature and compared against the *Vcr* 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.

2.1.2.2 *Primary to Secondary checks*

Compares the incoming values for Vun, *Vcr*, 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.

2.1.2.3 *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 if 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**

  Vcr for the current gas day is compared against the *Vcr* for current gas day – 7.

2.1.2.4 *Pass / Fail Limits*

Pass and fail limits are set individually per site in ~~Alinta's~~ 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:

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2.1.3 Estimation of Data for Basic Meters

2.1.3.1 *Type 1 Estimation Methodology ("Same Time Last Year")*

~~WA Gas Networks~~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.

Mid Date = Start Date + ½ (Estimation Date – 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.

Mid Date = 31 Dec 2002 + ½ (31 Mar 2003 – 31 Dec 2002) = 14 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.

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77 Days *Consumption 6000 MJ*		*90 Days* *Consumption?*	

Average Daily Consumption = 6000/77 = 77.92 MJ/Day

Estimation date (31 Mar 2003) – Date of previous verified meter read (31 Dec 2002) x MJ/Day

= 90 x 77.92 = 7012.8MJ}

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.

2.1.3.2 *Type 2A Estimation Methodology ("Same Time Last Period")*

~~WA Gas Networks~~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.

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30 Sep 2002	*31 Dec 2002*	*31 Dec 2002*	*31 Mar 2003*
92 Days Consumption 5000 MH		*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.

2.1.3.3 *Type 2B Estimation Methodology ("Average Daily Consumption")*

~~WA Gas Networks~~ATCO Gas Australia uses this estimation methodology where the Type 1 or Type 2A Estimation Methodologies could not otherwise be used (eg. 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.

2.1.3.4 *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.