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## 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

- 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;
- 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	
<b>Crossings</b>	<b>\$346,000</b>	\$ 345,000	\$ 1,000
<b>Facilities</b>	<b>\$ 252,000</b>	\$ 229,000	\$ 23,000
<b>Mains</b>	<b>\$ 15,210,000</b>	\$ 15,151,000	\$ 59,000
<b>Operational Assets</b>	<b>\$ 453,000</b>	\$ 444,000	\$ 9,000
<b>Other</b>	<b>\$ 241,000</b>	\$ 246,000	-\$ 5,000
<b>Services</b>	<b>\$ 5,790,000</b>	\$ 5,393,000	\$ 397,000
<b>Valves</b>	<b>\$ 94,000</b>	\$ 96,000	-\$ 2,000
<b>Impairment Credit from EV</b>	<b>\$ 38,000</b>	\$ 38,000	\$ -
<b>Grand Total</b>	<b>\$ 22,424,000</b>	<b>\$ 21,942,000</b>	<b>\$ 482,000</b>

## 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
<b>Totals</b>	<b>\$21,022</b>	<b>\$1,220</b>	<b>\$22,242</b>

### 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
<b>Totals (A)</b>	<b>\$22,242</b>	<b>\$410</b>	<b>-\$681</b>	<b>\$22,424</b>

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
<b>Totals (B)</b>	<b>\$21,022</b>	<b>\$400</b>	<b>-\$613</b>	<b>\$21,254</b>
<b>Changes (Totals A-B)</b>	<b>\$1,220</b>	<b>\$10</b>	<b>-\$68</b>	<b>\$1,170</b>

### 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.



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