

# AlintaGas Networks Revised Access Arrangement Information For the Mid-West and South-West Gas

**Distribution Systems** 

Submitted 21 March 2005

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## **Access Arrangement Information**

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## 1 Introduction and Purpose

On 31 March 2004, Alinta Gas Networks Pty Ltd (AGN) submitted to the Economic Regulation Authority (the Regulator) a revision to the Access Arrangement approved on 18 July 2000. As part of that submission AGN provided further information in the form of an Access Arrangement Information (AAI). The AAI is a requirement of the Code and designed to inform interested parties of details that go towards the revision of the Access Arrangement.

The purpose of this Revised Access Arrangement Information (RAAI) is to comply with the request of the Regulator to provide updated information consistent with their Draft Decision dated 28 February 2005.

The information contained in this document should be read in conjunction with the original AAI dated 31 March 2004, the Regulators Draft Decision dated 28 February 2005 and AGN's response to the Draft Decision. Various tables have been re-produced to reflect the outcomes of the Draft Decision and other information AGN considers relevant.

Substantiation of the data is not part of this RAAI. Substantiation can be found in the original AAI dated 31 March 2004 and AGN's response to the Draft Decision.

Based on the data contained in this report and the response to the Draft Decision the proposed "X" factors are as follows:

2005 - 0.0255

2006 – negative 0.0260

2007 – negative 0.0260

2008 – negative 0.0260

2009 - negative 0.0260



## 2 Total Revenue

## 2.1 Opening Capital Value

Table 2:1- Value of the Capital Base during the

## First Access Arrangement Period

(REAL \$ MILLION AT DECEMBER 2004)

	YEAR ENDING 31 DECEMBER				
	2000	2001	2002	2003	2004
High Pressure Mains	175.6	175.7	174.0	172.2	170.4
Medium Pressure Mains	210.3	209.3	209.3	208.9	208.0
Med / Low Pressure Mains	112.8	111.2	108.4	105.5	102.7
Low Pressure Mains	31.8	30.7	29.5	28.3	27.0
Secondary Gate Stations	2.3	2.6	2.0	1.9	1.8
Regulators	11.2	11.0	10.5	10.1	9.7
Meters & Service Pipes	70.9	75.6	89.3	105.4	116.1
Equip & Vehicles	15.2	11.2	6.7	2.0	(2.9)
Land & Buildings	7.5	7.7	7.6	7.5	7.4
Information Technology	3.5	4.2	4.6	5.0	6.0
FRC	-	-	1.8	3.1	12.2
Total	641.1	638.7	643.7	649.9	658.4

Refer table 4.1 on Page 37 of original AAI. This table has been updated to reflect amendment 11 of the Regulator's draft decision – specifically.



**Table 2:2 - Economic Lives of Assets** 

	Economic life	Average
Category of Asset	(Years)	Remaining life of Initial Capital Base
		(Years as at 31/12/04)
Mains:		
High pressure	120	100
Medium pressure	60	45
Medium low pressure	60	35
Low pressure	60	27
Secondary gate stations	40	19
Regulators	40	22
Meters:		
Residential	25	5
Commercial and industrial	25	5
Equipment and vehicles (including telemetry and monitoring systems)	10	0
FRC and Other IT Equipment	5	N/A
Buildings	40	18
Land	N/A	N/A

Refer table 4.4 on page 41 of original AAI. This table has been updated to reflect amendment 12 of the Regulator's draft decision – specifically.

(a) Remaining lives restated as at 31 December 2004 rather than 30 June 2003.



Table 2:3 Regulatory Forecast and actual capital costs for 2000 – 2004

(REAL \$ MILLION DECEMBER 2004)

		YEAR ENDING 31 DECEMBER				
	2000	2001	2002	2003	2004	
Regulatory forecast	29.6	23.2	19.6	19.1	16.1	
Actual Cost	28.8	18.9	27.0	28.9	31.9	

Note: 2004 Actual cost has been based on a forecast including FRC

Refer table 4.2 on Page 38 of original AAI. This table has been updated to reflect amendment 14 of the Regulator's draft decision – specifically



Table 2:4 – Actual New Facilities Investment during first Access Arrangement Period
(REAL \$ MILLION AT DECEMBER 2004)

	YEAR ENDING 31 DECEMBER				
	2000	2001	2002	2003	2004
Mains					
High Pressure Mains	1.46	1.97	0.0	0.0	0.0
Medium Pressure Mains	5.6	3.37	4.48	4.1	3.6
Med / Low Pressure Mains	2.26	1.38	0.1	0.0	0.1
Low Pressure Mains	0.0	0.0	0.0	0.0	0.0
Regulators	0.9	0.2	0.1	0.0	0.1
Secondary Gate Stations	0.1	0.1	0.0	0.0	0.0
Buildings	0.00	0.1	0.0	0.0	0.0
Meters & Service Pipes	14.5	11.18	20.38	23.1	18.1
Equip & Vehicles	1.2	0.36	0.1	0.2	0.1
Information Technology	3.6	0.7	0.4	0.4	1.0
FRC	0.0	0.0	1.8	1.2	9.1
Land	0.37	0.2	0.0	0.0	0.0
Total	28.9	19.0	27.0	29.0	32.1

Note: 2004 Actual cost has been based on a forecast including FRC

Refer table 4.2 on Page 38 of original AAI. This table has been updated to reflect amendment 14 of the Regulator's draft decision – specifically

- (a) Indexation of valuation from June 2003 to December 2004.
- (b) Provide the reader with additional detail on the level of capex in the 2000-2004 period.



Table 2:5 – Total Depreciation for first Access Arrangement Period

(REAL \$ MILLION AT 31 DECEMBER 2004)

	YEAR ENDING 31 DECEMBER				
	2000	2001	2002	2003	2004
Mains:					
High pressure	1.7	1.7	1.7	1.8	1.8
Medium pressure	4.2	4.3	4.5	4.4	4.4
Medium / low pressure	2.9	2.9	2.9	2.9	2.9
Low pressure	1.1	1.1	1.2	1.3	1.3
Regulators	0.4	0.4	0.4	0.4	0.5
Secondary gate stations	0.1	0.1	0.1	0.1	0.1
Building	0.9	0.1	0.1	0.1	0.1
Meters and Service pipes	5.9	6.3	6.6	7.0	7.3
Equipment and vehicles (including telemetry and monitoring systems)	3.85	4.3	4.5	4.8	5.0
Is (exc FRC)	0.0	0.0	0.0	0.0	0.0
FRC	0.0	0.0	0.0	0.0	0.0
Land	N/A	N/A	N/A	N/A	N/A
<b>Total Depreciation</b>	21.0	21.3	22.0	22.8	23.4

This information was not provided in the original AAI. This table has been updated to reflect amendment 16 of the Regulator's draft decision – specifically

- (a) Indexation of valuation from June 2003 to December 2004.
- (b) Provide the reader with additional information regarding depreciation in the 2000-2004 period.



# 2.2 Capital Base for Second Access Period

Table 2:6 - Value of the Capital Base for Each Year of the Second Access Arrangement Period

(REAL \$ MILLION AT DECEMBER 2004)

	YEAR ENDING 31 DECEMBER				
	2005	2006	2007	2008	2009
High Pressure Mains	169.2	168.4	167.6	166.7	168.3
Medium Pressure Mains	208.1	208.3	208.3	209.2	209.2
Med / Low Pressure Mains	102.4	101.5	100.5	99.8	99.1
Low Pressure Mains	26.9	26.0	25.1	24.2	23.3
Secondary Gate Stations	1.9	1.8	1.7	1.6	1.5
Regulators	9.2	8.9	8.6	8.3	8.0
Meters & Service Pipes	121.3	127.3	131.6	138.8	145.4
Equip & Vehicles	3.4	4.7	5.6	6.1	4.7
Land & Buildings	7.7	7.7	7.7	7.7	7.7
FRC	10.1	7.7	5.3	2.9	0.0
Total	660.0	662.1	661.8	665.1	665.5

Refer table 4.3 on Page 40 of original AAI. This table has been updated to reflect amendment 21 of the Regulator's draft decision – specifically



Table 2:7 - Forecast Capital Expenditure for the Second Access Arrangement Period
(REAL \$ MILLION AT DECEMBER 2004)

	YEAR ENDING 31 DECEMBER				
	2005	2006	2007	2008	2009
Mains:					
High pressure	0.6	0.8	0.8	0.7	3.3
Medium pressure	4.9	4.7	4.6	5.4	4.8
Medium low pressure	1.8	1.9	1.8	2.1	2.1
Low pressure	0.0	0.0	0.0	0.0	0.0
Secondary gate stations	0.0	0.0	0.0	0.0	0.0
Regulators	0.1	0.1	0.1	0.1	0.1
Meters and Service pipes	17.5	17.2	16.1	19.9	19.9
Equipment and vehicles (including telemetry and monitoring systems)	3.5	4.2	3.7	3.8	2.6
Buildings	0.1	0.1	0.1	0.1	0.1
FRC	0.0	0.0	0.0	0.0	0.0
Total	28.5	29.0	27.1	32.1	32.9

Refer table 4.6 on Page 43 of original AAI. This table has been updated to reflect amendment 11 of the Regulator's draft decision – specifically

- (a) Indexation of valuation from June 2003 to December 2004.
- (b) Reflects that AGN does not accept the Regulator's amendments in full relating to the reduction in Customer Initiated Capital.
- (c) Includes capital expenditure for the forecast Heating Value Management.



Table 2:8 - Value of Depreciation for the Second Access Arrangement Period
(REAL \$ MILLION AT DECEMBER 2004)

	YEAR ENDING 31 DECEMBER				
	2005	2006	2007	2008	2009
Mains:					
High pressure	1.7	1.7	1.7	1.7	1.7
Medium pressure	4.5	4.5	4.6	4.7	4.8
Medium low pressure	2.8	2.8	2.8	2.8	2.8
Low pressure	0.4	0.9	0.9	0.9	0.9
Secondary gate stations	0.0	0.1	0.1	0.1	0.1
Regulators	0.4	0.4	0.4	0.4	0.4
Meters and Service pipes	9.4	10.2	10.8	11.5	12.2
Equipment and vehicles (including telemetry and monitoring systems)	4.4	2.9	2.8	3.3	4.0
Buildings	0.1	0.1	0.1	0.1	0.1
FRC	2.5	2.5	2.5	2.5	2.5
Total	26.1	26.0	26.6	28.0	29.5

Refer table 4.5 on Page 42 of original AAI. This table has been updated to reflect amendment 20 of the Regulator's draft decision – specifically

- (a) Indexation of valuation from June 2003 to December 2004.
- (b) Reflects that AGN does not accept the Regulator's change in capital forecast therefore the adjustment to depreciation.



**Table 2:9 - Forecast Capital Expenditure for the** 

# Second Access Arrangement Period: By Type of Investment

(REAL \$ MILLION AT DECEMBER 2004)

		YEAR ENDING 31 DECEMBER				
Category of Expenditure	2005	2006	2007	2008	2009	
User Initiated	20.8	19.3	19.1	21.1	21.2	
Renewals	3.0	3.6	3.3	4.7	3.5	
Demand	1.2	2.2	1.3	2.9	6.0	
Other	3.5	3.9	3.4	3.4	2.2	
Total	28.5	29.0	27.1	32.1	32.9	

Refer table 4.7 on Page 44 of original AAI. This table has been updated to reflect amendment 18 of the Regulator's draft decision – specifically

- (a) Indexation of valuation from June 2003 to December 2004.
- (b) Reflects that AGN does not accept the Regulator's amendment to Customer Initiated Capital.



Table 2:10 - Return on Capital Base for the Second Access Arrangement Period

(REAL \$ MILLION AT DECEMBER 2004)

	YEAR ENDING 31 DECEMBER					
Category of Expenditure	2005	2006	2007	2008	2009	
Asset values:						
Opening	658.4	660.0	662.2	661.9	665.1	
Closing	660.0	662.2	661.9	665.1	667.6	
Average	659.2	661.1	662.1	663.5	666.3	
Return on average asset value	51.02	51.2	51.3	51.3	51.5	

Refer table 4.8on Page 47 of original AAI. This table has been updated to reflect amendment 24 of the Regulator's draft decision – specifically

- (a) Indexation of valuation from June 2003 to December 2004.
- (b) AGN's revised Return on Capital calculation.



## 2.3 Weighted Average Cost of Capital

Table 2:11 - Estimation of the Rate of Return for the

#### SECOND ACCESS ARRANGEMENT PERIOD

Return Parameter	ERA DRAFT DECISION	AGN Original Submission	Current Upper Bound
Risk free rate (nominal)	5.3%	5.9%	5.7%
Risk free rate (real)	2.7%	3.6%	3.3%
Market risk premium	6.0%	7.0%	7.0%
Equity beta	1.0%	1.0%	1.0%
Debt margin	1.2%	1.7%	1.4%
Corporate tax rate	30%	30%	30%
Franking credit value	50%	40%	30%
Debt to total assets ratio	60%	60%	60%
Pre-tax real WACC	6.5%	8.5%	8.2%

Refer table 4.9 on Page 50 of original AAI. This table has been updated to reflect amendment 22 & 23 of the Regulator's draft decision .

AGN considers the ERA Draft Decision has the lower bound for any decision. AGN has also proposed an upper band based on current available data (refer AGN's response to Draft Decision for further details).

AGN therefore submits an appropriate WACC based on the  $75^{th}$  percentile of the upper and lower bounds to be 7.75% pre tax real.



## 2.4 Forecast Non Capital Costs

Table 2:12- Non-Capital Costs Incurred in Providing the Reference Services for the Second Access Arrangement Period

(REAL \$ MILLION AT DECEMBER 2004)

	YEAR ENDING 31 DECEMBER				
	2005	2006	2007	2008	2009
Network	23.8	23.0	22.4	21.4	22.4
UAFG	3.1	3.1	3.1	3.1	3.1
Corporate	6.5	6.5	6.5	6.5	6.5
Marketing	1.4	1.4	1.4	1.4	1.4
Information Technology	5.1	5.1	5.1	5.1	5.1
Full Retail Contestability	1.3	1.3	1.3	1.3	1.3
Regulatory Costs	0.7	0.7	0.7	0.7	0.7
Total	41.9	41.3	40.5	40.5	40.5

Refer table 4.11 on Page 56 of original AAI. This table has been updated to reflect amendment 11 of the Regulator's draft decision – specifically

- (a) Indexation of valuation from June 2003 to December 2004.
- (b) Reflects that AGN does not accept the forecast of efficiencies proposed by the Regulator.
- (c) Reflects that AGN does not accept the Regulator's assessment that the land clearing permits will reduce by the amount proposed until such time confirmation is received from the EPA.
- (d) Reflects that AGN does not accept the Regulator's assessment of UAFG.



## 2.5 Calculation of Total Revenue

Table 2:13: Composition of Total Revenue for the

## Second access arrangement period

(REAL \$ MILLION AT DECEMBER 2004)

	YEAR ENDING 31 DECEMBER				
	2005	2006	2007	2008	2009
Non-Capital Costs	41.9	41.3	40.5	40.5	40.5
Return on Capital	51.0	51.2	51.3	51.3	51.5
Depreciation	26.1	26.1	26.6	28.0	29.5
Efficiency carry-over	-	-	-	-	-
Return on Working Capital	0.9	0.9	0.9	0.9	0.9
Total Revenue	120.0	119.4	119.4	120.7	122.5

Refer table 4.1 on Page 37 of original AAI. This table has been updated to reflect amendment 11 of the Regulator's draft decision – specifically

# 3 System Capability & Volume Assumptions

**Table 3:1: Forecast Delivery Points 2005 – 2009 (per ERA)** 

Service	2005	2006	2007	2008	2009
Reference Service A1	35	35	35	35	35
Reference Service A2	83	83	83	83	83
Reference Service B1	923	944	956	969	994
Reference Service B2	5,304	5,580	5,870	6,174	6,487
Reference Service B3	518,029	533,353	548,663	566,959	585,122
<b>Total Delivery Points</b>	524,374	539,995	555,607	574,220	592,721

The delivery points included in table 3.1 are per the Authority's Draft Decision and for B3 delivery points are presented as at year end.

**Table 3:2: Forecast Delivery Points 2005 – 2009 (per AGN)** 

Service	2005	2006	2007	2008	2009
Reference Service A1	35	35	35	35	35
Reference Service A2	83	83	83	83	83
Reference Service B1	923	994	956	969	994
Reference Service B2	5,304	5,580	5,870	6,174	6,487
Reference Service B3	511,197	523,191	538,508	555,311	573,541
<b>Total Delivery Points</b>	517,542	529,833	545,452	562,572	581,140

For the purpose of modelling total revenue AGN has used the forecast delivery points in table 3.2. This table represents that not all delivery points incur a full year fixed charge (ie assume 6 months) and abolishment's occur throughout the year.