

Chapter 9 - Reference Tariff Summary

KEY ASPECTS

Summary – this chapter provides an executive summary of the final decision on QR's proposed reference tariffs.

9.1 Introduction

Part 5 of the Draft Undertaking sets out the pricing framework that QR proposes to use to determine access charges. Basically, this framework provides for access charges to fall between a floor (incremental cost) and a ceiling (stand-alone cost). This pricing framework therefore allows a wide range of possible prices.

In order to provide greater transparency and reduce negotiation costs, QR has developed reference tariffs for a specified train, known as the reference train service. The access charge for a train service may be higher or lower than the relevant reference tariff where the train service characteristics differ from the reference train service characteristics.

9.2 QR's proposed reference tariffs

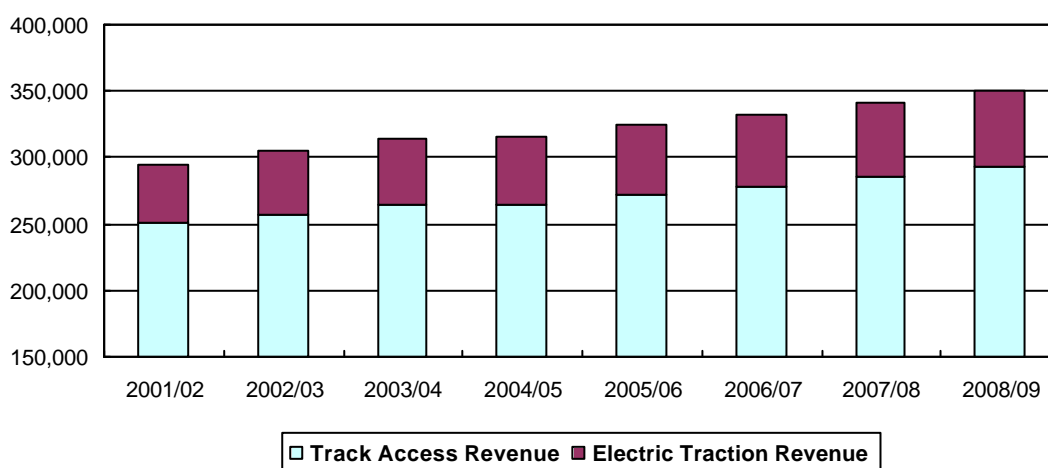
QR has not submitted any new reference tariffs to the QCA.

9.3 Reference tariff determination

On the basis of the QCA's proposed reference tariffs and APCS's conservative coal growth forecasts, QR's access revenues from the coal network are expected to average approximately \$256 million per annum (excluding electric traction charges) over the initial 4-year regulatory period from 1 July 2001 to 30 June 2005. QR is expected also to earn approximately \$44 million per annum for the use of its electric overhead system.

These revenues have been assessed in meeting the stand-alone cost of QR providing access to its network for coal traffics in Central Queensland. The forecast annual revenues for the coal network are shown in Figure 9.1

**Figure 9.1: QR's coal system access revenues
(Nominal \$'000)**



The above forecast revenues have been determined by applying QR's proposed revenue formula given in section 5.2.4 of the Draft Undertaking. The resulting reference tariffs, if applied for the full evaluation period, would provide QR with the required total revenue. However, by applying these reference tariffs for only the regulatory period, QR will under-recover revenues by approximately \$30 million as at 30 June 2005. This is chiefly caused by the application of straight-line depreciation in the financial modelling framework adopted. It is proposed that the under-recovery will be amortised over the remainder of the evaluation period. This adjustment

is in addition to those adjustments made as outlined in 16.2 which relate to under and over-recovery in the incentive regulatory environment.

In 2001-02, forecast track access revenue increased from \$240 million in the Draft Decision to \$250 million as identified in Figure 9.1. This increase is the result of a small increase in the real rate of return and a reduction in the carry-over from the regulatory period to the remainder of the evaluation period.

The QCA has endorsed QR's proposed assignment of mines into clusters as set out in Table 9.1

Table 9.1: Mines in each cluster

Moura		Newlands	
Boundary Hill		Newlands	
Callide		Collinsville	
Moura			

Central Blackwater	Stanwell¹	Gregory via Blackwater²
Curragh	Cook	Ensham
Jellinbah East	Blackwater	Kestral
Yarabee	Curragh	Gregory / Crinum
Cook	Ensham	
Blackwater		
South Blackwater		

North Goonyella	South Goonyella	West Goonyella
South Walker Creek	Peak Downs	Blair Athol
Coppabella	Saraji	
Burton	Norwich Park	
Moranbah North	German Creek	
Goonyella	Oaky Creek	
Riverside	Foxleigh	
North Goonyella		

¹ In addition, all mines in the Central Blackwater cluster are considered to be points of origin for the Stanwell cluster.

² These same mines are also considered points of origin for the Gregory via Goonyella cluster.

The reference tariffs proposed by the QCA, exclusive of GST, are outlined below in Table 9.2:

Table 9.2: Reference tariffs³

Price Component	Units	Moura	Newlands
Incremental maintenance charge	\$/'000 GTK	1.03	1.07
Incremental capacity charge	\$/train path	0*	0*
Allocated Component 1	\$/'000 NTK	8.37	6.49
Allocated component 2	\$/net tonne	1.33	1.00
Electric traction access charge	\$/'000 GTK	n/a	n/a

* Incremental capacity charges are yet to be developed for the Newlands and Moura systems. The levying of an incremental capacity cost for each system will correspondingly reduce each of the allocated components.

Price Component	Units	Central Blackwater	Stanwell	Gregory via Blackwater
Incremental maintenance charge	\$/'000 GTK	0.55	0.55	0.55
Incremental capacity charge	\$/train path	500	500	500
Allocated Component 1	\$/'000 NTK	3.60	3.54	n.a.
Allocated component 2	\$/net tonne	1.18	0.65	2.26
Electric traction access charge	\$/'000 GTK	1.04	1.04	1.04

Price Component	Units	North Goonyella	South Goonyella ⁴	West Goonyella
Incremental maintenance charge	\$/'000 GTK	0.38	0.38	0.38
Incremental capacity charge	\$/train path	300	400	300
Allocated component 1	\$/'000 NTK	2.64	2.64	2.64
Allocated component 2	\$/net tonne	0.61	0.59	0.61
Electric traction access charge	\$/'000 NTK	0.93	0.93	0.93

³ The charge for electricity, as opposed to the use of the overhead electricity distribution system, is not included in these reference tariffs.

⁴ It has been assumed that the mines in the Gregory cluster would pay access charges for use of the Goonyella system on the same basis as applies to the South Goonyella cluster.

Table 9.3 provides a breakdown of total revenue by revenue component for each cluster in the coal region.

Table 9.3: Revenue Breakdown by Cluster - 2001/02
(\$'000)

	Incremental Maintenance	Incremental capacity	NTK Component	NT Component	Total	Electric O/H Access
Moura	2,332	0	11,646	11,646	25,624	0
Central Blackwater	5,023	2,684	21,178	21,178	50,063	9,418
Stanwell	780	696	3,046	3,046	7,568	1,462
Gregory via Blackwater	4,529	2,067	0	31,560	38,155	8,491
Newlands	3,045	0	11,217	11,217	25,479	0
Goonyella North	3,285	2,072	14,084	14,084	33,524	8,015
Goonyella West	1,983	813	8,492	8,492	19,781	4,838
Goonyella South	4,652	2,149	19,927	19,927	46,654	11,349
Gregory via Goonyella	385	141	1,650	1,650	3,827	940
Total	26,014	10,622	91,240	122,800	250,675	44,513

Figures 9.2 to 9.10 depict the reference tariff-net tonne relationship for each cluster and show how the access charge varies with haulage distance. Incremental capacity costs are yet to be determined for the Moura and Newlands corridors.

Figure 9.2: Moura reference tariff

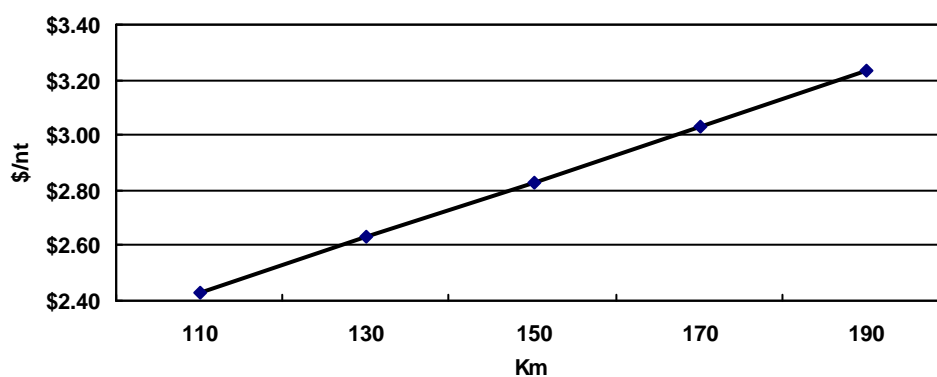


Figure 9.3: Newlands reference tariff

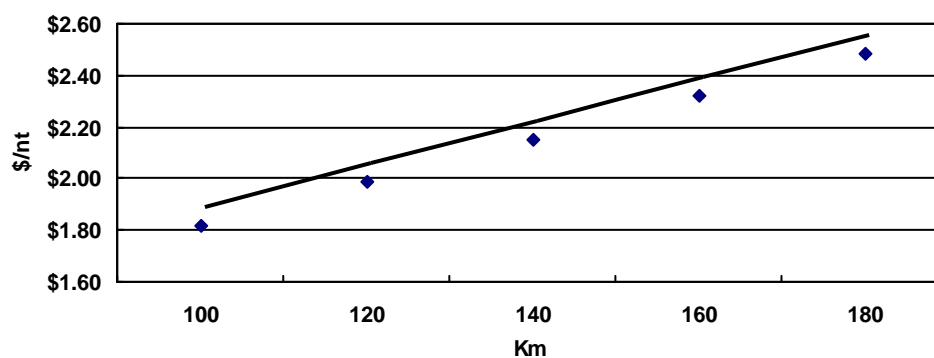


Figure 9.4: Central Blackwater reference tariff

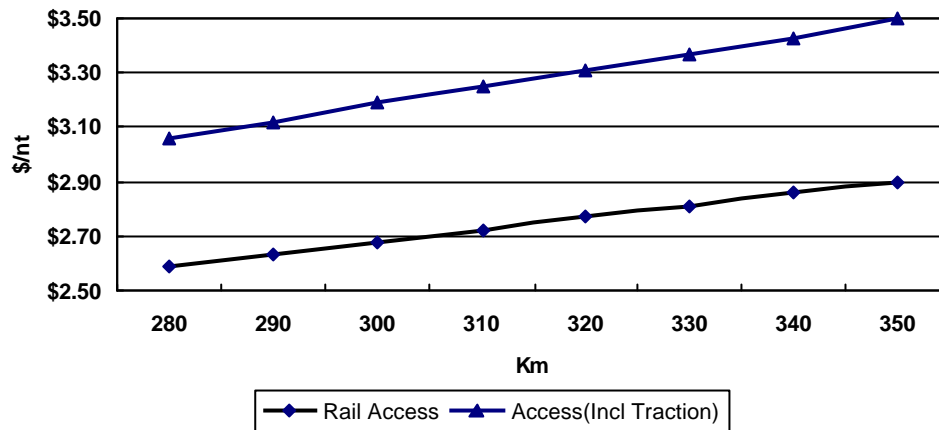


Figure 9.5: Stanwell reference tariff

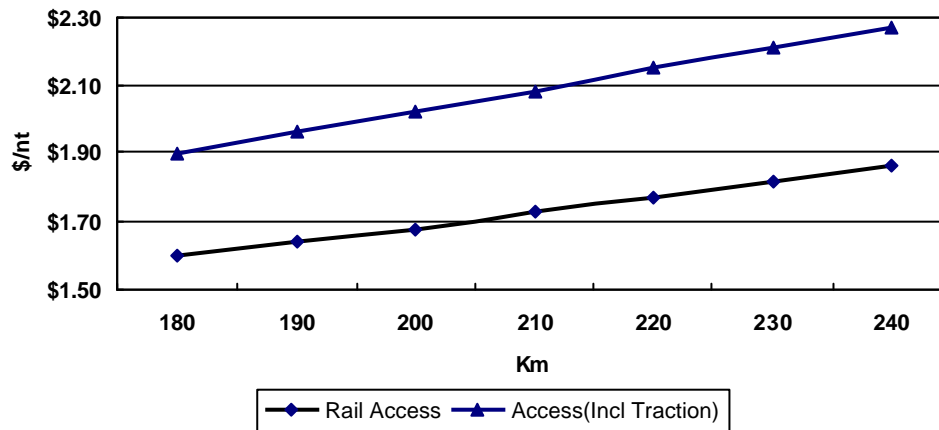


Figure 9.6: Gregory via Blackwater reference tariff

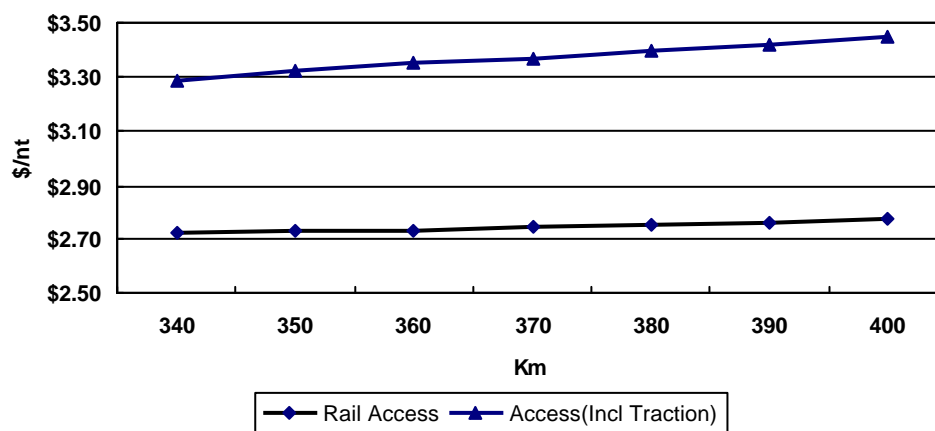


Figure 9.7: Gregory via Goonyella reference tariff

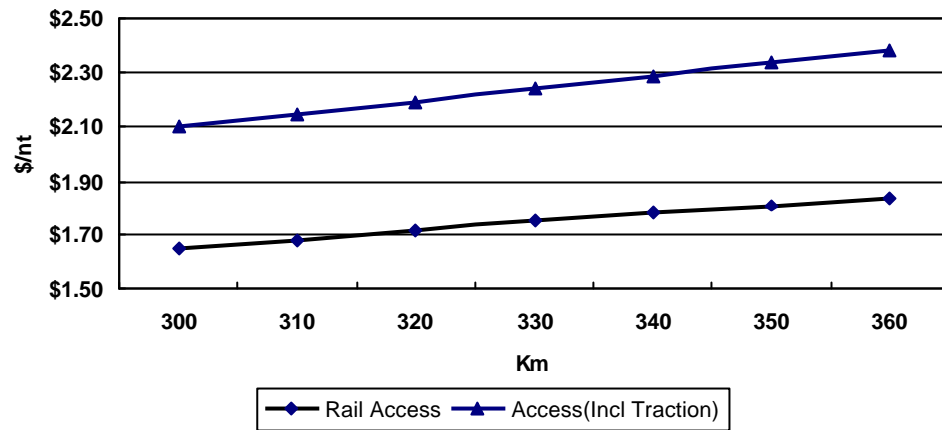


Figure 9.8: Goonyella South reference tariff

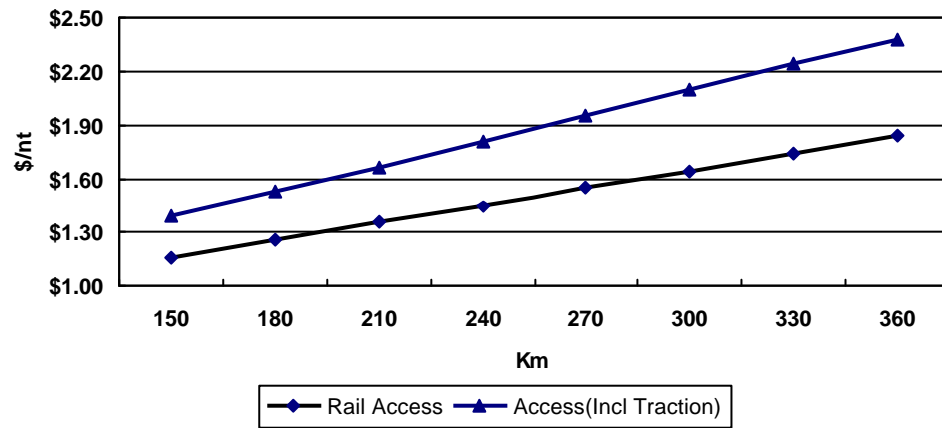


Figure 9.9: Goonyella North reference tariff

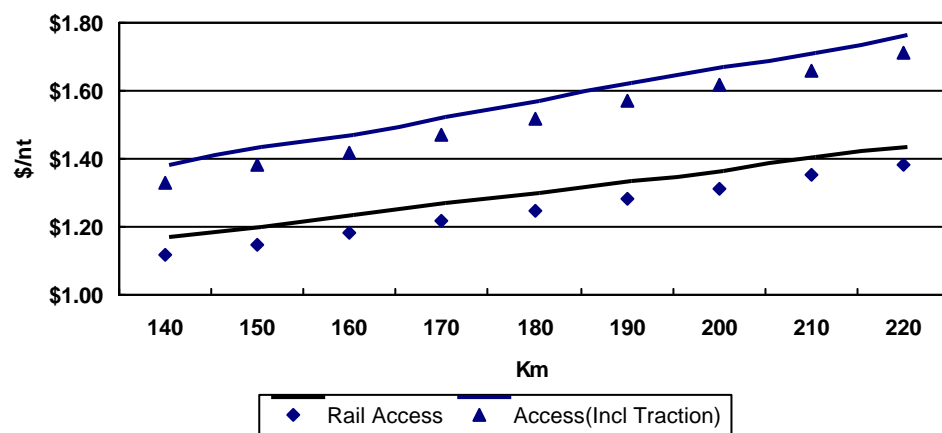


Figure 9.10: Goonyella West reference tariff

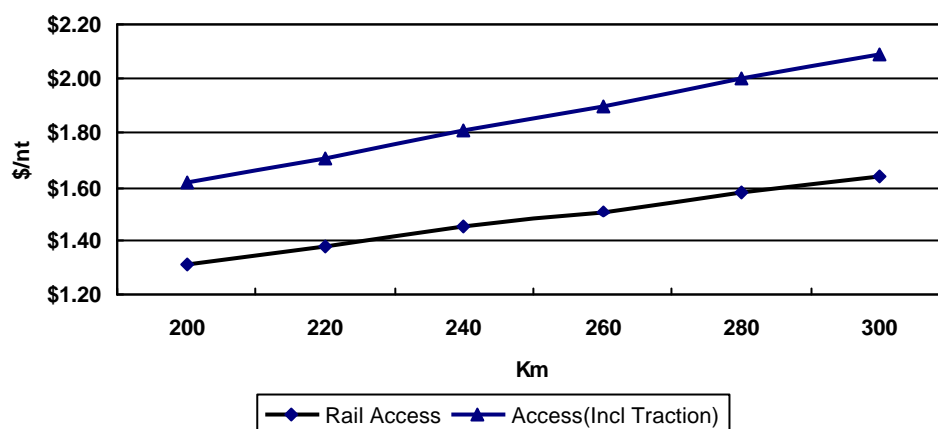


Table 9.4 illustrates the access charges applying under QCA's approach for each mine, assuming operation of the reference train service. The assumptions underpinning these access charges are contained in Table 9.5.

Table 9.4: Reference Tariffs by Loading Point - 2001/02

Loading Point	Unloading point	Route Kms	Rail Access \$/nt	Rail access \$/,000gtk
Goonyella South Cluster				
Peak Downs	Hay Point	190.6	1.29	4.17
Saraji	Hay Point	211.7	1.36	3.95
Norwich Park	Hay Point	255.2	1.50	3.62
German Creek	Dalrymple Bay	276.9	1.57	3.50
Oaky Creek	Hay Point	294.9	1.63	3.40
Foxleigh	Dalrymple Bay	276.1	1.57	3.50
Goonyella North Cluster				
South Walker Creek	Hay Point	145.1	1.14	4.82
Macarthur/Coppabella	Dalrymple Bay	142.0	1.13	4.88
Burton	Dalrymple Bay	169.3	1.22	4.42
Monanbah North	Dalrymple Bay	194.6	1.30	4.10
Goonyella	Hay Point	197.4	1.31	4.07
Riverside	Dalrymple Bay	203.9	1.33	4.01
North Goonyella	Dalrymple Bay	214.7	1.36	3.91
Goonyella West Cluster				
Blair Athol	Dalrymple Bay	279.6	1.57	3.46
Gregory via Goonyella Cluster				
Ensham	Dalrymple Bay	353.0	1.82	3.17
Yongala	Dalrymple Bay	350.0	1.81	3.18
Kestral	Dalrymple Bay	327.6	1.74	3.26
Gregory	Hay Point	312.4	1.69	3.33
Central Blackwater Cluster				
Boonal	Gladstone	284.0	2.61	5.61
Koorilgah	Gladstone	308.7	2.72	5.38
Curragh	Gladstone	306.5	2.71	5.40
Boorgoon	Gladstone	309.1	2.72	5.38
Kinrolla	Gladstone	316.6	2.75	5.31
Laleham	Gladstone	314.7	2.75	5.33
Gregory via Blackwater Cluster				
Ensham	Gladstone	341.0	2.72	4.87

Yongala	Gladstone	367.8	2.74	4.56
Kestral	Gladstone	367.8	2.74	4.56
Gregory	Gladstone	366.4	2.74	4.57
Oaky Creek	Gladstone	385.8	2.76	4.37
Stanwell Cluster				
Koorilgah	Stanwell P/house	183.5	1.61	5.37
Curragh	Stanwell P/house	181.2	1.60	5.40
Boorgoon	Stanwell P/house	184.9	1.62	5.35
Kinrola	Stanwell P/house	192.0	1.65	5.25
Moura Cluster				
Boundary Hill	Gladstone P/house	115.9	2.49	13.12
Boundary Hill	QAL	124.0	2.57	12.67
Dunn Creek	Gladstone P/house	150.0	2.83	11.53
Moura	Gladstone	178.5	3.12	10.67
Newlands Cluster				
McNaughton	Abbot Point	108.3	1.90	10.59
Newlands	Abbot Point	176.0	2.45	8.44

Table 9.5: Reference Tariff Assumptions by Cluster

	Loaded direction Gross Tonnes	Unloaded direction Gross Tonnes	STPs consumed per cycle	2001/02 Net Tonnes ('000)	2001/02 NTKs ('000)	2001/02 GTKs ('000)	2001/02 Train Paths Consumed
Moura	5,800	1,400	2	8,800	1,390,604	2,275,534	4,000
Central Blackwater	8,900	2,150	2	18,120	5,543,631	9,075,129	5,369
Stanwell	8,900	2,150	2	4,700	860,291	1,408,328	1,393
Gregory via Blackwater	8,900	2,150	2	13,950	4,997,878	8,181,711	4,133
Newlands	6,300	1,550	2	11,200	1,727,856	2,856,146	4,716
Goonyella North	13,000	3,100	2	29,300	5,326,480	8,662,454	5,919
Goonyella West	13,000	3,100	2	11,500	3,214,940	5,228,457	2,323
Goonyella South	13,000	3,100	2	30,400	7,541,780	12,265,197	6,141
Gregory via Goonyella	13,000	3,100	2	2,000	624,720	1,015,982	404

9.4 Demand forecasts

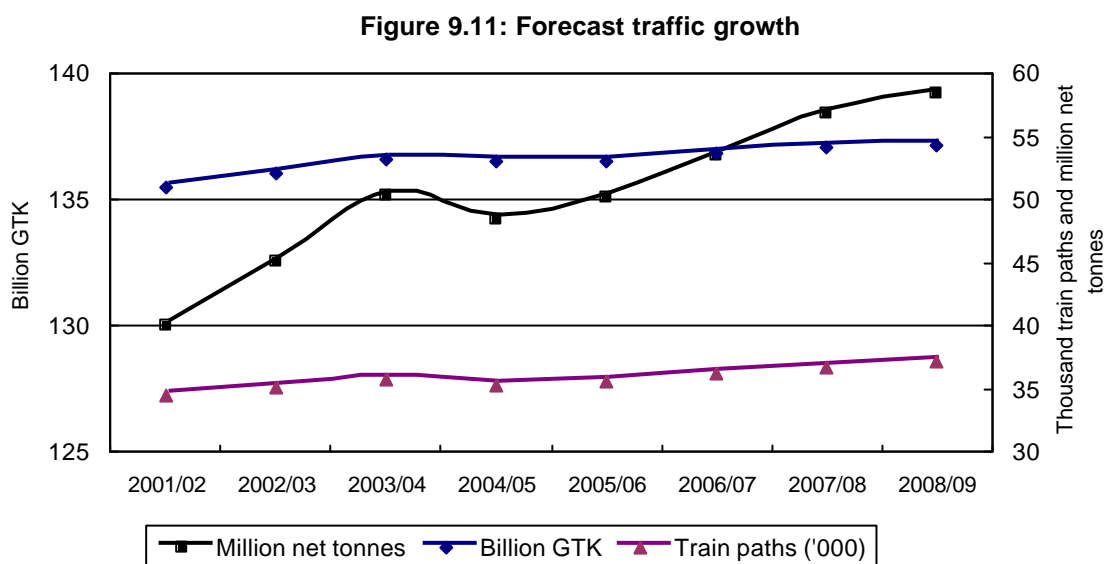
The QCA has rejected QR's revised demand forecasts and has adopted the most conservative forecasts provided by its consultants. Hence, as part of the regulatory arrangements, the Authority proposes to offer QR a choice between:

- a price cap based upon demand forecasts adopted by the Authority; and
- a revenue cap.

Should QR opt for a revenue cap the reference tariffs proposed by the QCA will apply for 2001-02, with appropriate adjustments to account for any under or over-recovery of revenues.

QR will be required to make this choice as part of the approval of the Draft Undertaking.

The pricing model requires four distinct measures of the forecast traffic volume facing each of the four coal corridors, namely net tonne kilometres, gross tonne kilometres, number of train paths required and net tonnes. These forecasts were based on APCS's tonnage forecasts using individual mine-by-mine trip lengths and reference train configurations, as indicated in Table 9.5 above. The forecast traffic volumes are given in Figure 9.11



9.5 Assessment of stand-alone cost

Table 9.6 provides a break-up of total costs by cost category for each corridor in the coal region.

Table 9. 6: Cost Breakdown by Corridor - 2001/02
(\$'000)

	O & M	Regional & System Wide	Tax	Transitional Costs	Depreciation	ROA	Total
Moura	3,192	2,241	689	641	1,850	17,011	25,624
Blackwater	20,326	8,186	2,356	4,067	4,788	56,063	95,786
Goonyella	32,972	8,950	1,634	6,544	2,722	50,964	103,786
Newlands	4,343	1,811	679	748	863	17,035	25,479
Total	60,833	21,188	5,358	12,000	10,223	141,073	250,675

9.6 Asset valuation

The total gross replacement value (GRV) of assets was \$2.85 billion, which included \$508 million of electrical overhead infrastructure. The QCA accepted QR's GRV which incorporated:

- QR's proposed 9% financing charge;
- inclusion of an allowance for the actual costs incurred in the brownfields development of the network, totalling \$27 million; and
- exclusion of approximately 50 kilometres of duplicated track, valued at \$33.6 million, on the Callemondah to Rocklands section of the Blackwater system due to the capacity optimisation of the network.

However, the GRV excluded staging costs valued at \$15 million in accordance with QR's submissions.

The opening asset values, as at 01/07/2001, used in the calculation of reference tariffs, were, \$1.76 billion for below-rail assets (including track, signals and earthworks) and \$267 million for electric traction assets or \$2.03 billion in total, expressed in 2001 dollars. As a result, there has been no change in the overall value of assets from the Draft Decision.

The calculation of terminal values used the same depreciation rates/asset lives as those used to calculate the opening asset values discussed above. The forecast terminal values used in the calculation of reference tariffs are \$1.9 billion for below-rail assets and \$224.4 million for electric traction assets or \$2.12 billion in total, expressed in 2009 dollars.

9.7 Rate of Return

The risk-free rate, based upon the 10-year Commonwealth Government bond yield averaged over 20 trading days commencing 22 May is 5.97%. The post-tax nominal rate of return is 8.68%.