



GasNet Initial RAB

Engineer's Report

GasNet

27 September 2011

GasNet Initial RAB

Engineer's Report

Prepared for

GasNet

Prepared by

AECOM New Zealand Limited

Level 10, 135 Victoria Street, Te Aro, Wellington 6011, PO Box 27277, Wellington 6141, New Zealand
T +64 4 382 2999 F +64 4 382 2998 www.aecom.com

27 September 2011

AECOM in Australia and New Zealand is certified to the latest version of ISO9001 and ISO14001.

Quality Information

Document GasNet Initial RAB

Ref c:\my documents\gasnet\initial rab (2009)\report\2009 initial rab review report r5
20110927.doc

Date 27 September 2011

Prepared by Guenter Wabnitz

Reviewed by Graeme Hughson

Revision History

Revision	Revision Date	Details	Authorised	
			Name/Position	Signature
0	30/08/2011	Draft for client review	Graeme Hughson Technical Director	
1	27-Sep-2011	Final	Graeme Hughson Technical Director	

Table of Contents

Executive Summary	1
1.0 Introduction	2
1.1 Background	2
1.2 Responsibility	2
1.3 Process	3
1.4 Initial RAB Model	4
2.0 Methodology	5
2.1 Information Provided by GasNet	5
2.2 Site Meeting	5
2.3 Spot Checks	5
2.4 Asset Lives	6
3.0 Considerations of RAB Adjustments	7
3.1 Company's Application of Valuation Rules	7
3.2 GasNet's Operational Asset Value	8
3.3 GasNet's "Adjusted 2007 – 08 Infrastructural Asset Value" Process	9
3.4 Moving "Adjusted 2007 – 08 Infrastructural Asset Value" to Initial RAB	12
Appendix A	14
Appendix B	16
Appendix C	20

Executive Summary

This report was prepared as the Independent Engineer's Report by AECOM for GasNet in accordance with Schedule C of the section s53ZD Notice by the Commerce Commission (Commission) under the Commerce Act 1986.

The Report details the findings of the independent review. A copy of the signed statement as required by the s53ZD Notice is included in Appendix C.

The following table compares GasNet's 2009 NZIFRS disclosed valuation with its adjusted 2009 Initial RAB valuation (the asset value adjustment process).

Summary	30-Jun-09	30-Jun-09	Movement
Class of Asset	Value Reported under NZ IFRS	Initial RAB	
	(\$,000)	(\$,000)	(\$,000)
Infrastructural assets	\$20,810	\$21,498	\$688
Operational assets (allocated)	\$444	\$444	\$0
Total	\$21,254	\$21,942	\$688

The adjustments to the Company's disclosed valuation over the period 2004 through 2009 (year ending 30 June) are summarised below:

Year	2004	2005	2006	2007	2008	2009
	(\$,000)	(\$,000)	(\$,000)	(\$,000)	(\$,000)	(\$,000)
Value Adjustment	\$0	\$0	\$0	\$0	\$688	

A summary of adjustments is presented in the format proposed by the Commerce Commission in Appendix A.

1.0 Introduction

1.1 Background

The Commerce Commission (Commission) released its "Gas Distribution Services Input Methodologies" (GDB IMs) Determination under the Commerce Act in 2010. The GDB IMs outline a set of modifications (referred to as the "asset adjustment process") that a Gas Distribution Business (GDB) may choose to undertake for the determination of its 2009 Initial Regulatory Asset Base (Initial RAB).

As a supplier of gas distribution services, GasNet (the "Company") was served a Section 53ZD Notice (s53ZD Notice) by the Commerce Commission (Commission) under the Commerce Act 1986, which required the Company to submit, along with a number of other documents, an Engineer's Report to support its determination of the Initial Regulatory Asset Base (Initial RAB).

AECOM was engaged by the Company to review the modifications to its 2009 NZIFRS disclosed valuation and to prepare an Independent Engineer's Report in accordance with Schedule C of the section s53ZD Notice

This report explains the findings of the independent review. A copy of the signed statement required by the s53ZD Notice is provided in Appendix C.

1.2 Responsibility

AECOM's responsibility was the preparation of this report. We relied upon information and data prepared by the Company (either directly or indirectly). Specifically, AECOM relied on the accurate and complete transfer of data from the GIS system to the RAB model. We presumed accurate and consistent use of mathematical formulae. We undertook spot checks within the spreadsheets and checked the validity of the results by comparison with previous models and other direct or indirect information sources available to us.

For reasons of accuracy and completeness, we had to interact with the Company (either directly or indirectly) via email, phone discussions and meeting.

GasNet's Initial RAB valuation as at 30 June 2009 was performed by experienced GasNet employees, who had in our opinion sufficient experience to prepare such valuations. GasNet was assisted by Jim Coe of JT Consulting Limited, who in our opinion is well qualified for the data processing as performed.

AECOM reviewed GasNet's valuation from top-down and spot checked the methodology, the model and data, which enabled us to provide an independent opinion on the fair value of the assets. We point out that the responsibility for accuracy of data and calculations lies with GasNet and that our opinion cannot be used as advice for any purposes other than for the verification of GasNet's Initial RAB.

1.3 Process

AECOM was earlier engaged in the reviews of the 2000 and 2003 and 2008 ODV as well as the 2009 unpublished valuation, which had similar processes and data structures.

AECOM's RAB review focussed on the following elements of the asset adjustment process:

- i) assets omitted in error;
- ii) assets included in error; and
- iii) asset ages, quantity, category or locations incorrectly recorded.

The Company's processes particularly focused on the quality control of the transition from its previous ODV model to the new RAB model as well as from its previous paper based record system to its new GIS based record system. As a consequence of the improved systems, it was found that a number of assets were previously omitted or incorrectly valued. These are listed in the following table:

Omitted or value modified assets
mains and service asset adjustments (principally length data)
small sections of mains, e.g. road crossings
rail and river crossings including special fitting for mains installed on bridges
network valves including their access structures
services now including approximately 1,500 standby services, which are live and connected to points of supply currently not using gas, which are recorded on the GIS system but not on MIDaS, the billing system of GasNet
8 mini district regulator stations

1.4 Initial RAB Model

GasNet's Initial RAB model was based on earlier versions of the ODV model, which had the format of a Microsoft Excel workbook containing more than 40 spreadsheets. The Initial RAB (2009) model is also spreadsheet based, applying most of the previous methodologies and has grown to more than 50 spreadsheets, most of them cross referenced between each other. The workbook contains all relevant data and mathematical relationships.

The GIS data were "frozen at 30 June 2009", filtered and transferred into pivot tables, which were then transferred to the valuation spreadsheets of the model located on a separate computer, where they formed the official asset register.

In a joint exercise with GasNet and JT Consulting, we cross-checked the totals of the mains and services data held on the GIS and on the ODV model and found that they were aligned. The other, smaller asset categories were not checked this way, and we assume that they are accurately aligned.

Using GIS data the mains length increased and services length decreased. These changes were expected when GasNet switched to GIS records from other electronic and paper records during this year. GIS data contain a higher level of detail, and the digital evaluation is more accurate than the manual ones prepared in previous years. The data accuracy within the GIS has gradually improved from when the GIS system was first set up about six years ago. The reviewing of measurements is an ongoing process, which is estimated to be about 90% complete at this stage.

2.0 Methodology

2.1 Information Provided by GasNet

- Commerce Act (Gas Distribution Services Input Methodologies) Determination 2010, 22 December 2010
- Gazetted Gas Information Disclosures for Wanganui Gas Limited/GasNet Limited in the 2007-08, 2008-09 and 2009-10 financial years
- NZIFRS/ODV modelling for financial year ending 30 June 2008
- Process and summary data notes to determine adjustments as at 30 June 2008 and to move this forward to 30 June 2009
- 2008 Network Valuation Report Using ODV Methodology as at financial year ending 30 June 2008
- MIDaS datasets for financial years ending 30 June 2008, and 30 June 2009
- GIS datasets for the financial years ending 30 June 2008 and 30 June 2009
- Related data files for DRS, NMS, crossings
- MS Excel spreadsheet titled "Non Infrastructure Assets for RAB 2010 20110922.xls".

AECOM also received information via email, phone discussions and meeting.

2.2 Site Meeting

GasNet employees, who prepared the Initial RAB (2009) model, were interviewed at GasNet's office on 2 and 3 August 2011. At that time, we viewed and discussed the Initial RAB (2009) model and the GIS system. We visited various valves and crossings sites in Wanganui.

At the previous unpublished review in 2009, MIDAS data, drawings, gate station metering data, pressure recorder charts and various documents used for asset pricing were inspected.

2.3 Spot Checks

We carried out the following spot checks:

- a) the RAB modelling methodology;
- b) the setup of the workbook with its spreadsheets;
- c) data aggregation for mains and services;
- d) the workings of the Control Sheet and its effects on the other worksheets;
- e) data transfer into the summary spreadsheets, e.g. RC, DRC, Network Changes at NZIFRS, Initial RAB;
- f) RC rate calculations;
- g) Project Management cost calculations.

We discussed organisational matters and asset management issues.

2.4 Asset Lives

GasNet used asset lives which are consistent with those found in its 2008 revaluation for all known/existing asset types. For assets types newly included to the RAB, GasNet used asset lives consistent with the Commission's IM Determination.

3.0 Considerations of RAB Adjustments

This section sets out the adjustments to the Company's 2009 disclosed valuation made under the asset adjustment process.

3.1 Company's Application of Valuation Rules

The following rules, based on GasNet's interpretation of the Commission's IM Determination at subpart 2 Asset Valuation at section 2.2.1-2.2.3, have been applied to the Company's assets constituting the gas distribution service.

- a) For assets constituting the gas distribution services, which are not 'value modified', their Initial RAB value is as stated in the 2009 disclosure financial statements (or implicit thereto).
- b) GasNet disclosed the value of fixed assets constituting the gas distribution services under NZIFRS valuation methodology in 2008 and 2009.
- c) GasNet's fixed assets constituting the gas distribution services were most recently revalued under the Gas (Information Disclosure) Regulations 1997 as at 30 June 2008.
- d) The included value or modified value of an asset discussed in section 2.2.1 subsection (2)(c), specified under section 2.2.1, subsection (6) would be determined by:
 - application of the NZIFRS methodology used as at 30 June 2008; adjusting the value consistent with section 2.2.1 subsection (6)(c) to produce a value as at 30 June 2009, or
 - if commissioned in 2009, then their Initial RAB value is as stated in the 2009 disclosure financial statements (or implicit thereto).
- e) GasNet undertook processes to determine asset types designated as 'excluded', 'included' and 'value modified'.
- f) Section 2.2.1 at subsection 2(a) and thus subsections (3) and section 2.2.3 subsection 1(b) do not apply to GasNet as it is not NGC Holdings Limited nor a subsidiary company thereof; nor is it Powerco Limited or Vector Limited.
- g) GasNet does not consider it has need to designate an asset consistent with section 2.2.1 subsection (2)(b) as all assets it wishes to have within the Initial RAB are adequately covered under section 2.2.1 subsection (4)(c) to (e).
- h) GasNet considers that the following assets were eligible to be 2009 disclosed assets and thus designated as of 'included' type:
 - Standby services (commissioned services available for consumer use);
 - Network valves and their access;
 - Crossings;
 - Mini DRS installations;

and that these are 'assets omitted in error' under section 2.2.1 (2)(c)(i).

- i) GasNet considers that the following assets as 2009 disclosed assets should be designated as of 'value modified' type:

- Mains lengths, diameters and materials;
- Service lengths, diameters and materials and associated risers;
- District Regulator Stations;
- Network Monitoring Station;

and that these were allocated to the incorrect asset category, or given an estimation of quantity, age category or location now known to be incorrect under section 2.2.1 (2)(c)(iii).

- j) GasNet considers that there are no assets as 2009 disclosed assets that should be designated as of 'excluded' type.
- k) GasNet's gas distribution services are fully separated in to a single regulated service and thus section 2.2.3 subsections (2) and (3) are not applicable.
- l) Further GasNet considers that it has acted completely consistently with its declared position previously submitted to the Commission on these matters.

AECOM considered the above rules for applicability to the task of preparing the Initial RAB and is of the opinion that they are fair and reasonable.

3.2 GasNet's Operational Asset Value

GasNet undertook a detailed analysis of operational assets inclusive of software for the 2009-10 financial year. Based on that analysis, the opening carrying value as at 30 June 2009 (Value Reported under NZ IFRS) for all operational assets (inclusive of software) was \$464,000 (rounded to the nearest thousand) and of this, regulated service was **\$444,000** (rounded to the nearest thousand).

In terms of the input methodology the \$444,000 (rounded to the nearest thousand) is made up of:

- \$101,000 (rounded to the nearest thousand) in accordance with IM2.1.1(1)(b) Regulated Service Assets Values were allocated to Gas Distribution Services for those assets that were "Directly Attributable";
- \$0 in accordance with IM2.1.1(2)(b) as this does not apply as GasNet does not provide any "Other Regulated Service";
- \$343,000 (rounded to the nearest thousand) in accordance with IM2.1.2(4)(b) ACAM was applied to the allocation of Regulated Service Asset Values not Directly Attributable as the total value of Regulated Service Asset Values not Directly Attributable less any Arm's Length Deductions (nil) is less than 10% of the Aggregated Unallocated Closing RAB value.

Given the nature of these assets and modest value, only the carrying value as at 30 June 2009 is provided in section 3.4 below.

3.3 GasNet's "Adjusted 2007 – 08 Infrastructural Asset Value" Process

GasNet has consistently disclosed infrastructural asset data in the NZ Gazette on a Directly Attributable basis and thus for the regulated service there is no allocation necessary.

While the Commission requires the Initial RAB to be as at the balance date of the respective company in 2009 (for GasNet this is 30 June 2009), GasNet had to start at the 2008 disclosed NZIFRS valuation as 2008 was the last time GasNet undertook a fully audited revaluation under the Gas (Information Disclosure) Regulations 1997. The data below is reproduced from the NZ Gazette Supplement No. 182 of 9th December 2009:

Summary			1 July 2008
Class of Asset	Value Reported under cost/revaluation	Accumulated Depreciation & Impairment under NZ IFRS	Value Reported under NZ IFRS
Infrastructural assets	\$22,846,389	-\$1,755,673	\$21,090,717
Totals	\$22,846,389	-\$1,755,673	\$21,090,717

The 'Infrastructural assets' are overstated to the extent of time-of-use installations associated with specific GMS sites being included in the distribution network asset type called 'Other'. The asset class traditionally included easements, facilities and stores; with facilities including time-of-use installations and cathodic protection. The overstatement is calculated at \$68,000 (rounded to the nearest thousand).

Summary -	1 July 2008	Adjustment	1 July 2008
Class of Asset	Value Reported under NZ IFRS		Value Reported under NZ IFRS
Infrastructural assets	\$21,090,717	-\$67,903	\$21,022,814
Totals	\$21,090,717	-\$67,903	\$21,022,814

Thus the corrected starting value is **\$21,023,000** (rounded to the nearest thousand). From the above starting point the Company needed to:

- make asset adjustments (discussed in this section) and
- move the adjusted asset value forward to the 2009 year (discussed in section 3.4 below).

Found and Lost Assets

GasNet had been using a series of revaluation models since around 1998 which had undergone some revision and extension over approximately a decade. The resulting 2007-08 revaluation was reviewed by AECOM (engineering review) and PricewaterhouseCoopers (financial review) and the resulting documentation examined by Audit NZ as part of its annual company audit.

In regard to the 2007-08 financial year, applicable notes are found in the Company's 2008 Network Valuation Report entitled '2008 Network Valuation Report Using ODV Methodology as at financial year ending 30 June 2008'; however a few critical points are summarised here:

- the traditional valuation processes were used which relied on:
 - paper based records (Block Sheets) for all mains length, material and diameter data, together with Reticulation Statistics Records
 - default length, material and diameter data for services based on an in-service count of GMS, together with Service Record Cards
 - default Design Sheets for District Regulator Stations (DRS)
 - Records for Cathodic Protection installations, easements etc.
- GasNet intended to utilise GIS information in the 2008/09 valuation to determine mains and service length, material and diameter data
- GasNet had determined that it should also revise what assets constituted its distribution network assets with a project to be undertaken during the next financial year looking at:
 - Inclusion of Gas Gate Station assets
 - Revision of DRS design sheets
 - Inclusion of mini-DRS assets
 - Inclusion of crossings (rail, bridge, other), and
 - If resourcing allowed, inclusion of network valves and standby service assets

In preparation of a formal revaluation as at 30 June 2009, GasNet prepared a new model designed to provide NZIFRS (and ODV) valuation information with drill down detail, and include the extended range of asset classes that the Company was satisfied were providing gas distribution services. The resulting model referred to here as the 'new model' included all but network valves and standby service assets. The new model was reviewed by AECOM (engineering review) and documented to comprehensive draft version; but was put in abeyance due to the regulatory uncertainty. GasNet then developed its 2009 disclosed valuation from the 2008 disclosed value adjusted by financial calculations derived from the Company's financial management system for added commissioned assets, less calculated depreciation and impairment during the twelve months from 1 July 2008 to 30 June 2009.

In 2011 GasNet decided to revisit the new model created in 2009 and use it to calculate the equivalent 2007-08 revaluation outcome, adjusted for time-of-use GMS assets. Then the adjustments associated with availability of GIS data and inclusion of more asset types, discussed above together with inclusion of network valves and standby service assets resulted in the following asset adjustments:

Summary	30 June 2008	Adjustment	1 July 2008
Class of Asset	Value Reported under NZ IFRS	under NZ IFRS	under NZ IFRS
Infrastructural assets			
Mains	\$14,986,818	\$507,979	\$15,494,797
Services	\$5,512,365	-\$275,890	\$5,236,475
Facilities	\$284,244	-\$29,432	\$254,811
Crossings	not included	\$344,846	\$344,846
Others	\$239,387	\$6,260	\$245,647
Network Valves	not included	\$96,432	\$96,432
Impairment credit from EV		\$38,423	\$38,423
Totals	\$21,022,814	\$688,618	\$21,711,431

The major changes relate to the classes of mains, services, crossings and network valves. The data for these asset classes is sourced from GIS extracts which due to their improved accuracy (combination of length, material and diameter data adjustments):

- moves the mains value up (found assets)
- services (and including standby services) value down (lost assets),
- crossings were introduced as a found asset class, and
- network valves were introduced as a found asset class.

The minor changes are due to introduction of spares to the asset class of 'Other'; under the asset class of 'Facilities', introduction of mini-DRS and revised design requirements for DRS and a different presentation of impairment.

The preceding commentary was substantially provided by the Company. AECOM comprehensively considered this material and is of the opinion that it is fair and reasonable.

3.4 Moving “Adjusted 2007 – 08 Infrastructural Asset Value” to Initial RAB

The following commentary was substantially provided by the Company. AECOM comprehensively considered this material and is of the opinion that it is fair and reasonable.

The final step was to add to this the disclosed movements (a change of -\$213,000 as shown in ‘Disclosed movements for the 2008-09 financial year’ below) for the 2008-09 financial year as shown in the supplement to New Zealand Gazette of Thursday 3 December 2009 (Issue No. 182).

Summary	30 June 2009	Disclosed	Disclosed	30 June 2009
Class of Asset	Adjusted	Additions & Disposals	Depreciation & Impairment	Initial RAB
	(\$,000)	(\$,000)	(\$,000)	(\$,000)
Operational assets (allocated)	refer to section 3.2 above			\$444
Infrastructural assets				
Mains	\$15,495	\$63	-\$407	\$15,151
Services	\$5,236	\$337	-\$180	\$5,393
Facilities	\$255	\$0	-\$26	\$229
Crossings	\$345	\$0		\$345
Others	\$246	\$0		\$246
Network Valves	\$96	\$0		\$96
Impairment credit from EV	\$38			\$38
Totals (A)	\$21,711	\$400	-\$613	\$21,942

Carrying value at 30/6/2009 as reported in NZ Gazette Supplement No. 182				
	Value Reported under NZ IFRS	Additions	Depreciation & Impairment	Carrying Amount
Operational assets (allocated)	refer to section 3.2 above			\$444
Infrastructural assets	\$21,091	\$400	-\$613	\$20,878
- refer to section 3.3	-\$68			-\$68
Totals (B)	\$21,023	\$400	-\$613	\$21,254
Changes (Totals A-B)	\$688	\$0	\$0	\$688

There are no 'Depreciation and Impairment' values for Crossings and Network Values as these are found assets for the year and recorded at their DRC values. Also the asset class of Others includes easements, spares and stores which were not depreciated.

Acknowledging that not all asset data is accurately known due to limitations in historical record keeping, GasNet has advised that it is not aware of any assets with nil physical asset life as at 30 June 2009 or at end of the disclosure year 2010.

In conclusion, the Initial RAB (as at 30 June 2009) is calculated as **\$21,942,000** (rounded to nearest thousand). This value is some \$688,000 (rounded to nearest thousand) higher than the previously gazetted carrying value for the same period.

Appendix A

Table Summary of Asset Value Adjustments: Schedule A4

						GDB Name	GasNet Limited
						Disclosure Year Ended	30 June 2010
SCHEDULE A4: ASSET ADJUSTMENT PROCESS							
row							
6	Summary of Engineer's Valuation Adjustments (at time asset enters regulatory asset register)						
7	Show only the incremental amount of the valuation adjustment						Year Ended
8	Asset adjustment process - adjustments	2003 *	2004 *	2005	2006	2007	2008
9		(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
10	Include assets used to supply gas distribution services						Ref
11	Correct asset register errors						2.2.1(2)(b)
12	Mains						508
13	Services						(276)
14	Facilities						(29)
15	Crossings						345
16	Others						6
17	Network Valves						96
18	Impairment credit						38
19							
20							
21							
22		-	-	-	-	-	688
23							2.2.1(2)(c)
24	Total value of adjustments by disclosure year	-	-	-	-	-	688
25	* Includes assets which first entered the regulatory asset register in a disclosure year prior to 2004.						
26							

Appendix B

GasNet's Instructions to Engineer

GasNet Limited Initial Regulatory Asset Base Requirements for the Engineer's Report July 2011

1.0 BACKGROUND

As a supplier of gas distribution services, GasNet (the "Company") has been served a Section 53ZD Notice (s53ZD Notice) by the Commerce Commission (Commission) under the Commerce Act 1986 which requires the Company to submit, along with a number of other documents, an Engineer's Report which supports its determination of the Initial Regulatory Asset Base (Initial RAB).

2.0 DEFINITION

Company	means GasNet Limited
Engineer	has the same meaning as clause 1.1.4 of the GDB IMs
Engineer's Report	means the report completed by the Engineer which satisfies the requirements of this document and the s53ZD Notice
GDB	means the supplier of Gas Distribution Services and has the same meaning as defined in the IMs
GDB IMs	means the Commerce Act (Gas Distribution Services Input Methodologies) Determination 2010
Initial RAB	has the same meaning as clause 1.1.4 of the GDB IMs
s53ZD Notice	means the Commerce Commissions "Notice to Supply Information to the Commerce Commission Section 53ZD of the Commerce Act 1986" dated 06 July 2011 and addressed to GasNet Limited

2.0 OBJECTIVE

The objective of the Engineers' review is to provide a report in compliance with this scoping document and which meets the requirements of "Information Requirements for Engineer's Report" (Schedule C) of the s53ZD Notice.

3.0 CERTIFICATION OF THE ENGINEER

The person managing the review and completing the Engineer's Report shall meet the requirements of an Engineer as specified in Clause 1.1.4 of the GDB IMs and provide written confirmation of the same.

4.0 ROLE OF THE ENGINEER

It is the role of the Engineer to:

- appraise the methodologies used and the conclusions made by the Company in its determination of the Initial RAB
- check for material errors and omissions in the calculations applied
- satisfy the Company's obligations to the Commission with respect to its provision of the Engineer's Report.

5.0 ENGINEER'S REPORT

5.1 Timing

The documents and files relating to the Initial RAB (referred to in 5.2(c) below), will be available to the Engineer from 20 July 2011.

In order for the Company to meet its 30 September 2011 deadline the report must be completed by the end of August 2011.

5.2 Reference

The following documents and files are key items of reference;

- (a) s53ZD Notice;
- (b) GDB IMs;
- (c) Initial RAB comprising the following documents and files:
 - (i) Gazetted disclosures for 2008 and 2009 30 June ending years
 - (ii) 2008 revaluation model
 - (iii) 2009 revaluation model with 2008 data
 - (iv) summary comparison of 2008 and 2009 models with 2008 data
 - (v) 2009 model with gazetted 2009 data
 - (vi) adjustment steps from 2009 model with gazetted 2009 data to Initial RAB model
 - (vii) summary comparison of 2009 & Initial RAB models with 2009 data

5.3 Requirements

The Engineer's Report must as a minimum:

- (a) be in writing and be accessible in electronic (PDF file-type) format;
- (b) provide verification and commentary on the Company's methodologies and their application and completeness with specific reference to:
 - (i) reconciliation of RAB related aspects of the 2008 revaluation model used for the most recent revaluation (30 June 2008) with the same 2008 data in a new model developed in 2009. The 2009 model was developed to accommodate a change in source data, most notably that from the Company's Geographic Information System (GIS) but was held in-abeyance;
 - (ii) reconciliation of RAB related aspects of the asset adjustment process from the 30 June 2008 valuation to devise the 30 June 2009 Initial RAB;
 - (iii) GDB IMs asset treatments
- (c) include a table summarising the various asset value adjustments and corresponding to Schedule A4 of the Information Disclosure Notice Templates contained within the s53ZD Notice;
- (d) provide the minimum information for each category of asset adjustment outlined in Schedule C at Table 1 contained within the s53ZD Notice, together with such additional information sufficient to allow a reader of the report:
 - (i) to understand the data, information, calculations and assumptions employed in respect of each category of asset adjustment;
 - (ii) to understand the extent to which professional judgement was exercised by the Engineer and the effect of that judgement in deriving the resultant asset values; and
 - (iii) to verify the arithmetical accuracy of the asset adjustment calculations.
- (e) include a signed statement by the Engineer that:
 - (i) the ODV rules have been properly applied, and associated quantity and life parameters tested for assets which had not had an ODV valuation calculated originally; all as required by clause 2.2.1 of the GDB IMs;
 - (ii) where values under Generally Accepted Accounting Practice have been relied on, those values have been supplied or reviewed by an appropriately qualified party (e.g. accounting practitioner); and
 - (iii) the report meets the requirements of Schedule C of the s53ZD Notice.



GasNet Limited
8 Cooks Street
PO Box 7148
Wanganui 4541

13 July 2011

Guenter Wabnitz
Principal Consultant - Energy & Economics
AECOM
PO Box 27277
Wellington 6141

Telephone: (06) 349 2030
Fax: (06) 349 0135
www.gasnet.co.nz

Dear Guenter

Re: Engineers Report Proposal

Thank you for your proposal to provide an Engineers Report in relation to the establishment of GasNet's Regulatory Asset Base (RAB)

I can confirm that GasNet is seeking to update our RAB in accordance with the Commerce Commission's Input Methodology Determination and are requesting AECOM to undertake a review of the asset adjustment process.

AECOM is required to review the 2009 RAB and deliver an Engineering Report based on the 2008 ODV and any associated adjustments. The report is required to meet the specifications in Schedule C of the s53ZD Information Request Notice.

GasNet will provide and make available any resources, information and key personnel to assist you with your review and find attached our scoping document.

This letter and any subsequent variations must be contained in the report as evidence of a formal engagement.

We are required to submit the 53ZD response to the Commission by 30 September 2011, so will require your report prior to this time.

Please do not hesitate to contact me if you require any further information.

Regards

A handwritten signature in black ink, appearing to read "Greg O'Malley".

Greg O'Malley
Finance and Administration Manager

Appendix C

Statement by the Engineer

Certification

We herewith certify that: -

1. This Report was completed by an Engineer as defined in clause 1.1.4 of the Commerce Act (Gas Distribution Services Input Methodologies) (GDBIMs) Determination 2010 ('GDB IMs'). The Engineer and author of this report, Guenter Wabnitz, is: -
 - a) a chartered professional engineer as defined in s6 of the Chartered Professional Engineers Act 2002;
 - b) acting in that professional capacity; and
 - c) independent.
2. Mr. Wabnitz is qualified to assess the validity of the 'asset adjustment process' for the setting of the initial regulatory asset base (RAB) as set out in clause 2.2.1 of the GDBIMs .
3. A copy of the instructions by the GDB, GasNet, is included in Appendix A.
4. The Executive Summary of this report includes the table summarising the various asset value adjustments and explains the data, information and assumptions employed and the professional judgement exercised by the Engineer.
5. The Executive Summary also identifies the valuations that were prepared on the basis of professional judgement exercised by a qualified accounting practitioner.

In summary, we certify that: -

- a) We are satisfied that GasNet's original valuation model was developed in accordance with the Gas (Information Disclosure) Regulations 1997.
- b) We are satisfied that the subsequent adjustments to that model are consistent with the rules under the Commerce Act (GDSIMs) Determination 2010.
- c) We are satisfied that the outputs of GasNet's model fairly reflect the quantities and physical lives of the assets.
- d) We are satisfied that the adjustments performed by GasNet meet the requirements of Schedule C (Minimum Information Requirements for Adjustments to Assets) in accordance with Commerce Commission's Notice to Supply Information under Section 53ZD of the Commerce Act 1986.

Wellington, 27 September 2011



.....
Guenter Wabnitz
Principal Consultant / Independent Engineer
AECOM Limited



.....
Graeme Hughson
Associate Director
AECOM Limited

17 July 2012

Geoff Evans
General Manager
GasNet
PO Box 7149
Wanganui 4540

Addendum to GasNet Initial RAB Engineer's Report

This Addendum to the Engineer's Report on GasNet's Initial RAB dated 27 September 2011 provides further explanations and follows queries identified by the Commerce Commission in its "Updated Process Paper of 19 June 2012" with regard to adjustments of the regulatory asset base in the Engineer's Report on GasNet's Initial RAB dated 27 September 2011.

Please note that the Engineer's Report summarised and certified GasNet's Initial RAB calculations, which were detailed in a set of spreadsheets that formed together with the Engineer's Report an integral documentation of the methodology and the applied calculation steps.

1. Query relating to Network Spares

The following is a breakdown of spares:

Others			
Components	Value	Stated Value	Comment
Easements	HC	\$71,000	No change
Stores	HC	\$168,387	No change
Spares	HC	\$6,260	Discussed below
		\$245,647	

Source: Engineer's Report at section 3.3, page 11 and "GasNet Val Model – Initial RAB – V1.xls" at worksheet tab "Initial RAB".

The "Reasons Paper" dated December 2010 indicated that GPBs should include network spares as additions to the regulatory asset base, where they were held in appropriate quantities considering the historical reliability of the equipment and the number of items installed on the network. GasNet holds two EC-AT correctors (one refurbished) as spares at a total value of \$6,260 as shown above.

GasNet considers two spare correctors entirely appropriate for reasons of operational flexibility, responsiveness to potential faults and its stand-alone business structure.

2. Query relating to additional information in the Summary Tables

The following table is extracted from the Engineer's Report at section 3.3, page 11

Summary	30 June 2008	Adjustment	1 July 2008
Class of Asset	Value Reported		
	under NZ IFRS	under NZ IFRS	under NZ IFRS
Infrastructural assets			
Mains	\$14,986,818	\$507,979	\$15,494,797
Services	\$5,512,365	-\$275,890	\$5,236,475
Facilities	\$284,244	-\$29,432	\$254,811
Crossings	not included	\$344,846	\$344,846
Others	\$239,387	\$6,260	\$245,647
Network Valves	not included	\$96,432	\$96,432
Impairment credit from EV	not included	\$38,423	\$38,423
Totals	\$21,022,814	\$688,618	\$21,711,431

The adjustments are detailed as follows:

Changes						
Class of Asset	Asset life	Change in Quantity	Value Reported	Value Reported	Impairment	Value Reported
	yrs	m or No.	under RC	under DRC	under NPV	under NZ IFRS
Mains (m)	50-70	11,686	\$182,636	\$502,511	\$5,468	\$507,979
Services (m)	50-70	-25,071	-\$557,557	-\$246,406	-\$29,484	-\$275,890
Facilities	10-40	7	-\$11,038	-\$29,432	\$0	-\$29,432
GMS	n/a	n/a	\$0	\$0	\$0	\$0
Crossings (Crgs)	40-70	44	\$677,426	\$344,846	\$0	\$344,846
Others	10-40	2	\$6,260	\$6,260	\$0	\$6,260
Network Valves	50-70	154	\$158,360	\$96,432	\$0	\$96,432
Impairment credit from EV	n/a	n/a	\$0	\$0	\$38,423	\$38,423
Totals			\$456,087	\$674,211	\$14,407	\$688,618

As expressed in the Engineer's Report at section 3.3 page 11, the major changes relate to the classes of mains, services, crossings and network valves. The data for these asset classes is sourced from GIS extracts, which improved their accuracy (combination of length, material and diameter data adjustments).

The use of GIS data provided not only improved physical accuracy but also better installation history, i.e. a change in age profile, which was an additional reason for the observed DRC value changes.

3. Query regarding Impairment “Credit”

In accordance with the ODV methodology, GasNet performed an economic adjustment of marginal assets as follows:

Summary					
	Location	ODRC	EV	ODRC Writedown	EV add on
Case 1	Dickens Lane	\$ 40,892	\$ 1,983	\$ 38,909	\$ 1,983
Case 2	Longbeach Drive/ Golf Vue	\$ 63,165	\$ 14,544	\$ 48,620	\$ 14,544
Case 3	Pickwick Road	\$ 48,518	\$ 1,496	\$ 47,022	\$ 1,496
Case 4	Riverbank Road/Anzac Parade	\$ 73,494	\$ 4,564	\$ 68,931	\$ 4,564
Case 5	George_ Street, Bulls	\$ 41,853	-\$ 374	\$ 41,853	\$ -
Case 6	Parewanui Road (Flockhouse)	\$ 194,303	\$ 15,836	\$ 178,467	\$ 15,836
		\$ 462,225	\$ 38,049	\$ 423,802	\$ 38,423

Source: GasNet Valuation Model “EV Calcs” sheet

In accordance with this worksheet, six mains and associated services were partly or totally written off by a total of **\$423,802**. The calculation methodology was the following:

- ODRC calculation
- EV assessment
- ODRC write-down
- “EV add-on”, where the assets had some remaining economic value. This calculation was balancing adjustment as a consequence of the spreadsheet setup. The exception was George Street, Bulls with negative economic value (making losses), which was completely written off and not included in the “EV Add-On” summary.

4. Query regarding the legitimacy of ORDC and EV Adjustments

As explained in the Initial RAB Report, optimisation adjustments and economic write-downs as explained above followed GasNet’s conservative approach in asset valuations and are entirely legitimate in accordance with the Commerce Act.

Yours sincerely



Guenter Wabnitz
Principal Consultant
guenter.wabnitz@aecom.com

Mobile: +64 21 61 62 55
Direct Dial: +64 4 382 2975
Direct Fax: +64 4 382 2998

28 August 2012

Geoff Evans
General Manager
GasNet
PO Box 7149
Wanganui 4540

Second Addendum to GasNet Initial RAB Engineer's Report

1. Summary

Further to:

- our certification of GasNet's initial RAB dated 27 September 2011, and
- an addendum dated 17 July 2012 explaining four queries by the Commerce Commission,

this "Second Addendum to the Engineer's Report on GasNet's Initial RAB dated 27 September 2011" is relating to GasNet's review of its Initial RAB with the help of a new model. The New Model, dated 22 August 2012 was using exactly the same data as the original model and was extracted from GasNet's GIS data base.

The difference is

- a) the New Model, developed for the Commission's IM Determination roll forward rules, calculates the RAB for each individual asset, line by line, for a total of 19,776 assets;
- b) the Original Model, available for the Engineer's Report, was derived from earlier spreadsheet models, which had been developed for ODV calculations. This model summarised asset groups and adjusted the values group-wise from RC to ODV. Over the years, the model was updated with additional functionalities, the most recent ones for the purpose of the Initial RAB calculation.

Compared with the Original Model, the New Model appears very simple, and assets can be traced individually on the basis of their asset number. GasNet tested both models with the same set of data and found a difference in value of \$482,406, which is 2.2% of the original Initial RAB calculation. The differences detailed by asset category (rounded to \$1,000) are as follows:

Summary of Assets	new Init. RAB	original Init. RAB	Difference
Date	22-Aug-12	27-Sep-11	
Crossings	\$346,000	\$ 345,000	\$ 1,000
Facilities	\$ 252,000	\$ 229,000	\$ 23,000
Mains	\$ 15,210,000	\$ 15,151,000	\$ 59,000
Operational Assets	\$ 453,000	\$ 444,000	\$ 9,000
Other	\$ 241,000	\$ 246,000	-\$ 5,000
Services	\$ 5,790,000	\$ 5,393,000	\$ 397,000
Valves	\$ 94,000	\$ 96,000	-\$ 2,000
Impairment Credit from EV	\$ 38,000	\$ 38,000	\$ -
Grand Total	\$ 22,424,000	\$ 21,942,000	\$ 482,000

2. Adjusted Tables in Engineer's Report

With reference to our Engineer's Report, the New Initial RAB Model resulted in the following updates:

a) NZ IFRS Adjustments (Page 11)

Summary	30 June, 2008	Adjustment	1 July, 2008
Class of Asset	Value Reported under NZ IFRS	under NZ IFRS	under NZ IFRS
	(\$,000)	(\$,000)	(\$,000)
Infrastructural assets			
Mains	\$14,987	\$595	\$15,581
Services	\$5,512	\$168	\$5,680
Facilities	\$284	\$-25	\$259
Crossings	not included	\$345	\$345
Others	\$239	\$2	\$242
Network Valves	not included	\$97	\$97
Impairment credit from EV		\$38	\$38
Totals	\$21,022	\$1,220	\$22,242

b) Initial RAB with Additions and Depreciation (Page 12)

Summary	30 June, 2008	Calculated (New RAB Model)	Calculated (New RAB Model)	30 June, 2009
Class of Asset	Adjusted	Additions & Disposals	Depreciation & Impairment	Initial RAB
	(\$,000)	(\$,000)	(\$,000)	(\$,000)
Operational assets (allocated)	refer to section 3.2 above			\$453
Infrastructural assets				
Mains	\$15,582	\$122	-\$494	\$15,210
Services	\$5,681	\$264	-\$155	\$5,790
Facilities	\$259	\$10	-\$17	\$252
Crossings	\$344	\$14	-\$12	\$346
Others	\$241	\$0	\$0	\$241
Network Valves	\$97	\$0	-\$3	\$94
Impairment credit from EV	\$38			\$38
Totals (A)	\$22,242	\$410	-\$681	\$22,424

c) Additions and Depreciations Detailed (Page 12)

Carrying value at 30/6/2009 as reported in NZ Gazette Supplement No. 182				
	Value Reported under NZ IFRS	Additions	Depreciation & Impairment	Carrying Amount
Operational assets (allocated)	refer to section 3.2 above			\$444
Infrastructural assets	\$21,090	\$400	-\$613	\$20,878
- refer to section 3.3	-\$68			-\$68
Totals (B)	\$21,022	\$400	-\$613	\$21,254
Changes (Totals A-B)	\$1,220	\$10	-\$68	\$1,170

3. Valuation Model History

The following table shows the history of GasNet's valuation models:

Year	Methodology	Purpose
1998	ODV from manual data and records	electronic data capture
2000	ODV Handbook	Information disclosure
2001	GIS installed	for improved data capture
2003	ODV Handbook	revaluation financial disclosure (FRS3)
2007	NZ IFRS	financial reporting
2008	NZ IFRS	financial reporting
2009	RAB review	revised model, but not published
2011	Initial RAB model using GIS Data as of 2008 and disclosed movements for 2009 plus operational assets	Initial RAB
2012	New Model	Commerce Commission compliance

4. New Model

The New Model has the following advantages over the previous models:

- a) Commerce Commission compliant;
- b) simplicity;
- c) greater stability;
- d) auditability;
- e) easy data cleansing;
- f) easy reporting of changes caused by data cleansing on GIS.

5. Causes for Value Difference

The two main causes for the 2.2% difference of value were:

- a) \$391,470 of the above listed \$396,514 in the Services Category was caused by an incorrect setting of “flags” in the Original RAB model affecting the valuation of LP and MP services. This was simply a “human error” that occurred at the time when switching from estimated length (25 m) to “as-built” length.
- b) \$58,574 of the Mains category, mostly relating to incorrect length adjustments made for “Crossings”. This was an incorrect manual adjustment, which was found when the New Model was completed.
- c) Other differences had minor impact and were mainly related to data cleansing that were not correct in the original Initial RAB model. The data cleansing is an ongoing process performed by GasNet, mainly recording accurate service lengths, and is estimated to be 95% complete.

6. Spot Checks Carried Out

We prepared the following spot checks on the new model:

- a) We compared the values of the two models.
- b) We interviewed the authors of the models and discussed the variations.
- c) We checked the consistency of formulae in GasNet’s New Model.
- d) We checked the sums.

7. Certification

In addition to our Engineer's Report on GasNet's Initial RAB dated 27 September 2011, we certify the following:

- a) GasNet's New Model has a higher accuracy compared with its Original Initial RAB Model;
- b) GasNet made significant efforts in improving its RAB modelling;
- c) we are confident in the thorough processes that GasNet applied in the testing of the New Model.

8. Recommendation

We recommend that GasNet's New Model be used for the Initial RAB valuation of 2009 and all future updates.



Guenter Wabnitz
Principal Consultant
guenter.wabnitz@aecom.com

Mobile: +64 21 61 62 55
Direct Dial: +64 4 382 2975
Direct Fax: +64 4 382 2998