

GOLDFIELDS GAS PIPELINE												
	2010	2010	2010	2010	2010	2011	2011	2011	2011	2011	2012	2012
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q1	Q2
	90	91	92	92	90	91	92	92	91	91	91	91

**General**

A series of assumptions have been made about business relationships in the preparation of this model. In developing the input data for rolling forward the opening capital base, actual opex and capex expenditures have been used for the period from 2005 to 2008;

**Model**

This model determines the Roll forward capital base, total revenue and reference tariff for the Goldfields Gas Pipeline.

**Inputs**

All model inputs are shown in blue colour fonts as shown here .  
 All monetary inputs are expressed in \$m rounded to 3 decimal places  
 All monetary inputs for Opex and Capex are in nominal \$ of the day; IAB and depreciations are in historical dollar i.e \$2000 as per the previous AA  
 Pipe capacity forecasts are shown in TJ/d rounded to 2 decimal places  
 Pipe throughput forecasts are expressed in TJ/d rounded to 2 decimal places

Model outputs	2010	2010	2010	2010	2010	2011	2011	2011	2011	2011	2012	2012
<b>Opening capital base (1 January 2010) \$2000</b>												
Nominal-pre tax WACC	\$m	446.22										
Inflation forecasts		13.50%										
		2.40%										
<b>Reference service capacity</b>	TJ/d	4.12										
<b>Qty Reference tariff 2010 to 2014</b>												
Toll charge	\$/GJ	0.311318	0.313170	0.315032	0.316905	0.318790	0.320686	0.322593	0.324511	0.326441	0.328382	
Reservation charge	\$/GJ km	0.001915	0.001927	0.001938	0.001950	0.001961	0.001973	0.001985	0.001996	0.002008	0.002020	
Throughput charge	\$/GJ km	0.000515	0.000518	0.000521	0.000524	0.000527	0.000530	0.000534	0.000537	0.000540	0.000543	
<b>Revenue from reference tariff</b>	\$m	1.022	1.039	1.057	1.063	1.046	1.064	1.082	1.089	1.084	1.090	

GOLDFIELDS GAS PIPELINE	2012		2012		2013		2013		2013		2013		2014		2014		2014	
	Q3 92	Q4 92	Q1 90	Q2 91	Q3 92	Q4 92	Q1 90	Q2 91	Q3 92	Q4 92	Q1 90	Q2 91	Q3 92	Q4 92	Q1 90	Q2 91	Q3 92	Q4 92

**General**

A series of assumptions have been made about business  
In developing the input data for rolling forward the open

**Model**

This model determines the Roll forward capital base, tot:

**Inputs**

All monetary inputs are shown in blue colour fonts as show  
All monetary inputs are expressed in \$m rounded to 3 di  
All monetary inputs for Opex and Capex are in nominal \$  
Pipe capacity forecasts are shown in Tj/d rounded to 2 d  
Pipe throughput forecasts are expressed in Tj/d rounded

Model outputs	2012	2012	2013	2013	2013	2013	2013	2014	2014	2014	2014	2014	2014
<b>Opening capital base (1 January 2010) \$2000</b>													
Nominal-pre tax WACC													
Inflation forecasts													
<b>Reference service capacity</b>													
<b>Qtly Reference tariff 2010 to 2014</b>													
Toll charge	0.330335	0.332299	0.334276	0.336263	0.338263	0.340275	0.342298	0.344334	0.346381	0.348441			
Reservation charge	0.002032	0.002044	0.002057	0.002069	0.002081	0.002093	0.002106	0.002118	0.002131	0.002144			
Throughput charge	0.000546	0.000550	0.000553	0.000556	0.000560	0.000563	0.000566	0.000570	0.000573	0.000576			
<b>Revenue from reference tariff</b>	1.108	1.115	1.097	1.116	1.135	1.142	1.124	1.143	1.162	1.169			



**GOLDFIELDS GAS PIPELINE**

Qty/Tariff setting	2010		2010		2010		2010		2011		2011		2011		2011		2012	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Expected Inflation	2.40%																	
Expected Qty. Inflation	0.59%																	

Tariff escalation index	2009		2009		2010		2010		2010		2010		2011		2011		2011		2011		2012	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
CPI (qtr. index)	167.98	169.0	170.0	171.0	172.0	173.0	174.1	175.1	176.1	177.2	178.2	179.3	180.4									
Estimated CPI (check)	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%									
Annual change (actual)	2.40%																					
Qty/Tariff escalation	0.59%																					

Reference tariff setting		2010		2010		2010		2010		2011		2011		2011		2011		2012	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Toll charge	\$/GJ	0.311318																	
Reservation charge	\$/GJ km	0.001915																	
Throughput charge	\$/GJ km	0.000515																	

PV (Cost of Service for Reference Service) 2010-2014		2010		2010		2010		2010		2011		2011		2011		2011		2012	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Allocation of PV/(cost) to toll charge	\$m	15.90																	
PV/(revenue from toll charge)	\$m	1.80																	
Difference	\$m	0.00																	
Allocation of PV/(cost) to reservation charge	\$m	11.48																	
PV/(revenue from reservation charge)	\$m	11.48																	
Difference	\$m	0.00																	
Allocation of PV/(cost) to throughput charge	\$m	2.62																	
PV/(revenue from throughput charge)	\$m	2.62																	
Difference	\$m	0.00																	

Press Button to solve for allocated Reference tariff on Qty basis

Qty. Compounded Annualised **3.22%**

**OK**

Revenue from toll charge	REFERENCE SERVICE	Revenue from reservation charge	REFERENCE SERVICE	Revenue from throughput charge	REFERENCE SERVICE	Revenue from Reference Service
\$m	0.115	\$m	0.738	\$m	0.169	1.022
	0.117		0.751		0.172	1.039
	0.119		0.763		0.174	1.057
	0.120		0.768		0.175	1.063
	0.118		0.756		0.173	1.046
	0.120		0.769		0.176	1.064
	0.122		0.782		0.179	1.082
	0.123		0.786		0.180	1.089
	0.122		0.782		0.179	1.084
	0.123		0.787		0.180	1.090

GOLDFIELDS GAS PIPELINE												
Qtrly Tariff setting	2012				2013				2014			
	Q3 92	Q4 92	Q1 90	Q2 91	Q3 92	Q4 92	Q1 90	Q2 91	Q3 92	Q4 92	Q1 90	Q2 91

Expected Inflation	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
Expected Qtrly Inflation	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%

Tariff escalation index	2009		2009		2012		2012		2013		2013		2013		2014		2014	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
CPI (qtr. index)	167.98	169.0	170.0	181.4	182.5	183.6	184.7	185.8	186.9	188.0	189.1	190.3	191.4					
Estimated CPI (check)	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%	0.59%					
Annual change (actual)			2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%					
Qtrly Tariff escalation				2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%					

**Reference tariff setting**

Toll charge		\$/GJ	0.330335	0.332299	0.334276	0.336263	0.338263	0.340275	0.342298	0.344334	0.346381	0.348441
Reservation charge		\$/GJ km	0.002032	0.002044	0.002057	0.002069	0.002081	0.002093	0.002106	0.002118	0.002131	0.002144
Throughput charge		\$/GJ km	0.000546	0.000550	0.000553	0.000556	0.000560	0.000563	0.000566	0.000570	0.000573	0.000576

PV (Cost of Service for Reference Service) 2010-2014												
Allocation of PV(cost) to toll charge		\$m										
PV(revenue from toll charge)		\$m										
Difference		\$m										
Allocation of PV(cost) to reservation charge		\$m										
PV(revenue from reservation charge)		\$m										
Difference		\$m										
Allocation of PV(cost) to throughput charge		\$m										
PV(revenue from throughput charge)		\$m										
Difference		\$m										

<b>Revenue from toll charge</b>												
REFERENCE SERVICE		\$m	0.125	0.126	0.124	0.126	0.128	0.129	0.127	0.129	0.131	0.132
<b>Revenue from reservation charge</b>												
REFERENCE SERVICE		\$m	0.800	0.805	0.792	0.806	0.820	0.824	0.811	0.825	0.839	0.844
<b>Revenue from throughput charge</b>												
REFERENCE SERVICE		\$m	0.183	0.184	0.181	0.184	0.187	0.188	0.185	0.189	0.192	0.193
<b>Revenue from Reference Service</b>												
			1.108	1.115	1.097	1.116	1.135	1.142	1.124	1.143	1.162	1.169



GOLDFIELDS GAS PIPELINE						
Cost of Service Revenue	2010	2011	2012	2013	2014	
	4	4	4	4	4	
	365	365	366	365	365	365

Non capital costs						
	\$m					
Non capital costs	26,830	27,168	28,191	31,854	33,715	

Rate of return						
Nominal risk free rate	4.27%	4.27%	4.27%	4.27%	4.27%	4.27%
Real risk free rate	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%
Expected inflation	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
Pre-tax nominal WACC	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%

Inflation						
CPI (Sept qtr)	158.6	166.5	169.0	173.0	177.2	181.4
Estimated CPI (check)				2.40%	2.40%	2.40%
Forecast index				2.40%	2.40%	2.40%
Annual change (actual)				2.40%	2.40%	2.40%
Tariff escalation				2.40%	2.40%	2.40%

Cost of service revenue forecasts						
Opening asset base	446.22	443.64	437.47	429.51	420.68	
Return	\$m	\$m	\$m	\$m	\$m	\$m
Depreciation	60.239	59.891	59.058	57.984	56.792	
Non capital costs	10.824	11.204	11.572	11.851	11.984	
	26.830	27.168	28.191	31.854	33.715	
<b>Total Cost of Service revenue</b>	<b>\$m</b>	<b>97,894</b>	<b>98,264</b>	<b>98,821</b>	<b>101,690</b>	<b>102,491</b>

PV(cost of service)	2010-2014	\$m	<b>345.81</b>
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Goldfields Gas Pipeline CAPEX and OPEX allocation to Reference Service					
	2010	2011	2012	2013	2014
	4	4	4	4	4
	365	365	366	365	365

REFERENCE SERVICE						
Reference Service capacity	TJ/d	4.12	4.12	4.12	4.12	4.12
Wt. avg. distance	km	1,039.0	1,039.0	1,039.0	1,039.0	1,039.0
Total covered capacity	TJ/d	107.4	107.5	107.4	107.8	107.8
Wt. avg. distance	km	1,088.4	1,087.8	1,087.2	1,088.3	1,088.5

OPEX FORECASTS						
	\$m	26,830	27,168	28,191	31,854	33,715

OPEX for Reference Service						
	\$m	2,005	1,417	1,458	2,336	3,167

**GOLDFIELDS GAS PIPELINE  
Capacity and Throughput**

	2010	2011	2012	2013	2014
	4	4	4	4	4
	365	365	366	365	365

**Reserved capacity**

REFERENCE SERVICE	T/J/d	4.12	4.12	4.12	4.12	4.12
TOTAL capacity	T/J/d	107.38	107.53	107.45	107.80	107.79

**Load factor**

REFERENCE SERVICE		85%	85%	85%	85%	85%
TOTAL pipeline		83%	83%	83%	82%	82%

**Throughput**

REFERENCE SERVICE	T/J/d	3.50	3.50	3.50	3.50	3.50
TOTAL throughput	T/J/d	88.70	88.72	88.75	88.71	88.70

**Distance from receipt point**

REFERENCE SERVICE	km	1,039.00	1,039.00	1,039.00	1,039.00	1,039.00
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**Capacity (PJ km/d)**

REFERENCE SERVICE	PJ km/d	4.28	4.28	4.28	4.28	4.28
Total PJkm/d		116.9	117.0	116.8	117.3	117.3

**Throughput (PJ km/d)**

REFERENCE SERVICE	PJ km/d	3.64	3.64	3.64	3.64	3.64
Total PJkm/d		95.5	95.6	95.6	95.5	95.5

Wt. Average distance      1,088.03      1,088.40      1,087.80      1,087.19      1,088.25      1,088.48



Goldfields Gas Pipeline Asset Base_2000-2009	2000 Q1 91	2000 Q2 91	2000 Q3 92	2000 Q4 92	2001 Q1 90	2001 Q2 91	2001 Q3 92	2001 Q4 92	2002 Q1 90	2002 Q2 91	2002 Q3 92
<b>Capital base roll forward</b>											
Capital base (beginning of year)	\$m										
CAPEX [Actual]	513.651	512.354	510.681	508.978	507.286	507.545	506.982	506.402	505.831	505.831	502.796
Depreciation	0.911	0.911	0.911	0.911	2.098	2.098	2.098	2.098	0.280	0.280	0.280
Change in linepack	\$m	2.574	2.594	2.604	2.614	2.632	2.651	2.669	2.687	2.691	2.695
Change in working capital	\$m	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Capital base (end of year)	\$m	512.354	510.681	508.978	507.286	507.545	506.982	506.402	505.831	502.796	500.363
											497.928



Goldfields Gas Pipeline Asset Base_2000-2009		2002 Q4 92	2003 Q1 90	2003 Q2 91	2003 Q3 92	2003 Q4 92	2004 Q1 91	2004 Q2 91	2004 Q3 92	2004 Q4 92	2005 Q1 90	
<b>Capital base roll forward</b>												
Capital base (beginning of year)	\$m	497.928	495.508	496.799	496.572	496.324	496.090	494.125	492.848	491.548	490.255	488.105
CAPEX [Actual]		0.280	2.535	2.535	2.535	2.535	1.535	1.535	1.535	1.535	1.535	0.644
Depreciation	\$m	2.699	2.703	2.725	2.747	2.789	2.791	2.812	2.808	2.828	2.848	
Change in linepack	\$m	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Change in working capital	\$m	0.000	1.459	-0.036	-0.036	0.000	-0.708	0.000	-0.028	0.000	0.000	0.054
Capital base (end of year)	\$m	495.508	496.799	496.572	496.324	496.090	494.125	492.848	491.548	490.255	488.105	

Goldfields Gas Pipeline Asset Base_2000-2009		2005 Q2 91	2005 Q3 92	2005 Q4 92	2006 Q1 90	2006 Q2 91	2006 Q3 92	2006 Q4 92	2007 Q1 90	2007 Q2 91	2007 Q3 92	
<b>Capital base roll forward</b>												
Capital base (beginning of year)	\$m	488,105	485,632	482,717	479,990	477,343	475,463	473,176	470,512	468,335	466,235	463,267
CAPEX [Actual]		0,488	0,144	0,145	0,254	0,780	0,694	0,405	0,624	0,799	0,287	
Depreciation	\$m	2,856	2,864	2,872	2,880	2,896	2,912	2,928	2,943	2,960	2,977	
Change in linepack	\$m	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Change in working capital	\$m	-0,105	-0,195	0,001	-0,022	0,236	-0,069	-0,141	0,143	0,061	-0,277	
Capital base (end of year)	\$m	485,632	482,717	479,990	477,343	475,463	473,176	470,512	468,335	466,235	463,267	



Goldfields Gas Pipeline Asset Base_2000-2009	2007 Q4 92	2008 Q1 91	2008 Q2 91	2008 Q3 92	2008 Q4 92	2009 Q1 90	2009 Q2 91	2009 Q3 92	2009 Q4 92
<b>Capital base roll forward</b>									
Capital base (beginning of year)	\$m								
CAPEX [Actual]	463,267	460,261	457,562	455,351	452,653	450,395	450,662	449,966	448,357
Depreciation	0.086	0.046	0.557	0.425	0.664	2.271	2.361	1.573	0.939
	\$m	3,010	3,020	3,030	3,040	3,050	3,061	2,757	2,768
Change in linepack	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Change in working capital	\$m	-0.099	0.264	0.252	-0.093	0.117	1.047	0.004	-0.425
Capital base (end of year)	\$m	460,261	457,562	455,351	452,653	450,395	450,662	449,966	448,357
									446,218

Goldfields Gas Pipeline					
Asset Base_2010-2014	2010	2011	2012	2013	2014
	4	4	4	4	4
	365	365	366	365	365

Capital base roll forward						
Capital base (beginning of year)	\$m					
CAPEX	446.2	443,638	437,469	429,513	420,680	
Depreciation	7.018	5,216	3,689	2,681	2,103	
Change in linepack	\$m	10.824	11,204	11,572	11,851	11,984
Change in working capital	\$m	0.000	0.000	0.000	0.000	0.000
Capital base (end of year)	\$m	1.226	-0.180	-0.073	0.338	0.158
		443,638	437,469	429,513	420,680	410,958