Economic Regulation Authority

Western Australia

Amended Draft Decision on the Proposed Access Arrangement for the Goldfields Gas Pipeline

Submitted by

GOLDFIELDS GAS TRANSMISSION PTY LTD

Addendum:

Calculation of asset values under sections 8.10(a) and 8.10(f) of the Code

Calculation of Reference Tariffs

ECONOMIC REGULATION AUTHORITY

26 October 2004

Addendum to the Amended Draft Decision

1. On 15 December 1999, Goldfields Transmission Pty Ltd ("**GGT**") submitted a proposed Access Arrangement for the Goldfields Gas Pipeline ("**GGP**") to the Western Australian Independent Gas Pipelines Access Regulator ("**Regulator**") for approval under the *National Third Party Access Code for Natural Gas Pipeline Systems* ("**Code**").

2. On 29 July 2004, the Economic Regulation Authority ("**Authority**") issued its Amended Draft Decision on the proposed Access Arrangement.

3. As part of its consideration of the proposed Access Arrangement, as set out in the Amended Draft Decision, the Authority determined:

   - values of the assets of the GGP, at different valuation dates, in accordance with the valuation methodology set out in section 8.10(a) of the Code and described by the Authority in the Amended Draft Decision as a Depreciated Actual Cost ("**DAC**");[1]

   - values of the assets of the GGP, at different valuation dates, that are implied by the basis on which tariffs have been set in the past, the economic depreciation of the GGP, and the historical returns to GGT, as required to be considered under section 8.10(f) of the Code;[2] and

   - values of Reference Tariffs for potential Access Arrangement Periods of 6 years and 10 years from 1 January 2000, taking into account amendments to the proposed Access Arrangement in respect of the Initial Capital Base, the Rate of Return, the Depreciation Schedule and Non Capital Costs, where these amendments were indicated in the Amended Draft Decision to be required to be made before the Access Arrangement would be approved.[3]

4. Although the Authority set out the methodology and critical parameters for the calculation of asset values and References Tariffs in the Amended Draft Decision, the Authority now publishes printouts of the Microsoft Excel spreadsheets by which the calculations were made.

5. The copies of the spreadsheets are provided as attachments to this Addendum, as follows.

   - Attachment 1: Calculation of the DAC value of $434 million at 31 December 1999, as indicated at paragraph 99 of the Amended Draft Decision;

   - Attachment 2: Calculation of the asset value of $495 million at 31 December 1999 that is implied by the basis on which tariffs have been set in the past, the economic depreciation of the GGP, and the historical returns to GGT, as indicated at paragraph 150 of the Amended Draft Decision;

[1] Amended Draft Decision, paragraphs 83 to 103.

[2] Amended Draft Decision, paragraphs 137 to 150.

[3] Amended Draft Decision, paragraphs 383 to 408.

- Attachment 3: Calculation of the Reference Tariff for the 6 year Access Arrangement Period from 1 January 2000, as indicated at paragraph 407 of the Amended Draft Decision;
- Attachment 4: Calculation of the Reference Tariff for the 10 year Access Arrangement Period from 1 January 2000, as indicated at paragraph 407 of the Amended Draft Decision.

ATTACHMENT 1: Calculation of Depreciated Actual Cost value of GGT assets of $434 million at 31 December 1999

1. Quarterly Expenditure and Revenue

IDX	Quarterly Expenditure & Revenue, Nominal k$																									
	Year Ending 30 June		1994	1994	1994	1994	1995	1995	1995	1995	1996	1996	1996	1996	1997	1997	1997	1997	1998	1998	1998	1998	1999	1999	1999	1999
	Project Year		0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6
	Quarter		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	Project Quarter		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
IDX	Quarter Ending Date		31/3/1994	30/6/1994	30/9/1994	31/12/1994	31/3/1995	30/6/1995	30/9/1995	31/12/1995	31/3/1996	30/6/1996	30/9/1996	31/12/1996	31/3/1997	30/6/1997	30/9/1997	31/12/1997	31/3/1998	30/6/1998	30/9/1998	31/12/1998	31/3/1999	30/6/1999	30/9/1999	31/12/1999
1																										
2																										
3	**Expenditure**																									
4	Capital Expenditure			$ 2,361	$ 1,605	$ 2,938	$ 3,114	$ 27,414	$ 66,192	$ 76,018	$ 65,837	$ 94,503	$ 58,295	$ 22,749	$ 10,113	$ 18,430	$ 3,423	$ 2,918	$ 936	$ 524	$ 258	$ 805	$ 200	$ 75	$ 81	$ 194
5	O&M			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,428	$ 2,428	$ 2,428	$ 2,113	$ 2,113	$ 2,113	$ 2,113	$ 2,230	$ 2,230	$ 2,230	$ 2,230	$ 2,309	$ 2,309
6	Total Expenditure			$ 2,361	$ 1,605	$ 2,938	$ 3,114	$ 27,414	$ 66,192	$ 76,018	$ 65,837	$ 94,503	$ 58,295	$ 25,178	$ 12,541	$ 20,859	$ 5,536	$ 5,031	$ 3,049	$ 2,637	$ 2,488	$ 3,035	$ 2,430	$ 2,305	$ 2,391	$ 2,503
7	**Working Capital**																									
8	Working Capital			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,023	$ 1,278	$ 1,121	$ 1,418	$ 1,288	$ 1,279	$ 1,146	$ 992	$ 1,263	$ 1,083	$ 1,225	$ 1,070	$ 1,317
9	**Notional Revenue**																									
10	Discounted Notional Revenue			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,511	$ 13,106	$ 13,277	$ 18,883	$ 19,101	$ 17,813	$ 16,110	$ 14,536	$ 15,366	$ 14,905	$ 15,306	$ 15,218	$ 15,218
11	Joint Venture Discount	7.50%		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 852	$ 1,063	$ 1,077	$ 1,531	$ 1,549	$ 1,444	$ 1,306	$ 1,179	$ 1,246	$ 1,209	$ 1,241	$ 1,234	$ 1,234
12	Total Notional Revenue			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,363	$ 14,168	$ 14,354	$ 20,414	$ 20,650	$ 19,258	$ 17,416	$ 15,715	$ 16,612	$ 16,114	$ 16,547	$ 16,452	$ 16,452
13	**Third Party Discounted Revenue**																									
14	Third Party Revenue			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,331	$ 1,331	$ 1,331	$ 1,331	$ 3,324	$ 3,324	$ 3,324	$ 3,324	$ 4,820	$ 4,820
15	**Tariff Discounts**																									
16	A1 Tariff-FY																			$3.89	$3.92	$3.92	$3.92	$3.92	$3.98	$3.98
17	A2 Tariff-FY																			$3.31	$3.34	$3.34	$3.34	$3.34	$3.38	$3.38
18	A4 Tariff-FY																									
19	Ratio			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18	1.18	1.18	1.18	1.18	1.18	1.18
20	Credit for Voluntary Discount			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,293	$ 3,344	$ 3,502	$ 3,414	$ 3,491	$ 3,737	$ 3,737
21	**Notional & Actual Revenue**																									
22	Sub 2002 Revenue Reduced by Discounts			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,511	$ 13,106	$ 13,277	$ 20,213	$ 20,432	$ 19,144	$ 17,441	$ 17,860	$ 18,690	$ 18,229	$ 18,630	$ 20,038	$ 20,038
23	**Pre-Operation Revenue & Expenditure**																									
24	3rd Qtr 1996 Revenue (Offset against IDC)												$ 1,082													
25	3rd Qtr 1996 Working Capital	Number deleted for reasons of confidentiality																								
26	Return on 3rd Qtr 1996 Working Capital (Added to IDC)												$ 20													
27	Addition to Interest During Construction												-$ 1,063													

Quarterly Expenditure & Revenue, Real k$ as at 31 Dec 1999																								
Year Ending 30 June	1994	1994	1994	1994	1995	1995	1995	1995	1996	1996	1996	1996	1997	1997	1997	1997	1998	1998	1998	1998	1999	1999	1999	1999
Project Year	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Project Quarter	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Quarter Ending Date	31/3/1994	30/6/1994	30/9/1994	31/12/1994	31/3/1995	30/6/1995	30/9/1995	31/12/1995	31/3/1996	30/6/1996	30/9/1996	31/12/1996	31/3/1997	30/6/1997	30/9/1997	31/12/1997	31/3/1998	30/6/1998	30/9/1998	31/12/1998	31/3/1999	30/6/1999	30/9/1999	31/12/1999
CPI	110.4	111.2	111.9	112.8	114.7	116.2	117.6	118.5	119.0	119.8	120.1	120.3	120.5	120.2	119.7	120.0	120.3	121.0	121.3	121.9	121.8	122.3	123.4	124.1
Nominal to Real Conversion Factor		1.116	1.109	1.100	1.082	1.068	1.055	1.047	1.043	1.036	1.033	1.032	1.030	1.032	1.037	1.034	1.032	1.026	1.023	1.018	1.019	1.015	1.006	1.000
Expenditure																								
Capital Expenditure		$ 2,635	$ 1,780	$ 3,232	$ 3,369	$ 29,277	$ 69,850	$ 79,611	$ 68,658	$ 97,895	$ 60,237	$ 23,468	$ 10,415	$ 19,028	$ 3,549	$ 3,017	$ 966	$ 537	$ 264	$ 820	$ 204	$ 76	$ 82	$ 194
O&M		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,505	$ 2,501	$ 2,507	$ 2,191	$ 2,185	$ 2,180	$ 2,167	$ 2,282	$ 2,270	$ 2,272	$ 2,263	$ 2,322	$ 2,309
Total Expenditure		$ 2,635	$ 1,780	$ 3,232	$ 3,369	$ 29,277	$ 69,850	$ 79,611	$ 68,658	$ 97,895	$ 60,237	$ 25,973	$ 12,916	$ 21,535	$ 5,740	$ 5,203	$ 3,146	$ 2,704	$ 2,545	$ 3,090	$ 2,476	$ 2,339	$ 2,404	$ 2,503
Working Capital																								
Working Capital		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,055	$ 1,316	$ 1,157	$ 1,470	$ 1,332	$ 1,319	$ 1,175	$ 1,015	$ 1,286	$ 1,103	$ 1,243	$ 1,076	$ 1,317
Notional Revenue																								
Notional Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,843	$ 13,497	$ 13,708	$ 19,577	$ 19,754	$ 18,376	$ 16,523	$ 14,872	$ 15,643	$ 15,186	$ 15,531	$ 15,304	$ 15,218
Joint Venture Discount		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 879	$ 1,094	$ 1,111	$ 1,587	$ 1,602	$ 1,490	$ 1,340	$ 1,206	$ 1,268	$ 1,231	$ 1,259	$ 1,241	$ 1,234
Total Notional Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,722	$ 14,591	$ 14,819	$ 21,164	$ 21,356	$ 19,866	$ 17,863	$ 16,077	$ 16,912	$ 16,418	$ 16,791	$ 16,545	$ 16,452
Third Party Revenue																								
Third Party Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,379	$ 1,376	$ 1,373	$ 1,365	$ 3,400	$ 3,384	$ 3,387	$ 3,373	$ 4,848	$ 4,820
Discounts																								
A1 Tariff-FY																								
A2 Tariff-FY																								
A4 Tariff-FY																								
Ratio																								
Credit for Voluntary Discount		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,377	$ 3,421	$ 3,565	$ 3,479	$ 3,542	$ 3,758	$ 3,737
Notional & Actual Revenue																								
Section 41 Revenue Reduced by Discounts		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,843	$ 13,497	$ 13,708	$ 20,956	$ 21,130	$ 19,749	$ 17,888	$ 18,272	$ 19,027	$ 18,573	$ 18,904	$ 20,152	$ 20,038
Pre-Operation Revenue & Expenditure																								
3rd Qtr 1996 Revenue (Offset against IDC)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,118	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3rd Qtr 1996 Working Capital		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Return on 3rd Qtr 1996 Working Capital (Added to IDC)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Addition to Interest During Construction		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-$1,098.1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

2. Rate of Return Calculation

IDX								
1			Tax					
2			from	7/1/1993	7/1/1994	7/1/2000		
3				33%	36%	34%		
4								
5	**Year (30/6)**		**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
6	**Project Year**		**0**	**1**	**2**	**3**	**4**	**5**
7	Annual Avg Nominal Risk Free Rate		8.91	9.21	8.22	6.95	5.49	6.02
8	Annual Avg Real Risk Free Rate		4.73	5.15	4.91	4.52	3.61	3.52
9	Implied Inflation		4.00%	3.87%	3.15%	2.33%	1.81%	2.41%
10	TAX		34.50%	36.00%	36.00%	36.00%	36.00%	36.00%
11								
12	**Determination of the Weighted Average Cost of Capital (WACC)**	**ADD**						
13		**6 years**	**Annual WACC Calculations**					
14		**30-Jun-04**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
15	Inflation Rate (I)	2.61%	4.00%	3.87%	3.15%	2.33%	1.81%	2.41%
16	**Debt Proportion (D)**	**60%**	**60%**	**60%**	**60%**	**60%**	**60%**	**60%**
17	Equity Proportion (E)	40%	40%	40%	40%	40%	40%	40%
18	**Nominal Risk Free Rate (Rfn)**	**5.89%**	**8.91%**	**9.21%**	**8.22%**	**6.95%**	**5.49%**	**6.02%**
19	**Real Risk Free Rate (Rfr)**	**3.20%**	**4.73%**	**5.15%**	**4.91%**	**4.52%**	**3.61%**	**3.52%**
20	**Cost of Debt; Risk Margin (Rm)**	**1.20%**	**1.20%**	**1.20%**	**1.20%**	**1.20%**	**1.20%**	**1.20%**
21	**Australian Market Risk Premium (Rp)**	**6.00%**	**6.00%**	**6.00%**	**6.00%**	**6.00%**	**6.00%**	**6.00%**
22	Equity Beta (Be)	1.33	1.33	1.33	1.33	1.33	1.33	1.33
23	**Asset Beta (Ba)**	**0.65**	**0.65**	**0.65**	**0.65**	**0.65**	**0.65**	**0.65**
24	Debt Beta (Bd)	0.20	0.20	0.20	0.20	0.20	0.20	0.20
25	**Corporate Tax Rate (T)**	**31.1667%**	**34.5%**	**36.0%**	**36.0%**	**36.0%**	**36.0%**	**36.0%**
26	**Franking Credit (g)**	**50.0%**	**50.0%**	**50.0%**	**50.0%**	**50.0%**	**50.0%**	**50.0%**
27	**Cost of Debt & Equity**							
28	Nominal Pre Tax Cost of Debt (Nd)	7.09%	10.11%	10.41%	9.42%	8.15%	6.69%	7.22%
29	Nominal Pre Tax Cost of Equity (EPn)	16.39%	20.38%	20.93%	19.71%	18.18%	16.40%	17.03%
30	**WACC; Officer (Market Practise or Forward Transformation)**							
31	Nominal Pre Tax WACC (WPn)	10.81%	14.22%	14.62%	13.54%	12.16%	10.57%	11.14%
32	**Real Pre Tax WACC (WPr)**	**8.00%**	**9.83%**	**10.35%**	**10.07%**	**9.61%**	**8.60%**	**8.53%**

3. Capital Recovery Calculation

	Quarterly Asset Calcs, Real k$ as at 31 Dec 1999											
	Year Ending 30 June	1994	1994	1994	1994	1995	1995	1995	1995	1996	1996	1996
	Project Year	0	0	1	1	1	1	2	2	2	2	3
	Quarter	1	2	3	4	1	2	3	4	1	2	3
	Project Quarter	0	1	2	3	4	5	6	7	8	9	10
IDX	Quarter Ending Date	31/3/1994	30/6/1994	30/9/1994	31/12/1994	31/3/1995	30/6/1995	30/9/1995	31/12/1995	31/3/1996	30/6/1996	30/9/1996
1	**Quarterly WACC**											
2	Pre-tax Real WACC		2.37%	2.37%	2.37%	2.49%	2.49%	2.49%	2.49%	2.43%	2.43%	2.43%
3	**Correction to Interest during Construction**											
4	Correction to Interest During Construction											-$ 1,098
5	**Plant Value**											
6	Opening Plant Value		$ -	$ 2,635	$ 4,478	$ 7,816	$ 11,380	$ 40,941	$ 111,812	$ 194,210	$ 267,581	$ 371,970
7	CAPEX		$ 2,635	$ 1,780	$ 3,232	$ 3,369	$ 29,277	$ 69,850	$ 79,611	$ 68,658	$ 97,895	$ 60,237
8	Interest During Construction		$ -	$ 62	$ 106	$ 195	$ 284	$ 1,021	$ 2,788	$ 4,713	$ 6,494	$ 7,929
9	Deferred Revenue Recovery		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	Closing Plant Value	$ -	$ 2,635	$ 4,478	$ 7,816	$ 11,380	$ 40,941	$ 111,812	$ 194,210	$ 267,581	$ 371,970	$ 440,136
11	**Accumulated Calcs**											
12	Accumulated CAPEX	$ -	$ 2,635	$ 4,415	$ 7,647	$ 11,016	$ 40,293	$ 110,144	$ 189,755	$ 258,413	$ 356,308	$ 416,544
13	Accumulated Interest During Construction	$ -	$ -	$ 62	$ 169	$ 364	$ 647	$ 1,668	$ 4,455	$ 9,169	$ 15,663	$ 23,592
14	Accumulated Deferred Revenue Recovery	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15	Closing Plant Value	$ -	$ 2,635	$ 4,478	$ 7,816	$ 11,380	$ 40,941	$ 111,812	$ 194,210	$ 267,581	$ 371,970	$ 440,136
16	**Closing Asset Value**											
17	Closing Plant Value		$ 2,635	$ 4,478	$ 7,816	$ 11,380	$ 40,941	$ 111,812	$ 194,210	$ 267,581	$ 371,970	$ 440,136
18	Working Capital		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
19	Closing Value		$ 2,635	$ 4,478	$ 7,816	$ 11,380	$ 40,941	$ 111,812	$ 194,210	$ 267,581	$ 371,970	$ 440,136
20	**Required Revenue = Cost of Service**											
21	Return on Asset		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
22	OPEX		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
23	Required Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
24	**Deemed Revenue**											
25	Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
26	**Capital Recovery**											
27	Capital Recovery (-), Under-Recovery (+)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

	Quarterly Asset Calcs, Real k$ as at 31 Dec 1999													
	Year Ending 30 June	1996	1997	1997	1997	1997	1998	1998	1998	1998	1999	1999	1999	1999
	Project Year	3	3	3	4	4	4	4	5	5	5	5	6	6
	Quarter	4	1	2	3	4	1	2	3	4	1	2	3	4
	Project Quarter	11	12	13	14	15	16	17	18	19	20	21	22	23
IDX	Quarter Ending Date	31/12/1996	31/3/1997	30/6/1997	30/9/1997	31/12/1997	31/3/1998	30/6/1998	30/9/1998	31/12/1998	31/3/1999	30/6/1999	30/9/1999	31/12/19
1	**Quarterly WACC**													
2	Pre-tax Real WACC	2.43%	2.32%	2.32%	2.32%	2.32%	2.08%	2.08%	2.08%	2.08%	2.07%	2.07%	2.07%	2.
3	**Correction to Interest during Construction**													
4	Correction to Interest During Construction													
5	**Plant Value**													
6	Opening Plant Value	$ 440,136	$ 465,974	$ 476,239	$ 495,147	$ 491,457	$ 486,968	$ 480,546	$ 475,406	$ 469,612	$ 463,493	$ 456,997	$ 449,901	$ 441,
7	CAPEX	$ 23,468	$ 10,415	$ 19,028	$ 3,549	$ 3,017	$ 966	$ 537	$ 264	$ 820	$ 204	$ 76	$ 82	$
8	Interest During Construction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$
9	Deferred Revenue Recovery	$ 2,369	-$ 150	-$ 120	-$ 7,238	-$ 7,506	-$ 7,388	-$ 5,677	-$ 6,057	-$ 6,939	-$ 6,700	-$ 7,172	-$ 8,510	-$ 8,
10	Closing Plant Value	$ 465,974	$ 476,239	$ 495,147	$ 491,457	$ 486,968	$ 480,546	$ 475,406	$ 469,612	$ 463,493	$ 456,997	$ 449,901	$ 441,473	$ 433,
11	**Accumulated Calcs**													
12	Accumulated CAPEX	$ 440,013	$ 450,428	$ 469,456	$ 473,005	$ 476,022	$ 476,988	$ 477,525	$ 477,789	$ 478,608	$ 478,812	$ 478,888	$ 478,970	$ 479,
13	Accumulated Interest During Construction	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,592	$ 23,
14	Accumulated Deferred Revenue Recovery	$ 2,369	$ 2,219	$ 2,099	-$ 5,139	-$ 12,646	-$ 20,034	-$ 25,710	-$ 31,768	-$ 38,707	-$ 45,407	-$ 52,579	-$ 61,089	-$ 69,
15	Closing Plant Value	$ 465,974	$ 476,239	$ 495,147	$ 491,457	$ 486,968	$ 480,546	$ 475,406	$ 469,612	$ 463,493	$ 456,997	$ 449,901	$ 441,473	**$ 433,**
16	**Closing Asset Value**													
17	Closing Plant Value	$ 465,974	$ 476,239	$ 495,147	$ 491,457	$ 486,968	$ 480,546	$ 475,406	$ 469,612	$ 463,493	$ 456,997	$ 449,901	$ 441,473	$ 433,
18	Working Capital	$ 1,055	$ 1,316	$ 1,157	$ 1,470	$ 1,332	$ 1,319	$ 1,175	$ 1,015	$ 1,286	$ 1,103	$ 1,243	$ 1,076	$ 1,
19	Closing Value	$ 467,029	$ 477,555	$ 496,304	$ 492,927	$ 488,300	$ 481,865	$ 476,581	$ 470,627	$ 464,779	$ 458,100	$ 451,144	$ 442,549	**$ 434,**
20	**Required Revenue = Cost of Service**													
21	Return on Asset	$ 10,707	$ 10,846	$ 11,081	$ 11,527	$ 11,438	$ 10,180	$ 10,044	$ 9,933	$ 9,818	$ 9,601	$ 9,469	$ 9,319	$ 9,
22	OPEX	$ 2,505	$ 2,501	$ 2,507	$ 2,191	$ 2,185	$ 2,180	$ 2,167	$ 2,282	$ 2,270	$ 2,272	$ 2,263	$ 2,322	$ 2,
23	Required Revenue	$ 13,212	$ 13,347	$ 13,588	$ 13,718	$ 13,624	$ 12,360	$ 12,211	$ 12,215	$ 12,088	$ 11,873	$ 11,732	$ 11,642	$ 11,
24	**Deemed Revenue**													
25	Revenue	$ 10,843	$ 13,497	$ 13,708	$ 20,956	$ 21,130	$ 19,749	$ 17,888	$ 18,272	$ 19,027	$ 18,573	$ 18,904	$ 20,152	$ 20,
26	**Capital Recovery**													
27	Capital Recovery (-), Under-Recovery (+)	$ 2,369	-$ 150	-$ 120	-$ 7,238	-$ 7,506	-$ 7,388	-$ 5,677	-$ 6,057	-$ 6,939	-$ 6,700	-$ 7,172	-$ 8,510	-$ 8,

ATTACHMENT 2: Calculation of the asset value of $495 million at 31 December 1999, implied by the basis on which tariffs have been set in the past, the economic depreciation of the GGP, and the historical returns to GGT

1. Quarterly Expenditure and Revenue

Quarterly Expenditure & Revenue, Nominal k$																										
	Year Ending 30 June		**1994**	**1994**	**1994**	**1994**	**1995**	**1995**	**1995**	**1995**	**1996**	**1996**	**1996**	**1996**	**1997**	**1997**	**1997**	**1997**	**1998**	**1998**	**1998**	**1998**	**1999**	**1999**	**1999**	**1999**
	Project Year		**0**	**0**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**3**	**3**	**3**	**3**	**4**	**4**	**4**	**4**	**5**	**5**	**5**	**5**	**6**	**6**
	Quarter		**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
	Project Quarter		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
IDX	**Quarter Ending Date**		**31/3/1994**	**30/6/1994**	**30/9/1994**	**31/12/1994**	**31/3/1995**	**30/6/1995**	**30/9/1995**	**31/12/1995**	**31/3/1996**	**30/6/1996**	**30/9/1996**	**31/12/1996**	**31/3/1997**	**30/6/1997**	**30/9/1997**	**31/12/1997**	**31/3/1998**	**30/6/1998**	**30/9/1998**	**31/12/1998**	**31/3/1999**	**30/6/1999**	**30/9/1999**	**31/12/1999**
1																										
2																										
3	**Expenditure**																									
4	Capital Expenditure			**$ 2,361**	**$ 1,605**	**$ 2,938**	**$ 3,114**	**$ 27,414**	**$ 66,192**	**$ 76,018**	**$ 65,837**	**$ 94,503**	**$ 58,295**	**$ 22,749**	**$ 10,113**	**$ 18,430**	**$ 3,423**	**$ 2,918**	**$ 936**	**$ 524**	**$ 258**	**$ 805**	**$ 200**	**$ 75**	**$ 81**	**$ 194**
5	O&M			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,428**	**$ 2,428**	**$ 2,428**	**$ 2,113**	**$ 2,113**	**$ 2,113**	**$ 2,113**	**$ 2,230**	**$ 2,230**	**$ 2,230**	**$ 2,230**	**$ 2,309**	**$ 2,309**
6	Total Expenditure			$ 2,361	$ 1,605	$ 2,938	$ 3,114	$ 27,414	$ 66,192	$ 76,018	$ 65,837	$ 94,503	$ 58,295	$ 25,178	$ 12,541	$ 20,859	$ 5,536	$ 5,031	$ 3,049	$ 2,637	$ 2,488	$ 3,035	$ 2,430	$ 2,305	$ 2,391	$ 2,503
7	**Working Capital**																									
8	Working Capital			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,023	$ 1,278	$ 1,121	$ 1,418	$ 1,288	$ 1,279	$ 1,146	$ 992	$ 1,263	$ 1,083	$ 1,225	$ 1,070	$ 1,317
9	**Notional Revenue**																									
10	Discounted Notional Revenue			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,511	$ 13,106	$ 13,277	$ 18,883	$ 19,101	$ 17,813	$ 16,110	$ 14,536	$ 15,366	$ 14,905	$ 15,306	$ 15,218	$ 15,218
11	Joint Venture Discount	**7.50%**		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 852	$ 1,063	$ 1,077	$ 1,531	$ 1,549	$ 1,444	$ 1,306	$ 1,179	$ 1,246	$ 1,209	$ 1,241	$ 1,234	$ 1,234
12	Total Notional Revenue			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 11,363**	**$ 14,168**	**$ 14,354**	**$ 20,414**	**$ 20,650**	**$ 19,258**	**$ 17,416**	**$ 15,715**	**$ 16,612**	**$ 16,114**	**$ 16,547**	**$ 16,452**	**$ 16,452**
13	**Third Party Discounted Revenue**																									
14	Third Party Revenue			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,331**	**$ 1,331**	**$ 1,331**	**$ 1,331**	**$ 3,324**	**$ 3,324**	**$ 3,324**	**$ 3,324**	**$ 4,820**	**$ 4,820**
15	**Tariff Discounts**																									
16	A1 Tariff-FY																	**$3.89**	**$3.92**	**$3.92**	**$3.92**	**$3.92**	**$3.98**	**$3.98**		
17	A2 Tariff-FY																	**$3.31**	**$3.34**	**$3.34**	**$3.34**	**$3.34**	**$3.38**	**$3.38**		
18	A4 Tariff-FY																									
19	Ratio			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18	1.18	1.18	1.18	1.18	1.18	1.18
20	Credit for Voluntary Discount			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,293	$ 3,344	$ 3,502	$ 3,414	$ 3,491	$ 3,737	$ 3,737
21	**Notional & Actual Revenue**																									
22	Sub 2002 Revenue Reduced by Discounts			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,511	$ 13,106	$ 13,277	$ 20,213	$ 20,432	$ 19,144	$ 17,441	$ 17,860	$ 18,690	$ 18,229	$ 18,630	$ 20,038	$ 20,038
23	**Pre-Operation Revenue & Expenditure**																									
24	3rd Qtr 1996 Revenue (Offset against IDC)											**$ 1,082**														
25	3rd Qtr 1996 Working Capital	Number deleted for reasons of confidentiality																								
26	Return on 3rd Qtr 1996 Working Capital (Added to IDC)											$ 25														
27	Addition to Interest During Construction											-$ 1,057														

Quarterly Expenditure & Revenue, Real k$ as at 31 Dec 1999																									
Year Ending 30 June		**1994**	**1994**	**1994**	**1994**	**1995**	**1995**	**1995**	**1995**	**1996**	**1996**	**1996**	**1996**	**1997**	**1997**	**1997**	**1997**	**1998**	**1998**	**1998**	**1998**	**1999**	**1999**	**1999**	**1999**
Project Year		**0**	**0**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**3**	**3**	**3**	**3**	**4**	**4**	**4**	**4**	**5**	**5**	**5**	**5**	**6**	**6**
Quarter		**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
Project Quarter		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
Quarter Ending Date		**31/3/1994**	**30/6/1994**	**30/9/1994**	**31/12/1994**	**31/3/1995**	**30/6/1995**	**30/9/1995**	**31/12/1995**	**31/3/1996**	**30/6/1996**	**30/9/1996**	**31/12/1996**	**31/3/1997**	**30/6/1997**	**30/9/1997**	**31/12/1997**	**31/3/1998**	**30/6/1998**	**30/9/1998**	**31/12/1998**	**31/3/1999**	**30/6/1999**	**30/9/1999**	**31/12/1999**
CPI		**110.4**	**111.2**	**111.9**	**112.8**	**114.7**	**116.2**	**117.6**	**118.5**	**119.0**	**119.8**	**120.1**	**120.3**	**120.5**	**120.2**	**119.7**	**120.0**	**120.3**	**121.0**	**121.3**	**121.9**	**121.8**	**122.3**	**123.4**	**124.1**
Nominal to Real Conversion Factor			1.116	1.109	1.100	1.082	1.068	1.055	1.047	1.043	1.036	1.033	1.032	1.030	1.032	1.037	1.034	1.032	1.026	1.023	1.018	1.019	1.015	1.006	1.000
Expenditure																									
Capital Expenditure			$ 2,635	$ 1,780	$ 3,232	$ 3,369	$ 29,277	$ 69,850	$ 79,611	$ 68,658	$ 97,895	$ 60,237	$ 23,468	$ 10,415	$ 19,028	$ 3,549	$ 3,017	$ 966	$ 537	$ 264	$ 820	$ 204	$ 76	$ 82	$ 194
O&M			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,505	$ 2,501	$ 2,507	$ 2,191	$ 2,185	$ 2,180	$ 2,167	$ 2,282	$ 2,270	$ 2,272	$ 2,263	$ 2,322	$ 2,309
Total Expenditure			$ 2,635	$ 1,780	$ 3,232	$ 3,369	$ 29,277	$ 69,850	$ 79,611	$ 68,658	$ 97,895	$ 60,237	$ 25,973	$ 12,916	$ 21,535	$ 5,740	$ 5,203	$ 3,146	$ 2,704	$ 2,545	$ 3,090	$ 2,476	$ 2,339	$ 2,404	$ 2,503
Working Capital																									
Working Capital			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,055	$ 1,316	$ 1,157	$ 1,470	$ 1,332	$ 1,319	$ 1,175	$ 1,015	$ 1,286	$ 1,103	$ 1,243	$ 1,076	$ 1,317
Notional Revenue																									
Notional Revenue			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,843	$ 13,497	$ 13,708	$ 19,577	$ 19,754	$ 18,376	$ 16,523	$ 14,872	$ 15,643	$ 15,186	$ 15,531	$ 15,304	$ 15,218
Joint Venture Discount			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 879	$ 1,094	$ 1,111	$ 1,587	$ 1,602	$ 1,490	$ 1,340	$ 1,206	$ 1,268	$ 1,231	$ 1,259	$ 1,241	$ 1,234
Total Notional Revenue			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,722	$ 14,591	$ 14,819	$ 21,164	$ 21,356	$ 19,866	$ 17,863	$ 16,077	$ 16,912	$ 16,418	$ 16,791	$ 16,545	$ 16,452
Third Party Revenue																									
Third Party Revenue			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,379	$ 1,376	$ 1,373	$ 1,365	$ 3,400	$ 3,384	$ 3,387	$ 3,373	$ 4,848	$ 4,820
Discounts																									
A1 Tariff-FY																									
A2 Tariff-FY																									
A4 Tariff-FY																									
Ratio																									
Credit for Voluntary Discount			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,377	$ 3,421	$ 3,565	$ 3,479	$ 3,542	$ 3,758	$ 3,737
Notional & Actual Revenue																									
Section 41 Revenue Reduced by Discounts			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,843	$ 13,497	$ 13,708	$ 20,956	$ 21,130	$ 19,749	$ 17,888	$ 18,272	$ 19,027	$ 18,573	$ 18,904	$ 20,152	$ 20,038
Pre-Operation Revenue & Expenditure																									
3rd Qtr 1996 Revenue (Offset against IDC)			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,118	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3rd Qtr 1996 Working Capital			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Return on 3rd Qtr 1996 Working Capital (Added to IDC)			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Addition to Interest During Construction			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	-$ 1,092	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

2. Rate of Return Calculation

IDX	Weighted Average Cost of Capital (WACC)	DRD Model	DRD Model	Annual WACC						
1										
2		Model-A1	Model-A2							
3		2-Jan-95	19-Mar-98	1994	1995	1996	1997	1998Q1	1998Q2/4	1999
4	Inflation Rate (I)			Confidential at the request of Goldfields Gas Transmission						
5	Corporate Tax Rate (T)	33.0%	36.0%	33.0%	33.0%	33.0%	33.0%	33.0%	36.00%	36.00%
6	Nominal Pre Tax WACC (WPn)			Confidential at the request of Goldfields Gas Transmission						
7	Real Pre Tax WACC (WPr)			Confidential at the request of Goldfields Gas Transmission						

3. Capital Recovery Calculation

Quarterly Asset Calcs, Real k$ as at 31 Dec 1999

IDX													
	Year Ending 30 June	**1994**	**1994**	**1994**	**1994**	**1995**	**1995**	**1995**	**1995**	**1996**	**1996**	**1996**	**1996**
	Project Year	**0**	**0**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**3**	**3**
	Quarter	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
	Project Quarter	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
IDX	**Quarter Ending Date**	**31/3/1994**	**30/6/1994**	**30/9/1994**	**31/12/1994**	**31/3/1995**	**30/6/1995**	**30/9/1995**	**31/12/1995**	**31/3/1996**	**30/6/1996**	**30/9/1996**	**31/12/1996**
1	**Quarterly WACC**												
2	Pre-tax Real WACC					Confidential at the request of Goldfields Gas Transmission							
3	**Correction to Interest during Construction**												
4	Correction to Interest During Construction											-$ 1,092	
5	**Plant Value**												
6	Opening Plant Value		$ -	$ 2,635	$ 4,497	$ 7,868	$ 11,482	$ 41,116	$ 112,243	$ 195,338	$ 270,061	$ 376,341	$ 447,170
7	CAPEX		$ 2,635	$ 1,780	$ 3,232	$ 3,369	$ 29,277	$ 69,850	$ 79,611	$ 68,658	$ 97,895	$ 60,237	$ 23,468
8	Interest During Construction		$ -	$ 82	$ 140	$ 244	$ 356	$ 1,277	$ 3,485	$ 6,065	$ 8,385	$ 10,592	$ -
9	Deferred Revenue Recovery		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,579
10	Closing Plant Value	$ -	$ 2,635	$ 4,497	$ 7,868	$ 11,482	$ 41,116	$ 112,243	$ 195,338	$ 270,061	$ 376,341	$ 447,170	$ 476,217
11	**Accumulated Calcs**												
12	Accumulated CAPEX	$ -	$ 2,635	$ 4,415	$ 7,647	$ 11,016	$ 40,293	$ 110,144	$ 189,755	$ 258,413	$ 356,308	$ 416,544	$ 440,013
13	Accumulated Interest During Construction	$ -	$ -	$ 82	$ 221	$ 466	$ 822	$ 2,099	$ 5,584	$ 11,649	$ 20,033	$ 30,626	$ 30,626
14	Accumulated Deferred Revenue Recovery	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,579
15	Closing Plant Value	$ -	$ 2,635	$ 4,497	$ 7,868	$ 11,482	$ 41,116	$ 112,243	$ 195,338	$ 270,061	$ 376,341	$ 447,170	$ 476,217
16	**Closing Asset Value**												
17	Closing Plant Value		$ 2,635	$ 4,497	$ 7,868	$ 11,482	$ 41,116	$ 112,243	$ 195,338	$ 270,061	$ 376,341	$ 447,170	$ 476,217
18	Working Capital		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,055
19	Closing Value		$ 2,635	$ 4,497	$ 7,868	$ 11,482	$ 41,116	$ 112,243	$ 195,338	$ 270,061	$ 376,341	$ 447,170	$ 477,272
20	**Required Revenue = Cost of Service**												
21	Return on Asset					Confidential at the request of Goldfields Gas Transmission							
22	OPEX					Confidential at the request of Goldfields Gas Transmission							
23	Required Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,421
24	**Deemed Revenue**												
25	Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,843
26	**Capital Recovery**												
27	Capital Recovery (-), Under-Recovery (+)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,579

IDX													
	Year Ending 30 June	**1997**	**1997**	**1997**	**1997**	**1998**	**1998**	**1998**	**1998**	**1999**	**1999**	**1999**	**1999**
	Project Year	**3**	**3**	**4**	**4**	**4**	**4**	**5**	**5**	**5**	**5**	**6**	**6**
	Quarter	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
	Project Quarter	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
IDX	**Quarter Ending Date**	**31/3/1997**	**30/6/1997**	**30/9/1997**	**31/12/1997**	**31/3/1998**	**30/6/1998**	**30/9/1998**	**31/12/1998**	**31/3/1999**	**30/6/1999**	**30/9/1999**	**31/12/1999**
1	**Quarterly WACC**												
2	Pre-tax Real WACC												
3	**Correction to Interest during Construction**												
4	Correction to Interest During Construction												
5	**Plant Value**												
6	Opening Plant Value	$ 476,217	$ 490,462	$ 513,553	$ 514,327	$ 514,410	$ 513,819	$ 512,353	$ 510,300	$ 507,989	$ 505,452	$ 502,382	$ 498,045
7	CAPEX	$ 10,415	$ 19,028	$ 3,549	$ 3,017	$ 966	$ 537	$ 264	$ 820	$ 204	$ 76	$ 82	$ 194
8	Interest During Construction	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	Deferred Revenue Recovery	$ 3,830	$ 4,063	-$ 2,775	-$ 2,934	-$ 1,556	-$ 2,003	-$ 2,317	-$ 3,131	-$ 2,741	-$ 3,145	-$ 4,420	-$ 4,428
10	Closing Plant Value	$ 490,462	$ 513,553	$ 514,327	$ 514,410	$ 513,819	$ 512,353	$ 510,300	$ 507,989	$ 505,452	$ 502,382	$ 498,045	$ 493,810
11	**Accumulated Calcs**												
12	Accumulated CAPEX	$ 450,428	$ 469,456	$ 473,005	$ 476,022	$ 476,988	$ 477,525	$ 477,789	$ 478,608	$ 478,812	$ 478,888	$ 478,970	$ 479,163
13	Accumulated Interest During Construction	$ 30,626	$ 30,626	$ 30,626	$ 30,626	$ 30,626	$ 30,626	$ 30,626	$ 30,626	$ 30,626	$ 30,626	$ 30,626	$ 30,626
14	Accumulated Deferred Revenue Recovery	$ 9,409	$ 13,472	$ 10,697	$ 7,762	$ 6,206	$ 4,203	$ 1,886	-$ 1,245	-$ 3,986	-$ 7,131	-$ 11,550	-$ 15,979
15	Closing Plant Value	$ 490,462	$ 513,553	$ 514,327	$ 514,410	$ 513,819	$ 512,353	$ 510,300	$ 507,989	$ 505,452	$ 502,382	$ 498,045	**$ 493,810**
16	**Closing Asset Value**												
17	Closing Plant Value	$ 490,462	$ 513,553	$ 514,327	$ 514,410	$ 513,819	$ 512,353	$ 510,300	$ 507,989	$ 505,452	$ 502,382	$ 498,045	$ 493,810
18	Working Capital	$ 1,316	$ 1,157	$ 1,470	$ 1,332	$ 1,319	$ 1,175	$ 1,015	$ 1,286	$ 1,103	$ 1,243	$ 1,076	$ 1,317
19	Closing Value	$ 491,778	$ 514,710	$ 515,797	$ 515,742	$ 515,138	$ 513,528	$ 511,315	$ 509,275	$ 506,555	$ 503,625	$ 499,121	**$ 495,127**
20	**Required Revenue = Cost of Service**												
21	Return on Asset												
22	OPEX												
23	Required Revenue	$ 17,327	$ 17,771	$ 18,181	$ 18,196	$ 18,192	$ 15,884	$ 15,955	$ 15,897	$ 15,832	$ 15,759	$ 15,732	$ 15,610
24	**Deemed Revenue**												
25	Revenue	$ 13,497	$ 13,708	$ 20,956	$ 21,130	$ 19,749	$ 17,888	$ 18,272	$ 19,027	$ 18,573	$ 18,904	$ 20,152	$ 20,038
26	**Capital Recovery**												
27	Capital Recovery (-), Under-Recovery (+)	$ 3,830	$ 4,063	-$ 2,775	-$ 2,934	-$ 1,556	-$ 2,003	-$ 2,317	-$ 3,131	-$ 2,741	-$ 3,145	-$ 4,420	-$ 4,428

ATTACHMENT 3: Calculation of the Reference Tariff for the 6 year period from 1 January 2000

1. Rate of Return

ERA's Determination of the Weighted Average Cost of Capital (WACC)	ERA ADD 30-Jun-04
Nominal Risk Free Rate (Rfn)	5.89%
Real Risk Free Rate (Rfr)	3.20%
Inflation Rate (I)	2.61%
Debt Proportion (D)	60%
Equity Proportion (E)	40%
Cost of Debt; Risk Margin (Rm)	1.20%
Australian Market Risk Premium (Rp)	6.00%
Equity Beta (Be)	1.33
Asset Beta (Ba)	0.65
Debt Beta (Bd)	0.20
Corporate Tax Rate (T)	31.167%
Franking Credit (g)	50%
Cost of Debt & Equity	
Nominal Pre Tax Cost of Debt (Nd)	7.09%
Real Pre Tax Cost of Debt (Rd)	4.37%
Nominal Post Tax Cost of Equity (EAn)	13.84%
Real Post Tax Cost of Equity (EAr)	10.95%
Nominal Pre Tax Cost of Equity (EPn)	16.39%
Real Pre Tax Cost of Equity (EPr)	13.44%
WACC; Officer (Market Practise or Forward Transformation)	
Nominal Pre Tax WACC (WPn)	**10.81%**
Real Pre Tax WACC (WPr)	**8.00%**
WACC; Officer	
Nominal Post Tax WACC (WAn)	**7.44%**
Real Post Tax WACC (WAr)	**4.71%**

2. Capital Expenditure and Non Capital Costs

Days		**365**	**366**	**365**	**365**	**365**	**366**	**365**
Project Year		**0**	**1**	**2**	**3**	**4**	**5**	**6**
Calendar Year		**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
WACC								
Nominal WACC		10.81%	10.81%	10.81%	10.81%	10.81%	10.81%	10.81%
INFLATION								
Inflation for Tariff Escalation		Actual						
September CPI		123.4	130.9	134.2	138.5	142.1	145.8	149.6
Inflation GST Correction			**2.75%**					
GST Corrected September Inflation			3.33%	2.52%	3.20%	2.60%	2.61%	2.61%
September Inflation Factor			1.00	1.03	1.06	1.09	1.12	1.15
December Inflation		Actual						
December CPI		124.1	131.3	135.4	139.5	142.8	146.5	150.3
December Inflation			5.80%	3.12%	3.03%	2.37%	2.61%	2.61%
December Inflation Factor		1.00	1.06	1.09	1.12	1.15	1.18	1.21
Expenditure								
Notice 41 2004 Data [k$]								
OPEX			$ 9,375	$ 10,560	$ 12,138	$ 15,187	$ 12,555	$ 12,883
CAPEX			$ 3,644	$ 8,391	$ 1,119	$ 10,213	$ 5,872	$ 1,252
Working Capital		$ 1,317	$ 1,219	$ 1,329	$ 1,540	$ 1,897	$ 2,155	$ 2,027
Expenditure [m$]								
OPEX			9.375	10.560	12.138	15.187	12.555	12.883
CAPEX			3.644	8.391	1.119	10.213	5.872	1.252
Working Capital		1.300	1.219	1.329	1.540	1.897	2.155	2.027
Notice 41 2004 Data [k$]								
OPEX	GGT OPEX as at 31/12/1999		$ 8,861	$ 9,679	$ 10,798	$ 13,198		
							ERA OPEX Correction [Nom k$]	ERA OPEX Correction [Nom k$]
		Average OPEX 2000 to 2003 in $ of 31/12/99				GGT N41_04	$ 15,535	$ 15,187
			10,634			ERA	$ 12,555	$ 12,883
						GGT less ERA	$ 2,979	$ 2,304

3. Cost of Service Calculation

Remaining Asset Life	36.50										
Year					**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Project Year					0	1	2	3	4	5	6
Nominal WACC	10.81%				10.81%	10.81%	10.81%	10.81%	10.81%	10.81%	10.81%
Inflation for Escalation of Tariffs											
GST Corrected September Inflation Factor					-	1.00	1.03	1.06	1.09	1.12	1.15
Expenses											
Opex						9.37	10.56	12.14	15.19	12.56	12.88
Capex						3.64	8.39	1.12	10.21	5.87	1.25
Working Capital					1.30	1.22	1.33	1.54	1.90	2.16	2.03
Asset Calculation											
Total Assets [m$ OD]											
Project Year					0	1	2	3	4	5	6
Opening Value						478.7	469.2	464.4	452.1	448.8	440.8
Capex						3.6	8.4	1.1	10.2	5.9	1.3
Depreciation						13.1	13.2	13.5	13.5	13.8	14.0
Closing Plant Value					478.7	469.2	464.4	452.1	448.8	440.8	428.1
Working Capital					1.3	1.2	1.3	1.5	1.9	2.2	2.0
Closing Asset Value					480.0	470.4	465.7	453.6	450.7	443.0	430.1
Initial Investment [m$ OD]											
Project Year					0	1	2	3	4	5	6
Opening Value						478.7	465.6	452.5	439.4	426.2	413.1
Depreciation						13.1	13.1	13.1	13.1	13.1	13.1
Closing Value					478.7	465.6	452.5	439.4	426.2	413.1	400.0
CAPEX Depreciation [m$ OD]		**Total**		**CAPEX**		**3.64**	**8.39**	**1.12**	**10.21**	**5.87**	**1.25**
Project Year	Year				0	1	2	3	4	5	6
D1	1	0.51				-	0.10	0.10	0.10	0.10	0.10
D2	2	0.97				-	-	0.24	0.24	0.24	0.24
D3	3	0.10				-	-	-	0.03	0.03	0.03
D4	4	0.63				-	-	-	-	0.31	0.31
D5	5	0.19				-	-	-	-	-	0.19
Total Capex Depreciation		**2.40**				-	0.10	0.35	0.38	0.69	0.88
Cost of Service, Revenue & Net Cash Flow Calculations											
Cost of Service [m$ OD]											
Project Year	**PV**				0	1	2	3	4	5	6
OPEX	**50.5**					9.4	10.6	12.1	15.2	12.6	12.9
Depreciation	**57.3**					13.1	13.2	13.5	13.5	13.8	14.0
Return on Opening Plant Value	**212.1**					51.8	50.7	50.2	48.9	48.5	47.7
Return on Working Capital	**0.8**					0.1	0.1	0.2	0.2	0.2	0.2
Cost of Service	**320.7**					74.4	74.7	76.0	77.8	75.1	74.8
Revenue [m$ OD]											
Project Year	**PV Revenue**	**% of PV**	**PV CoS**	**Delta**	0	1	2	3	4	5	6
Toll	**36.2**	11.30%	**36.2**	**-**		8.15	8.53	8.59	8.59	8.67	8.78
Capacity	**231.5**	72.20%	**231.5**	**-**		51.85	54.42	55.18	54.71	55.32	56.39
Throughput	**52.9**	16.50%	**52.9**	**-**		11.60	12.18	12.36	12.88	12.97	13.22
Total	**320.7**	**100.00%**	**320.7**	**-**		71.60	75.13	76.13	76.18	76.96	78.39
Cash Flow [m$ OD]											
Project Year	**PV**				0	1	2	3	4	5	6
Revenue	**320.7**					71.6	75.1	76.1	76.2	77.0	78.4
Opex	**50.5**					9.4	10.6	12.1	15.2	12.6	12.9
Depreciation	**57.3**					13.1	13.2	13.5	13.5	13.8	14.0
Operating Revenue	**212.9**					49.1	51.4	50.5	47.5	50.6	51.5
Depreciation	**57.3**					13.1	13.2	13.5	13.5	13.8	14.0
Capex	**-21.9**					-3.6	-8.4	-1.1	-10.2	-5.9	-1.3
Plant Opening Value	**-478.7**				-478.7	-	-	-	-	-	-
Plant Residual Value	**231.2**					-	-	-	-	-	428.1
Working Capital Opening Value	**-1.3**				-1.3	-	-	-	-	-	-
Working Capital Variation & Residual Value	**0.5**		**IRR (WACC)**		0.1	-0.1	-0.2	-0.4	-0.3	0.1	2.0
Net Cash Flow	**-**		**10.81%**		-479.9	58.5	56.0	62.5	50.5	58.7	494.4

4. Tariff Calculation

Tariff and Revenue Calcs									
Toll	**% Increase vs 16 to 20 years**	**Index**	**Seed**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
1 to 5 Years	20.00%	1		0.238058	0.245980	0.252182	0.260262	0.267027	0.273987
6 to 10 Years	10.00%	2		0.218220	0.225482	0.231166	0.238573	0.244775	0.251155
11 to 15 Years	5.00%	3		0.208301	0.215233	0.220659	0.227729	0.233649	0.239739
16 to 20 Years	0.00%	4	0.198382	0.198382	0.204984	0.210151	0.216885	0.222522	0.228323
Capacity Reservation	**% Increase vs 16 to 20 years**	**Index**							
1 to 5 Years	20.0%	1		0.001372	0.001417	0.001453	0.001499	0.001538	0.001579
6 to 10 Years	10.0%	2		0.001257	0.001299	0.001332	0.001374	0.001410	0.001447
11 to 15 Years	5.0%	3		0.001200	0.001240	0.001271	0.001312	0.001346	0.001381
16 to 20 Years	0.0%	4	0.001143	0.001143	0.001181	0.001211	0.001250	0.001282	0.001315
Throughput	**% Increase vs 16 to 20 years**	**Index**							
1 to 5 Years	20.0%	1		0.000402	0.000415	0.000426	0.000439	0.000451	0.000463
6 to 10 Years	10.0%	2		0.000368	0.000381	0.000390	0.000403	0.000413	0.000424
11 to 15 Years	5.0%	3		0.000352	0.000363	0.000373	0.000384	0.000394	0.000405
16 to 20 Years	0.0%	4	0.000335	0.000335	0.000346	0.000355	0.000366	0.000376	0.000385
Calendar Year				**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
MDQ by contract duration [TJ/d]		**Index**							
1 to 5 Years		1		**12.95**	**13.12**	**13.21**	**12.15**	**11.71**	**9.94**
6 to 10 Years		2		-	-	-	-	-	-
11 to 15 Years		3		-	-	-	-	-	-
16 to 20 Years		4		**96.71**	**98.22**	**96.17**	**93.89**	**92.34**	**93.37**
Total MDQ				109.66	111.35	109.38	106.04	104.05	103.31
Q by contract duration [TJ/d]		**Index**							
1 to 5 Years		1		**12.05**	**12.06**	**12.10**	**12.45**	**9.37**	**7.95**
6 to 10 Years		2		-	-	-	-	-	-
11 to 15 Years		3		-	-	-	-	-	-
16 to 20 Years		4		**69.36**	**70.86**	**70.08**	**70.82**	**73.87**	**74.70**
Total Q				81.41	82.92	82.18	83.27	83.24	82.65
MDQ * km by contract duration [km*MDQ TJ/d]		**Index**							
1 to 5 Years		1		**12,945**	**13,169**	**13,287**	**11,890**	**11,513**	**9,928**
6 to 10 Years		2		-	-	-	-	-	-
11 to 15 Years		3		-	-	-	-	-	-
16 to 20 Years		4		**108,413**	**110,457**	**108,921**	**105,698**	**104,090**	**105,539**
Total MDQ				121,358	123,626	122,208	117,588	115,603	115,467
Q * km by contract duration [km*Q TJ/d]		**Index**							
1 to 5 Years		1		**11,862**	**11,805**	**11,584**	**11,904**	**9,210**	**7,942**
6 to 10 Years		2		-	-	-	-	-	-
11 to 15 Years		3		-	-	-	-	-	-
16 to 20 Years		4		**80,389**	**82,235**	**81,550**	**82,084**	**83,272**	**84,431**
Total Q				92,251	94,040	93,134	93,988	92,482	92,373

5. Revenue calculation from tariffs

	2000	2001	2002	2003	2004	2005
Days	**366**	**365**	**365**	**365**	**366**	**365**
Calendar Year	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Toll Revenue [m$ OD]						
1 to 5 Years	1.13	1.18	1.22	1.15	1.14	0.99
6 to 10 Years	-	-	-	-	-	-
11 to 15 Years	-	-	-	-	-	-
16 to 20 Years	7.02	7.35	7.38	7.43	7.52	7.78
Total Toll Revenue	8.15	8.53	8.59	8.59	8.67	8.78
Capacity Reservation Revenue [m$ OD]						
1 to 5 Years	6.50	6.81	7.05	6.51	6.48	5.72
6 to 10 Years	-	-	-	-	-	-
11 to 15 Years	-	-	-	-	-	-
16 to 20 Years	45.35	47.61	48.13	48.21	48.84	50.67
Total Reservation Revenue	51.85	54.42	55.18	54.71	55.32	56.39
Throughput Revenue [m$ OD]						
1 to 5 Years	1.74	1.79	1.80	1.91	1.52	1.34
6 to 10 Years	-	-	-	-	-	-
11 to 15 Years	-	-	-	-	-	-
16 to 20 Years	9.85	10.39	10.56	10.97	11.45	11.88
Total Toll Revenue	11.60	12.18	12.36	12.88	12.97	13.22
Total Revenue [m$ OD]						
1 to 5 Years	9.37	9.78	10.06	9.57	9.15	8.06
6 to 10 Years	-	-	-	-	-	-
11 to 15 Years	-	-	-	-	-	-
16 to 20 Years	62.23	65.35	66.07	66.61	67.81	70.33
Total Toll Revenue	71.60	75.13	76.13	76.18	76.96	78.39

6. Summary of Present Value Calculation

$ million as at 31/12/1999		
	Plant Value	**478.700**
	Working Capital	**1.300**
	Asset Value	**480.000**
	Economic Life	**42.00**
	Historical Life	**5.50**
	Remaining Life	**36.50**
WACC		
	Nominal WACC	10.81%
	Nominal Net Cash Flow IRR	10.81%
PV Cost of Service [m$]		
	OPEX	50.525
	Depreciation	57.265
	Return on Assets	212.123
	Return on Working Capital	0.752
	PV Cost of Service	**320.666**
PV Revenue & PV Net Cash Flow [m$]		
	Toll	36.235
	Capacity	231.521
	Throughput	52.910
	Total PV Revenue	**320.666**
	Opex	50.525
	Depreciation	57.265
	Operating Revenue	**212.876**
	Depreciation	57.265
	Capex	-21.909
	Opening Plant Value	-478.700
	Plant Residual Value	231.220
	Working Capital Opening Value	-1.300
	Working Capital Variation & Residual Value	0.548
	Net Cash Flow	-

7. Tariffs

GST							
GST	10.00%						
GST Savings	0.00%						
Applicable GST	10.00%			**ACTUAL**			**FORECAST**
Tariff Inflation		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
GST Corrected Inflation			3.33%	2.52%	3.20%	2.60%	2.61%
Base Tariff Rounded to 6dp		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Toll [$/GJ MDQ]							
1 to 5 Years		0.238058	0.245980	0.252181	0.260261	0.267026	0.273986
6 to 10 Years		0.218220	0.225482	0.231166	0.238573	0.244774	0.251154
11 to 15 Years		0.208301	0.215233	0.220659	0.227729	0.233648	0.239738
16 to 20 Years		0.198382	0.204984	0.210152	0.216886	0.222523	0.228323
Reservation [$/GJ MDQ/km]							
1 to 5 Years		0.001372	0.001418	0.001454	0.001501	0.001540	0.001580
6 to 10 Years		0.001257	0.001299	0.001332	0.001375	0.001411	0.001448
11 to 15 Years		0.001200	0.001240	0.001271	0.001312	0.001346	0.001381
16 to 20 Years		0.001143	0.001181	0.001211	0.001250	0.001282	0.001315
Throughput [$/GJ Q/km]							
1 to 5 Years		0.000402	0.000415	0.000425	0.000439	0.000450	0.000462
6 to 10 Years		0.000368	0.000380	0.000390	0.000402	0.000412	0.000423
11 to 15 Years		0.000352	0.000364	0.000373	0.000385	0.000395	0.000405
16 to 20 Years		0.000335	0.000346	0.000355	0.000366	0.000376	0.000386
GST Adjusted Tariff Rounded to 6dp		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Toll [$/GJ MDQ]							
1 to 5 Years		0.261864	0.270578	0.277399	0.286287	0.293729	0.301385
6 to 10 Years		0.240042	0.248030	0.254283	0.262430	0.269251	0.276269
11 to 15 Years		0.229131	0.236756	0.242725	0.250502	0.257013	0.263712
16 to 20 Years		0.218220	0.225482	0.231167	0.238575	0.244775	0.251155
Reservation [$/GJ MDQ/km]							
1 to 5 Years		0.001509	0.001560	0.001599	0.001651	0.001694	0.001738
6 to 10 Years		0.001383	0.001429	0.001465	0.001513	0.001552	0.001593
11 to 15 Years		0.001320	0.001364	0.001398	0.001443	0.001481	0.001519
16 to 20 Years		0.001257	0.001299	0.001332	0.001375	0.001410	0.001447
Throughput [$/GJ Q/km]							
1 to 5 Years		0.000442	0.000457	0.000468	0.000483	0.000495	0.000508
6 to 10 Years		0.000405	0.000418	0.000429	0.000442	0.000453	0.000465
11 to 15 Years		0.000387	0.000400	0.000410	0.000424	0.000435	0.000446
16 to 20 Years		0.000369	0.000381	0.000391	0.000403	0.000414	0.000425

ATTACHMENT 4: Calculation of the Reference Tariff for the 10 year period from 1 January 2000

1. Rate of Return

ERA's Determination of the Weighted Average Cost of Capital (WACC)	ERA ADD 30-Jun-04
Nominal Risk Free Rate (Rfn)	5.89%
Real Risk Free Rate (Rfr)	3.20%
Inflation Rate (I)	2.61%
Debt Proportion (D)	60%
Equity Proportion (E)	40%
Cost of Debt; Risk Margin (Rm)	1.20%
Australian Market Risk Premium (Rp)	6.00%
Equity Beta (Be)	1.33
Asset Beta (Ba)	0.65
Debt Beta (Bd)	0.20
Corporate Tax Rate (T)	30.700%
Franking Credit (g)	50%
Cost of Debt & Equity	
Nominal Pre Tax Cost of Debt (Nd)	7.09%
Real Pre Tax Cost of Debt (Rd)	4.37%
Nominal Post Tax Cost of Equity (EAn)	13.84%
Real Post Tax Cost of Equity (EAr)	10.95%
Nominal Pre Tax Cost of Equity (EPn)	16.35%
Real Pre Tax Cost of Equity (EPr)	13.39%
WACC; Officer (Market Practise or Forward Transformation)	
Nominal Pre Tax WACC (WPn)	**10.79%**
Real Pre Tax WACC (WPr)	**7.98%**
WACC; Officer	
Nominal Post Tax WACC (WAn)	**7.48%**
Real Post Tax WACC (WAr)	**4.75%**

2. Capital Expenditure and Non Capital Costs

Days		**365**	**366**	**365**	**365**	**365**	**366**	**365**	**365**	**365**	**366**	**365**
Project Year		**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Calendar Year		**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
WACC												
Nominal WACC		10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%
INFLATION												
Inflation for Tariff Escalation				Actual								
September CPI		123.4	130.9	134.2	138.5	142.1	145.8	149.6	153.5	157.5	161.6	165.8
Inflation GST Correction			**2.75%**									
GST Corrected September Inflation			3.33%	2.52%	3.20%	2.60%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%
September Inflation Factor			1.00	1.03	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.28
December Inflation				Actual								
December CPI		124.1	131.3	135.4	139.5	142.8	146.5	150.3	154.3	158.3	162.4	166.6
December Inflation			5.80%	3.12%	3.03%	2.37%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%
December Inflation Factor		1.00	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.28	1.31	1.34
Expenditure												
Notice 41 2004 Data [k$]												
OPEX			$ 9,375	$ 10,560	$ 12,138	$ 15,187	$ 12,555	$ 12,883	$ 13,218	$ 13,563	$ 13,916	$ 14,279
CAPEX			$ 3,644	$ 8,391	$ 1,119	$ 10,213	$ 5,872	$ 1,252	$ 1,314	$ 1,380	$ 1,449	$ 1,522
Working Capital		$ 1,317	$ 1,219	$ 1,329	$ 1,540	$ 1,897	$ 2,155	$ 2,027	$ 1,957	$ 2,023	$ 2,100	$ 2,164
Expenditure [m$]												
OPEX			9.375	10.560	12.138	15.187	12.555	12.883	13.218	13.563	13.916	14.279
CAPEX			3.644	8.391	1.119	10.213	5.872	1.252	1.314	1.380	1.449	1.522
Working Capital		1.300	1.219	1.329	1.540	1.897	2.155	2.027	1.957	2.023	2.100	2.164
Notice 41 2004 Data [k$]												
OPEX	GGT OPEX as at 31/12/1999		$ 8,861	$ 9,679	$ 10,798	$ 13,198						
							ERA OPEX Correction [Nom k$]					
		Average OPEX 2000 to 2003 in $ of 31/12/99				GGT N41_04	$ 15,535	$ 15,187	$ 14,561	$ 15,030	$ 15,631	$ 16,034
			10,634			ERA	$ 12,555	$ 12,883	$ 13,218	$ 13,563	$ 13,916	$ 14,279
						GGT less ERA	$ 2,979	$ 2,304	$ 1,342	$ 1,467	$ 1,714	$ 1,755

3. Cost of Service Calculation

Remaining Asset Life	36.50														
Year					**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Project Year					0	1	2	3	4	5	6	7	8	9	10
Nominal WACC	10.79%				10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%	10.79%
Inflation for Escalation of Tariffs															
GST Corrected September Inflation Factor					-	1.00	1.03	1.06	1.09	1.12	1.15	1.18	1.21	1.24	1.28
Expenses															
Opex						9.37	10.56	12.14	15.19	12.56	12.88	13.22	13.56	13.92	14.28
Capex						3.64	8.39	1.12	10.21	5.87	1.25	1.31	1.38	1.45	1.52
Working Capital					1.30	1.22	1.33	1.54	1.90	2.16	2.03	1.96	2.02	2.10	2.16
Asset Calculation															
Total Assets [m$ OD]															
Project Year					0	1	2	3	4	5	6	7	8	9	10
Opening Value						478.7	469.2	464.4	452.1	448.8	440.8	428.1	415.4	402.7	390.0
Capex						3.6	8.4	1.1	10.2	5.9	1.3	1.3	1.4	1.4	1.5
Depreciation						13.1	13.2	13.5	13.5	13.8	14.0	14.0	14.1	14.1	14.2
Closing Plant Value					478.7	469.2	464.4	452.1	448.8	440.8	428.1	415.4	402.7	390.0	377.3
Working Capital					1.3	1.2	1.3	1.5	1.9	2.2	2.0	2.0	2.0	2.1	2.2
Closing Asset Value					480.0	470.4	465.7	453.6	450.7	443.0	430.1	417.3	404.7	392.1	379.5
Initial Investment [m$ OD]															
Project Year					0	1	2	3	4	5	6	7	8	9	10
Opening Value						478.7	465.6	452.5	439.4	426.2	413.1	400.0	386.9	373.8	360.7
Depreciation						13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
Closing Value					478.7	465.6	452.5	439.4	426.2	413.1	400.0	386.9	373.8	360.7	347.5
CAPEX Depreciation [m$ OD]		**Total**		**CAPEX**		**3.64**	**8.39**	**1.12**	**10.21**	**5.87**	**1.25**	**1.31**	**1.38**	**1.45**	**1.52**
Project Year	Year				0	1	2	3	4	5	6	7	8	9	10
D1	1	0.92				-	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
D2	2	1.95				-	-	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
D3	3	0.23				-	-	-	0.03	0.03	0.03	0.03	0.03	0.03	0.03
D4	4	1.89				-	-	-	-	0.31	0.31	0.31	0.31	0.31	0.31
D5	5	0.93				-	-	-	-	-	0.19	0.19	0.19	0.19	0.19
D6	6	0.16				-	-	-	-	-	-	0.04	0.04	0.04	0.04
D7	7	0.13				-	-	-	-	-	-	-	0.04	0.04	0.04
D8	8	0.10				-	-	-	-	-	-	-	-	0.05	0.05
D9	9	0.05				-	-	-	-	-	-	-	-	-	0.05
D10	10	-				-	-	-	-	-	-	-	-	-	-
Total Capex Depreciation		**6.37**				-	0.10	0.35	0.38	0.69	0.88	0.92	0.97	1.01	1.07
Cost of Service, Revenue & Net Cash Flow Calculations															
Cost of Service [m$ OD]															
Project Year	**PV**				0	1	2	3	4	5	6	7	8	9	10
OPEX	**73.6**					9.4	10.6	12.1	15.2	12.6	12.9	13.2	13.6	13.9	14.3
Depreciation	**81.1**					13.1	13.2	13.5	13.5	13.8	14.0	14.0	14.1	14.1	14.2
Return on Opening Plant Value	**286.6**					51.7	50.6	50.1	48.8	48.4	47.6	46.2	44.8	43.5	42.1
Return on Working Capital	**1.1**					0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cost of Service	**442.4**					74.3	74.6	75.9	77.7	75.0	74.7	73.7	72.7	71.7	70.8
Revenue [m$ OD]															
Project Year	**PV Revenue**	**% of PV**	**PV CoS**	**Delta**	0	1	2	3	4	5	6	7	8	9	10
Toll	**50.0**	11.30%	**50.0**	**-**		7.87	8.23	8.29	8.29	8.36	8.47	8.63	8.88	9.22	8.94
Capacity	**319.4**	72.20%	**319.4**	**-**		49.99	52.47	53.20	52.75	53.34	54.37	55.27	56.98	59.32	56.87
Throughput	**73.0**	16.50%	**73.0**	**-**		11.10	11.65	11.83	12.32	12.41	12.65	12.86	13.25	13.80	13.23
Total	**442.4**	**100.00%**	**442.4**	**-**		68.95	72.35	73.32	73.36	74.11	75.49	76.76	79.12	82.34	79.04
Cash Flow [m$ OD]															
Project Year	**PV**				0	1	2	3	4	5	6	7	8	9	10
Revenue	**442.4**					69.0	72.4	73.3	73.4	74.1	75.5	76.8	79.1	82.3	79.0
Opex	**73.6**					9.4	10.6	12.1	15.2	12.6	12.9	13.2	13.6	13.9	14.3
Depreciation	**81.1**					13.1	13.2	13.5	13.5	13.8	14.0	14.0	14.1	14.1	14.2
Operating Revenue	**287.7**					46.5	48.6	47.7	44.7	47.7	48.6	49.5	51.5	54.3	50.6
Depreciation	**81.1**					13.1	13.2	13.5	13.5	13.8	14.0	14.0	14.1	14.1	14.2
Capex	**- 24.3**					- 3.6	- 8.4	- 1.1	- 10.2	- 5.9	- 1.3	- 1.3	- 1.4	- 1.4	- 1.5
Plant Opening Value	**- 478.7**				- 478.7	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Plant Residual Value	**135.4**					**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	377.3
Working Capital Opening Value	**- 1.3**				- 1.3	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Working Capital Variation & Residual Value	**0.2**		**IRR (WACC)**		0.1	- 0.1	- 0.2	- 0.4	- 0.3	0.1	0.1	- 0.1	- 0.1	- 0.1	2.2
Net Cash Flow	**-**		**10.79%**		- 479.9	55.8	53.2	59.7	47.7	55.8	61.4	62.2	64.1	66.9	442.7

4. Tariff Calculation

Tariff and Revenue Calcs for Actual Contract Duration													
Toll	**% Increase vs 16 to 20 years**	**Index**	**Seed**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
1 to 5 Years	20.00%	1		0.229753	0.237398	0.243383	0.251182	0.257710	0.264428	0.271320	0.278393	0.285649	0.293095
6 to 10 Years	10.00%	2		0.210607	0.217615	0.223101	0.230250	0.236235	0.242392	0.248710	0.255193	0.261845	0.268670
11 to 15 Years	5.00%	3		0.201034	0.207723	0.212960	0.219784	0.225497	0.231374	0.237405	0.243594	0.249943	0.256458
16 to 20 Years	0.00%	4	0.191460	0.191460	0.197832	0.202819	0.209318	0.214759	0.220357	0.226100	0.231994	0.238041	0.244246
Capacity Reservation	**% Increase vs 16 to 20 years**	**Index**											
1 to 5 Years	20.0%	1		0.001322	0.001366	0.001401	0.001446	0.001483	0.001522	0.001562	0.001602	0.001644	0.001687
6 to 10 Years	10.0%	2		0.001212	0.001252	0.001284	0.001325	0.001360	0.001395	0.001431	0.001469	0.001507	0.001546
11 to 15 Years	5.0%	3		0.001157	0.001196	0.001226	0.001265	0.001298	0.001332	0.001366	0.001402	0.001439	0.001476
16 to 20 Years	0.0%	4	0.001102	0.001102	0.001139	0.001167	0.001205	0.001236	0.001268	0.001301	0.001335	0.001370	0.001406
Throughput	**% Increase vs 16 to 20 years**	**Index**											
1 to 5 Years	20.0%	1		0.000384	0.000397	0.000407	0.000420	0.000431	0.000443	0.000454	0.000466	0.000478	0.000490
6 to 10 Years	10.0%	2		0.000352	0.000364	0.000373	0.000385	0.000395	0.000406	0.000416	0.000427	0.000438	0.000450
11 to 15 Years	5.0%	3		0.000336	0.000348	0.000356	0.000368	0.000377	0.000387	0.000397	0.000408	0.000418	0.000429
16 to 20 Years	0.0%	4	0.000320	0.000320	0.000331	0.000339	0.000350	0.000359	0.000369	0.000378	0.000388	0.000398	0.000409
Calendar Year				**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
MDQ by contract duration [TJ/d]		**Index**											
1 to 5 Years		1		**12.95**	**13.12**	**13.21**	**12.15**	**11.71**	**9.94**	**9.94**	**9.94**	**9.93**	**6.00**
6 to 10 Years		2		-	-	-	-	-	-	-	-	-	-
11 to 15 Years		3		-	-	-	-	-	-	-	-	-	-
16 to 20 Years		4		**96.71**	**98.22**	**96.17**	**93.89**	**92.34**	**93.37**	**92.61**	**92.99**	**93.96**	**93.10**
Total MDQ				109.66	111.35	109.38	106.04	104.05	103.31	102.55	102.93	103.89	99.10
Q by contract duration [TJ/d]		**Index**											
1 to 5 Years		1		**12.05**	**12.06**	**12.10**	**12.45**	**9.37**	**7.95**	**7.95**	**7.95**	**7.94**	**4.80**
6 to 10 Years		2		-	-	-	-	-	-	-	-	-	-
11 to 15 Years		3		-	-	-	-	-	-	-	-	-	-
16 to 20 Years		4		**69.36**	**70.86**	**70.08**	**70.82**	**73.87**	**74.70**	**74.09**	**74.39**	**75.17**	**74.48**
Total Q				81.41	82.92	82.18	83.27	83.24	82.65	82.04	82.34	83.11	79.28
MDQ *km by contract duration [km*MDQ TJ/d]		**Index**											
1 to 5 Years		1		**12,945**	**13,169**	**13,287**	**11,890**	**11,513**	**9,928**	**9,928**	**9,928**	**9,914**	**4,735**
6 to 10 Years		2		-	-	-	-	-	-	-	-	-	-
11 to 15 Years		3		-	-	-	-	-	-	-	-	-	-
16 to 20 Years		4		**108,413**	**110,457**	**108,921**	**105,698**	**104,090**	**105,539**	**104,455**	**105,001**	**106,396**	**105,150**
Total MDQ				121,358	123,626	122,208	117,588	115,603	115,467	114,383	114,929	116,310	109,885
Q *km by contract duration [km*Q TJ/d]		**Index**											
1 to 5 Years		1		**11,862**	**11,805**	**11,584**	**11,904**	**9,210**	**7,942**	**7,942**	**7,942**	**7,931**	**3,788**
6 to 10 Years		2		-	-	-	-	-	-	-	-	-	-
11 to 15 Years		3		-	-	-	-	-	-	-	-	-	-
16 to 20 Years		4		**80,389**	**82,235**	**81,550**	**82,084**	**83,272**	**84,431**	**83,564**	**84,001**	**85,117**	**84,120**
Total Q				92,251	94,040	93,134	93,988	92,482	92,373	91,507	91,943	93,048	87,908

5. Revenue calculation from tariffs

Days	**366**	**365**	**365**	**365**	**366**	**365**	**365**	**365**	**366**	**365**
Calendar Year	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Toll Revenue [m$ OD]										
1 to 5 Years	1.09	1.14	1.17	1.11	1.10	0.96	0.98	1.01	1.04	0.64
6 to 10 Years	-	-	-	-	-	-	-	-	-	-
11 to 15 Years	-	-	-	-	-	-	-	-	-	-
16 to 20 Years	6.78	7.09	7.12	7.17	7.26	7.51	7.64	7.87	8.19	8.30
Total Toll Revenue	7.87	8.23	8.29	8.29	8.36	8.47	8.63	8.88	9.22	8.94
Capacity Reservation Revenue [m$ OD]										
1 to 5 Years	6.27	6.57	6.79	6.27	6.25	5.51	5.66	5.81	5.97	2.92
6 to 10 Years	-	-	-	-	-	-	-	-	-	-
11 to 15 Years	-	-	-	-	-	-	-	-	-	-
16 to 20 Years	43.72	45.91	46.41	46.48	47.09	48.86	49.61	51.17	53.35	53.95
Total Reservation Revenue	49.99	52.47	53.20	52.75	53.34	54.37	55.27	56.98	59.32	56.87
Throughput Revenue [m$ OD]										
1 to 5 Years	1.67	1.71	1.72	1.83	1.45	1.28	1.32	1.35	1.39	0.68
6 to 10 Years	-	-	-	-	-	-	-	-	-	-
11 to 15 Years	-	-	-	-	-	-	-	-	-	-
16 to 20 Years	9.43	9.94	10.10	10.50	10.95	11.36	11.54	11.90	12.41	12.55
Total Toll Revenue	11.10	11.65	11.83	12.32	12.41	12.65	12.86	13.25	13.80	13.23
Total Revenue [m$ OD]										
1 to 5 Years	9.02	9.42	9.69	9.21	8.81	7.76	7.96	8.17	8.39	4.24
6 to 10 Years	-	-	-	-	-	-	-	-	-	-
11 to 15 Years	-	-	-	-	-	-	-	-	-	-
16 to 20 Years	59.93	62.94	63.63	64.15	65.30	67.73	68.80	70.95	73.95	74.80
Total Toll Revenue	68.95	72.35	73.32	73.36	74.11	75.49	76.76	79.12	82.34	79.04

6. Summary of Present Value Calculation

$ million as at 31/12/1999	
Plant Value	**478.700**
Working Capital	**1.300**
Asset Value	**480.000**
Economic Life	**42.00**
Historical Life	**5.50**
Remaining Life	**36.50**
WACC	
Nominal WACC	10.79%
Nominal Net Cash Flow IRR	10.79%
PV Cost of Service [m$]	
OPEX	73.632
Depreciation	81.051
Return on Assets	286.555
Return on Working Capital	1.125
PV Cost of Service	**442.363**
PV Revenue & PV Net Cash Flow [m$]	
Toll	49.987
Capacity	319.386
Throughput	72.990
Total PV Revenue	**442.363**
Opex	73.632
Depreciation	81.051
Operating Revenue	**287.679**
Depreciation	81.051
Capex	- 24.291
Opening Plant Value	- 478.700
Plant Residual Value	135.386
Working Capital Opening Value	- 1.300
Working Capital Variation & Residual Value	0.175
Net Cash Flow	-

7. Tariffs

GST											
GST	10.00%										
GST Savings	0.00%										
Applicable GST	10.00%	**ACTUAL**					**FORECAST**				
Tariff Inflation		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
GST Corrected Inflation			3.33%	2.52%	3.20%	2.60%	2.61%	2.61%	2.61%	2.61%	2.61%
Base Tariff Rounded to 6dp		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Toll [$/GJ MDQ]											
1 to 5 Years		0.229753	0.237399	0.243384	0.251182	0.257711	0.264428	0.271321	0.278393	0.285650	0.293096
6 to 10 Years		0.210607	0.217616	0.223102	0.230251	0.236236	0.242394	0.248712	0.255195	0.261847	0.268672
11 to 15 Years		0.201034	0.207724	0.212961	0.219785	0.225498	0.231376	0.237407	0.243595	0.249945	0.256460
16 to 20 Years		0.191460	0.197831	0.202818	0.209317	0.214758	0.220356	0.226100	0.231993	0.238040	0.244245
Reservation [$/GJ MDQ/km]											
1 to 5 Years		0.001322	0.001366	0.001400	0.001445	0.001483	0.001522	0.001562	0.001603	0.001645	0.001688
6 to 10 Years		0.001212	0.001252	0.001284	0.001325	0.001359	0.001394	0.001430	0.001467	0.001505	0.001544
11 to 15 Years		0.001157	0.001196	0.001226	0.001265	0.001298	0.001332	0.001367	0.001403	0.001440	0.001478
16 to 20 Years		0.001102	0.001139	0.001168	0.001205	0.001236	0.001268	0.001301	0.001335	0.001370	0.001406
Throughput [$/GJ Q/km]											
1 to 5 Years		0.000384	0.000397	0.000407	0.000420	0.000431	0.000442	0.000454	0.000466	0.000478	0.000490
6 to 10 Years		0.000352	0.000364	0.000373	0.000385	0.000395	0.000405	0.000416	0.000427	0.000438	0.000449
11 to 15 Years		0.000336	0.000347	0.000356	0.000367	0.000377	0.000387	0.000397	0.000407	0.000418	0.000429
16 to 20 Years		0.000320	0.000331	0.000339	0.000350	0.000359	0.000368	0.000378	0.000388	0.000398	0.000408
GST Adjusted Tariff Rounded to 6dp		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Toll [$/GJ MDQ]											
1 to 5 Years		0.252728	0.261139	0.267722	0.276300	0.283482	0.290871	0.298453	0.306232	0.314215	0.322406
6 to 10 Years		0.231668	0.239378	0.245412	0.253276	0.259860	0.266633	0.273583	0.280715	0.288032	0.295539
11 to 15 Years		0.221137	0.228496	0.234257	0.241764	0.248048	0.254514	0.261148	0.267955	0.274940	0.282106
16 to 20 Years		0.210606	0.217614	0.223100	0.230249	0.236234	0.242392	0.248710	0.255192	0.261844	0.268670
Reservation [$/GJ MDQ/km]											
1 to 5 Years		0.001454	0.001503	0.001540	0.001590	0.001631	0.001674	0.001718	0.001763	0.001810	0.001857
6 to 10 Years		0.001333	0.001377	0.001412	0.001458	0.001495	0.001533	0.001573	0.001614	0.001656	0.001698
11 to 15 Years		0.001273	0.001316	0.001349	0.001392	0.001428	0.001465	0.001504	0.001543	0.001584	0.001626
16 to 20 Years		0.001212	0.001253	0.001285	0.001326	0.001360	0.001395	0.001431	0.001469	0.001507	0.001547
Throughput [$/GJ Q/km]											
1 to 5 Years		0.000422	0.000437	0.000448	0.000462	0.000474	0.000486	0.000499	0.000513	0.000526	0.000539
6 to 10 Years		0.000387	0.000400	0.000410	0.000424	0.000435	0.000446	0.000458	0.000470	0.000482	0.000494
11 to 15 Years		0.000370	0.000382	0.000392	0.000404	0.000415	0.000426	0.000437	0.000448	0.000460	0.000472
16 to 20 Years		0.000352	0.000364	0.000373	0.000385	0.000395	0.000405	0.000416	0.000427	0.000438	0.000449