



Final Decision

**QR Network's Annual Review of
Reference Tariffs 2012-13**

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1. SUMMARY OF QR NETWORK'S APPLICATION AND THE AUTHORITY'S ASSESSMENT

1.1 Background

QR Network's 2010 access undertaking provides for QR Network to seek the Authority's approval to adjust its reference tariffs prior to the beginning of each financial year. This adjustment is based on:

- (a) updating inflation forecasts with actual inflation estimates, for both the Consumer Price Index (CPI) and Maintenance Cost Index (MCI); and
- (b) updating volume forecasts – i.e. net tonnes (nt) and gross tonne kilometres (gtk);
- (c) adjusting system allowable revenues for any under- or over-recovery of the revenue cap in the previous financial year.

The 2010 access undertaking also allows QR Network to update the forecast system allowable revenues and reference tariffs (for each coal system) in subsequent years to reflect the actual change in the MCI and CPI (less the approved x-factor). This ensures that the operating and maintenance costs are constantly updated as escalation measures are known so that in subsequent years of the regulatory period, the cumulative effect of differences between the forecast and actual MCI and CPI will be less pronounced.

1.2 Stakeholders' Comments

QR Network's approved 2010 access undertaking requires it to submit its annual variation of reference tariffs proposal by 28 February each year. QR Network lodged its 2012-13 application for the Authority's approval on 28 March 2012.

The Authority published QR Network's proposal and received a submission from Asciano, who was concerned about the assumptions behind QR Network's volume re-forecasts, in particular, that QR Network's derivation of these forecasts was not sufficiently transparent.

1.3 Assessment Criteria

QR Network's 2010 access undertaking states that the Authority will approve QR Network's annual review of reference tariffs proposal if it is satisfied that the proposal has been calculated in accordance with the relevant undertaking provisions, which require that:

- (a) for volumes – the revised volume forecasts are reasonable and the consequential adjustments to the system allowable revenues and tariffs are calculated properly;
- (b) for revenue cap related amendments:
 - (i) the revenue cap under- or over-recoveries approved by the Authority have been escalated to account for the time lag in the adjustment to reference tariffs; and
 - (ii) the revenue caps for all subsequent years are adjusted to reflect the actual change in the MCI and CPI less the approved x-factor used in calculating the approved revenue cap adjustment.
- (c) QR Network has accurately revised system allowable revenues and the resulting reference tariffs based on the aforementioned changes to the input estimates.

In line with the undertaking's requirements, QR Network has provided details on the methods, data and assumptions used to determine the proposed variations and reference tariffs. QR Network's submission also summarises its modelling results and included, on a confidential basis, copies of its financial models.

1.4 QR Network's Proposed Changes to the Cost Components

Escalated Operating & Maintenance Costs

System allowable revenues have been determined with reference to forecasts of the CPI and the MCI. The 2010 undertaking requires QR Network to annually update the system allowable revenues to reflect changes between the forecast and actual CPI and MCI (less approved x-factors); that is, the forecasts under-pinning the 2012-13 system allowable revenues and reference tariffs are updated to reflect the actual 2010-11 CPI and MCI figures. The forecast CPI used to calculate the original tariffs was 2.5%, whereas the actual CPI for 2010-11 was 3.8%. The differences in the forecast and actual MCI for 2010-11 are set out in Table 1.

Table 1: Change in MCI Index

<i>Index Components</i>	<i>Weightings</i>	<i>2010-11 Forecast Growth</i>	<i>2010-11 Actual Growth</i>
Fuel	3.2%	1.027	1.090
Accommodation	1.5%	1.025	1.022
Consumables	34.9%	1.008	1.032
Labour	44.5%	1.044	1.044
Assets	15.9%	1.012	1.012
Weighted Index	100%	1.027	1.036
MCI		2.7%	3.6%
MCI-X (cumulative)		7.7%	9.6%

Given this, QR Network has proposed to increase system allowable revenue in 2012-13 based on an increase of:

- (a) \$0.75 million (i.e. from \$56.9 million to \$57.7 million) in operating costs, in line with a higher than forecast CPI; and
- (b) \$1.78 million (i.e. from \$180.4 million to \$182.2 million) in maintenance costs, in line with a higher than forecast MCI.

The Authority has assessed QR Network's revised operating cost estimates and has confirmed that QR Network has used the appropriate CPI estimates to accurately adjust its operating costs allowance.

The Authority has assessed the indices used in QR Network's adjustments using relevant publicly available data (ABS and Australian Automobile Association (for fuel)) against the Authority's approved maintenance allowance schedule and found that QR Network has accurately adjusted its maintenance cost allowances.

The incremental impact on the adjusted system allowable revenue for 2012-13 from maintenance and operating costs is \$0.096 million, consisting of \$0.107 million increase to the non-electric revenues, and \$0.011 million decrease to electric revenues.

1.5 Assessment of QR Network's 2012-13 Volume Forecasts

In its submission, QR Network proposed to revise its volume forecasts for 2012-13 downwards by 17% (see **Table 2** for further details).

Table 2: Comparison of Volumes Forecasts for 2012-13 (mtpa)^a

<i>System</i>	<i>2010 Undertaking</i>	<i>Proposed 2012-13 Revised Forecasts</i>	<i>Variance / %^a</i>
Blackwater	64.6	57.7	-11%
Goonyella	124.9	99.0	-21%
Moura	16.4	13.5	-18%
Newlands	17.5	15.8	-10%
Total	223.5	186.0	-17%

a. These forecasts exclude volumes on the Goonyella to Abbot Point Expansion.

QR Network acknowledged that the revised volume forecasts are considerably lower than the approved 2011-12 forecasts and the 2012-13 estimates. QR Network ascribed the decrease to continuing uncertainty regarding a number of recent events, including:

- (a) demand-side factors such as:
 - (i) a severe downturn in the EU zone, leading to a reduction in demand for manufactured goods, in turn causing a reduction in demand for both metallurgical and thermal coal in key Queensland export markets; and
 - (ii) rebalancing of growth in China, with forecast Chinese economic growth in 2012 reducing from 8.0% to 7.5%;
- (b) supply-side factors such as:
 - (i) flooded mines, caused by on-going effects of the 2010-11 floods and heavy rains late into the 2011-12 wet season; and
 - (ii) increased industrial action at central Queensland mines.

QR Network said it took a conservative approach to estimating demand for coal haulage services in 2012-13, given the impact the aforementioned factors could be expected to have on the Queensland coal market.

QR Network has proposed a revised volume forecast of 186 mtpa for the central Queensland coal region for 2012-13. This estimate was based on taking the average of:

- (a) the 2011-12 volume forecast (i.e. 202 mtpa) that the Authority approved at this time last year; and

- (b) a re-estimated 2011-12 volume forecast based on extrapolating the actual railings at the end of February 2012 through to the end of June 2012 (i.e. 170 mtpa).

In its submission, Asciano argued that QR Network's derivation of its volume forecasts was not fully transparent and that the factors driving the significant reductions in the volume forecasts should be explained in further detail.

The Authority's Volume Assessment

While QR Network's revised volume forecasts for 2012-13 are higher than what can be expected to be hauled during 2011-12, they are significantly below the forecast for 2012-13 that was contained in the undertaking (i.e. 223.5 mtpa) and on which the reference tariffs had been calculated.

The Authority engaged Energy Economics to assess the veracity of QR Network's forecast railings for 2012-13. The Authority did so given the extent of the fall in the forecast volumes and the relatively unsophisticated methodology that QR Network had relied on to explain those revised forecasts. This review should also address Asciano's concerns about the factors driving the significant reductions.

In conducting its assessment, the Authority requested Energy Economics to pay particular attention to:

- (a) identifying the major factors likely to impact on QR Network's forecasts, in total and by system, including demand-side factors (e.g. growth forecasts in major coal importing countries and downstream importers of manufacturing goods) and supply-side factors (e.g. weather and industrial disputes); and
- (b) local conditions within mines, contracted tonnages, current and future issues affecting capacity, general market conditions and any issues related to port capacity and coal reserves.

Energy Economics undertook its analysis based on a number of key assumptions, including:

- (a) a normal wet season in Queensland for 2012-13 – noting that the Southern Oscillation Index has fallen in recent months, indicating an end to La Nina weather patterns;
- (b) limited on-going impact of historical flooding – noting that by late May 2012 no mines were discharging mine water into the Fitzroy Basin's rivers;
- (c) that industrial action currently constraining production at BMA mines will be resolved before the start of the 2012-13 fiscal year – but noting that railings may still be down until inventories are rebuilt to optimum working levels;
- (d) available annual port capacity at Abbot Point, Hay Point, Dalrymple Bay and Gladstone remains sufficient to cater for the expected tonnages – noting that historical information suggests this is a realistic assumption and that capacity margins are comfortable; and
- (e) major increases in coal production at a number of individual mines and major reductions at only two mines.

Based on its assessment, Energy Economics' forecast volume for the central Queensland coal network for 2012-13 was 182.8 mtpa. This estimate was 1.7% lower than QR Network's forecast of 186 mtpa (see Table 3 for details).

Table 3: QR Network and Energy Economics 2012-13 volume forecast (mtpa)^a

<i>System</i>	<i>QR Network</i>	<i>Energy Economics</i>	<i>Variance</i>
Blackwater	57.7	59.9	3.9%
Goonyella	99.0	93.0	-6.0%
Moura	13.5	12.8	-5.4%
Newlands	15.8	17.1	7.9%
Total	186.0	182.8	-1.7%

a. These forecasts exclude volumes on the Goonyella to Abbot Point Expansion.

Energy Economics said this difference was within the range of forecasting error. Energy Economics said its forecasts were weighted to the downside of the likely range, with higher volumes being contingent on Queensland's coal exporters recovering market share. Indeed, Energy Economics is cautiously optimistic about the prospects for 2012-13, forecasting a strong recovery in central Queensland coal railings from its estimate of 165.8 mtpa for 2011-12 to 182.8 mtpa for 2012-13.

On this basis, Energy Economics concluded that QR Network's forecast of central Queensland coal railings for 2012-13 was reasonable.

The Authority has taken Energy Economics' findings into account in assessing the reasonableness of QR Network's volume forecasts for 2012-13. In particular, the Authority notes that:

- (a) Energy Economics' underlying assumptions seem reasonable and credible;
- (b) the data sources used by Energy Economics appear valid and supportable; and
- (c) an appropriate level of detail has been provided to support the forecasts, on a whole of network basis, for each coal system and for individual mines.

Moreover, Energy Economics' volume forecasts for 2012-13 are within 2% of QR Network's forecast. The Authority has also placed some reliance on Energy Economics' comments that:

- (a) the difference between its forecasts and those proposed by QR Network are considered to be within the potential range of forecasting error; and
- (b) QR Network's forecast is reasonable.

The Authority notes that, while there is some consistency between the two forecasts at the region wide level, there is a larger disparity at individual coal system level. The Authority considers that this is not unusual as it might be expected as factors affecting specific mine or system volumes will be off-set by the circumstances or events occurring at other mines or systems. The level of uncertainty about forecasts at the individual mine or system level is therefore necessarily greater than at the level of the network as a whole. This is particularly the case for 2012-13 given the potential for industrial disputation at individual mine sites.

While these variances may have some impact on tariffs and the timing of QR Network's revenue stream in the short-term, it will not ultimately affect the net present value of those revenues given the role of the revenue capping mechanism.

The Authority will publish the Energy Economics report and this should address Asciano's concerns about the factors driving the lower volume forecasts.

Given the above, the Authority has accepted that QR Network's revised volume forecasts for 2012-13 are reasonable. The approved volume forecasts by month are detailed in **Table 8**.

1.6 Revised System Allowable Revenues and Reference Tariffs

As set out above, the Authority has reviewed the various inputs into QR Network's proposed 2012-13 volume reset and variation of reference tariffs application.

QR Network's proposed increase to its system allowable revenues for 2012-13, taking account of:

- (a) the incremental effect of non-revenue cap adjustments associated with MCI and CPI indices movement, as described earlier; and
- (b) a roll-forward of the revenue cap adjustment from 2010-11,

is set out in Table 4.

Table 4: System Allowable Revenue for 2012-13 (\$m)

<i>System</i>	<i>Current Approved 2012-13</i>	<i>Non-Revenue Cap Adjustment Amounts (inc MCI, CPI movements)</i>	<i>Revenue Cap Adjustment Amount*</i>	<i>Revised System Allowable Revenue 2012-13*</i>
Blackwater				
<i>Non-electric</i>	236.07	4.90	22.80	263.77
<i>Electric</i>	82.40	-0.73	24.51	106.19
Goonyella				
<i>Non-electric</i>	265.36	-4.81	-3.13	257.43
<i>Electric</i>	82.15	0.72	11.70	94.57
Moura	43.47	0.01	0.34	43.82
Newlands	31.32	0.01	3.23	34.56
Total Non-electric	576.23	0.11	23.24	599.58
Total Electric	164.55	-0.01	36.22	200.76
Grand Total	740.78	0.10	59.46	800.33

*revenue caps for 2012-13 incl. the revenue cap adjustment carried forward from 2010-11.

In terms of the roll-forward of the 2010-11 revenue cap adjustment, the Authority analysis has confirmed that QR Network has used the approved revenue cap adjustment (i.e. an under-recovery of \$49.17 million), rolled this forward at the approved weighted average cost of capital (WACC), i.e. 9.96%, and has accurately calculated the adjustment to the system allowable revenues for 2012-13 (i.e. an additional \$10.29 million).

The Authority has therefore accepted all of QR Network's proposed input assumptions and adjustments to non-revenue and revenue cap components of the system allowable revenues.

The Authority has also reviewed, and has confirmed that, QR Network has accurately converted these input assumptions into revised system allowable revenues for 2012-13, and for revised reference tariffs for 2012-13 (see **Table 5** for details).

By way of further explanation of some of the matters raised in this decision:

- (a) the impact of the operating and maintenance cost indexation, volume reforecast and revenue cap adjustment is set out in Table 6; and
- (b) the impact on tariffs of the different volume forecasts by Energy Economics and QR Network are set out in Table 7.

Table 5: Reference Tariffs for 2012-13

<i>System</i>	<i>AT₁</i>	<i>AT₂</i>	<i>AT₃*</i>	<i>AT₄*</i>	<i>AT₅</i>	<i>EC</i>
Blackwater	0.84	1,970.11	5.54	1.88	5.39	0.88
Goonyella	0.58	1,248.18	5.47	1.17	2.85	0.88
Moura	1.56	590.12	10.17	1.27		
Newlands	1.63	263.85	7.43	1.05		
Vermont	0.78	3,218.29	5.96	1.83	4.82	0.88
GVG	0.60	1,248.18	5.51	1.68	2.99	0.88
Discounts / Premiums						
Stanwell			(1.74)			
Rolleston			2.63			
Minerva			1.15			
Lake Vermont via Gladstone			0.49			

**AT₃ and AT₄ tariff components include the revenue cap adjustment carried forward from 2010-11.*

Table 6: Decomposition of the proposed tariff change for 2012-13 (\$/nt)

	<i>Original \$/tonnes</i>	<i>Non-Rev Cap Adjustments</i>	<i>Revenue Cap Adjustments</i>	<i>Total \$/tonnes (per original volume forecasts)</i>	<i>Proposed \$/tonnes (per new volume forecasts)</i>	<i>variance attributed to volume change</i>	<i>weighted avg increase – relative to all systems</i>
AT₂₋₄ (\$/nt)							
Blackwater	3.65	0.08	0.35	4.08	4.57	12%	4%
Goonyella	2.12	-0.04	-0.03	2.06	2.60	26%	8%
Moura	2.64	0.000	0.02	2.67	3.24	22%	1%
Newlands	1.79	0.001	0.18	1.97	2.18	11%	0.4%
Overall	2.58	0.00	0.10	2.68	3.22	20%	14%
AT₅ (\$/egtk)							
Blackwater	4.53	-0.04	1.35	5.83	5.36	-8%	-1%
Goonyella	1.99	0.02	0.28	2.29	2.87	25%	1%
Overall	2.77	0.00	0.61	3.38	3.80	13%	1%

Table 7: Comparison \$/tonne - Energy Economics and QR Network's forecast volumes

<i>AT₂₋₄ Comparison only</i>	<i>Revised System Allowable Revenue 2012-13 (\$m)</i>	<i>Energy Economics 2012-13 forecasts (mtpa)</i>	<i>\$/tonne</i>	<i>QR Network 2012-13 forecasts (mtpa)</i>	<i>\$/tonne</i>	<i>Variance \$/tonne</i>
Blackwater	263.8	59.9	4.40	57.7	4.57	-4%
Goonyella	257.4	93.0	2.77	99.0	2.60	6%
Moura	43.8	12.8	3.42	13.5	3.24	6%
Newlands	34.6	17.1	2.03	15.8	2.19	-7%
Total	599.6	182.77	3.28	186.01	3.22	2%

Table 8: Revised Monthly System Forecasts 2012-13

<i>Monthly System Gtk (‘000 gtk)</i>	<i>Blackwater</i>	<i>Goonyella</i>	<i>Moura</i>	<i>Newlands</i>
July 2012	2,911,339	2,920,495	337,866	312,009
August 2012	2,942,987	2,940,653	324,418	321,187
September 2012	2,740,288	2,951,804	307,384	306,571
October 2012	2,885,505	2,969,033	319,934	269,671
November 2012	2,676,230	2,813,165	323,060	315,272
December 2012	2,592,421	2,656,181	302,994	277,056
January 2013	2,593,251	2,643,929	322,104	299,715
February 2013	2,340,087	2,178,661	307,022	207,514
March 2013	2,706,720	2,395,735	325,536	273,417
April 2013	2,776,567	2,799,930	327,749	289,310
May 2013	2,931,585	2,953,256	343,064	308,658
June 2013	3,059,865	2,900,370	336,087	313,686