QUEENSLAND COMPETITION AUTHORITY

Draft Decision

QR Network 2009 Draft Access Undertaking

December 2009

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SUBMISSIONS

This report is a draft only and is subject to revision. Public involvement is an important element of the decision-making processes of the Queensland Competition Authority (the Authority). Therefore submissions are invited from interested parties concerning its assessment of QR Network's 2009 Draft Access Undertaking. The Authority will take account of all submissions received.

Written submissions should be sent to the address below. While the Authority does not necessarily require submissions in any particular format, it would be appreciated if two printed copies are provided together with an electronic version on disk (Microsoft Word format) or by e-mail. Submissions, comments or inquiries regarding this paper should be directed to:

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The **closing date** for submissions is 12 February 2010.

Confidentiality

In the interests of transparency and to promote informed discussion, the Authority would prefer submissions to be made publicly available wherever this is reasonable. However, if a person making a submission does not want that submission to be public, that person should claim confidentiality in respect of the document (or any part of the document). Claims for confidentiality should be clearly noted on the front page of the submission and the relevant sections of the submission should be marked as confidential, so that the remainder of the document can be made publicly available. It would also be appreciated if two copies of each version of these submissions (i.e. the complete version and another excising confidential information) could be provided. Again, it would be appreciated if each version could be provided on disk. Where it is unclear why a submission has been marked "confidential", the status of the submission will be discussed with the person making the submission.

While the Authority will endeavour to identify and protect material claimed as confidential as well as exempt information and information disclosure of which would be contrary to the public interest (within the meaning of the *Right to Information Act 2009 (RTI)*), it cannot guarantee that submissions will not be made publicly available. As stated in s187 of the *Queensland Competition Authority Act 1997* (the QCA Act), the Authority must take all reasonable steps to ensure the information is not disclosed without the person's consent, provided the Authority is satisfied that the person's belief is justified and that the disclosure of the information would not be in the public interest. Notwithstanding this, there is a possibility that the Authority may be required to reveal confidential information as a result of a RTI request.

Public access to submissions

Subject to any confidentiality constraints, submissions will be available for public inspection at the Brisbane office of the Authority, or on its website at www.qca.org.au. If you experience any difficulty gaining access to documents please contact the office (07) 3222 0555.

Information about the role and current activities of the Authority, including copies of reports, papers and submissions can also be found on the Authority's website.

PREAMBLE

In this Draft Decision, the Authority has sought to achieve an appropriate balance between the risks and rewards proposed by QR Network and the rights of QR Network and the users of QR Network's below-rail infrastructure. It is important to note that the elements of the Draft Decision are interdependent; a change to any one of them is likely to require complementary changes to others.

Price Issues

The Authority proposes to accept many of QR Network's proposals, including those that seek to reduce QR Network's risk, albeit in a modified form in many instances. Key examples are:

(a) measures to reduce QR Network's asset stranding risk, including:

  (i) accelerated depreciation for capital expenditure undertaken during the undertaking, with a maximum asset life of 20 years assumed for such expenditure; and

  (ii) up-front capital contributions for major capital expansion projects (essentially those exceeding $300 million);

(b) measures to reduce QR Networks cash flow volatility, including:

  (i) annual review of volume forecasts, which is intended to reduce the need for ex-post adjustments to the revenue cap; and

  (ii) annual adjustments to maintenance cost using a new maintenance cost index and to operating costs using the CPI.

The Authority also proposes to accept QR Network's proposal to amalgamate the various clusters in the Goonyella and Blackwater systems into a single cluster for each system.

However, the Authority has not accepted QR Network's proposals to increase its rate of return at the same time as reducing its risk. The Authority has reduced the asset beta from that proposed by QR Network (and from that adopted in the 2006 undertaking) given the risk mitigation measures proposed by QR Network and accepted by the Authority. This and a number of other adjustments see the cost of capital reduced to 9.41% from 11.76% proposed by QR Network. This compares with 8.43% approved for the 2005-09 undertaking period. In addition, the Authority has not accepted the proposed amalgamation of tariffs for the use of the Blackwater and Goonyella overhead electric infrastructure.

The Authority proposes to accept significant increases in capital expenditure and in maintenance and operating costs, albeit not to the levels proposed by QR Network:

(a) capital expenditure of around $1.2 billion has been included, compared to $640 million in the 2005 undertaking and $1.35 billion proposed by QR Network.

  The only capital expenditure proposal that has not been included in tariff calculations is that related to the Goonyella to Abbott Point Expansion (GAPE) project. This expenditure will be included in GAPE tariffs when they are proposed by QR Network;

(b) operating costs of $55.7 million per annum have been included. While this is lower than the $62.6 million per annum sought by QR Network, it represents a 43% increase over the amount provided in the current undertaking;

(c) maintenance costs of $136.5 million per annum have been provisionally included. This represents a 43% increase in the amount provided in the current undertaking. While this is substantially lower than sought by QR Network, much of the difference relates to the cost of ballast cleaning.

Ballast contamination has been an issue since at least the start of the 2001 undertaking. It appears that ballast contamination is an increasing problem in terms of traffic disruptions, environmental concerns and the costs of the maintenance program. The Authority has allowed for ballast cleaning at the level incurred per GTK by ARTC in the Hunter Valley but has given QR Network the opportunity to have the allowance increased if it is able to convince the Authority that its proposed approach is the most efficient available in a whole of system context.

Non Price Issues

The Authority has also accepted a number of the changes proposed to the non-price conditions in the undertaking, including:

(a) removing fees for the short term transfer of capacity rights; and

(b) removing the requirement to annually publish a master plan for the coal networks.

However, the Authority has not accepted, or has modified, a number of QR Network's non-price changes, including:

(a) the proposed relaxing of ring-fencing, for example, the handling of an access seekers confidential information; and

(b) proposals for allocating capacity and imposing access conditions (e.g. underwriting capital expenditure) for major projects; and

(c) early termination of the undertaking, including for a change in ownership.

Tariffs

The proposals outlined earlier result in an increase in tariffs of 34% overall in central Queensland and 42% in the western system.

Way Forward

The Authority has set out clearly what it requires QR Network to do to resolve the issues identified by stakeholders and the Authority. This is to facilitate QR Network's prompt response.

The Authority understands that QR Network is likely to withdraw the 2009 DAU as it currently stands in February 2010, and submit a replacement 2009 DAU. The Authority nevertheless considers that stakeholders should still submit their views or concerns on this draft decision to the Authority on or before the deadline of 5 pm Friday, 12 February 2009. Indeed, the earlier submissions are made, the more likely it is that QR Network will be mindful of these views as it prepares its replacement DAU.

To assist in this regard, the Authority requests that stakeholders make specific comments or proposals, avoiding comment of a general nature. The Authority also stresses that, while this Preamble provides an outline of the Authority's draft decision on QR Network's 2009 DAU, it should not be read as a substitute for the detail contained in the draft decision.

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GLOSSARY

2008 undertaking	QR Network's 2008 undertaking
ABS	Australian Bureau of Statistics
AER	Australian Energy Regulator
ARTC	Australian Rail Track Corporation
ASX	Australian Securities Exchange
ASX-AOI	Australian Securities Exchange Accumulation All Ordinaries Index
BMA	BHP Billiton Mitsubishi Alliance
Bp	basis point
BRTT	Below-rail transit time
CAPM	Capital Asset Pricing Model
CCC	Common cost contribution
CPI	Consumer price index
CQCR	Central Queensland coal region
DAU	Draft access undertaking
DAAU	Draft amending access undertaking
DBCCB	Dalrymple Bay coal chain board
DBCT	Dalrymple Bay coal terminal
DORC	Depreciated Optimised Replacement Cost
egtk	Electric gross tonne kilometre
ERA	Economic Regulation Authority
GAPE	Goonyella-Abbot Point Expansion
gtk	gross tonne kilometre
IAP	Indicative access proposal
ISR	Industry Special Risk (insurance policy)
MCI	Maintenance cost index
MRP	Market risk premium
mtpa	Million tonnes per annum

nt	net tonne
ntks	net tonnes kilometres
QCA Act	Queensland Competition Authority Act 1997
QR	Queensland Rail, or QR Ltd
QRNA	QR Network Access
QR Services	Unless otherwise specified, refers both to QR Services, and to QR Ltd's Infrastructure Services Group, before the division was renamed QR Services
QRC	Queensland Resources Council
QTC	Queensland Treasury Corporation
rtp	reference train path (multiplier)
RAB	Regulatory asset base
SBR	Surat Basin railway
SWR	System-wide and regional
TI Act	Transport Infrastructure Act 1994
UT2	Undertaking 2 (Access Undertaking 2005 or 2006)
UT3	Undertaking 3 (Access Undertaking 2009)
WACC	Weighted average cost of capital
WICT	Wiggins Island coal terminal

1. QR NETWORK'S COAL REFERENCE TARIFFS

QR Network's 2009 draft access undertaking (2009 DAU) includes reference tariffs for coal-carrying train services operating on the central Queensland and Western coal systems. The proposed central Queensland reference tariffs are, on average, 50% higher than the tariffs that currently prevail while the proposed Western System tariffs are, on average, 85% higher.

The Authority has assessed the underlying elements of QR Network's proposed central Queensland coal tariffs, including the opening asset value, proposed capital expenditure, rate of return (weighted average cost of capital (WACC)), volume forecasts and operating and maintenance costs.

Since QR Network submitted the 2009 DAU, the Authority has approved $251 million in capital expenditure for 2007-08 and revenue cap shortfalls of $43.6 million and $32.9 million in 2007-08 and 2008-09 respectively. These factors have the effect of increasing the tariffs by a further 20% on those proposed in the 2009 DAU – resulting in a proposed increase of around 70% on current tariffs.

With respect to QR Network's proposal, the Authority considers that QR Network has not justified its claim for a WACC of 11.76%. The Authority's proposed WACC of 9.41% is equivalent to a 10.1% return on equity and includes a 480 basis point equity margin and a 343 basis point debt margin.

The Authority also considers that QR Network has not justified its claims for a 99%[1] increase in maintenance costs and a 59% increase in operating costs. In particular, the Authority is not convinced that QR Network's claim in respect of coal fouled ballast has been appropriately justified. The Authority considers increases of 43% and 43% respectively are appropriate especially given the expenditure on major program maintenance. Nor does the Authority consider it appropriate that no efficiency gains be expected over the term of the undertaking. The Authority therefore has proposed an X-factor of 25% on the indexation that would otherwise apply to maintenance and operating costs to account for productivity gains.

Consequently, the Authority proposes reference tariffs for coal-carrying train services that are around 10% below those proposed by QR Network. That is, the Authority is proposing reference tariffs that reflect, on average, a 33% increase on current tariffs.

The Authority is also proposing to reject the proposed 85% increase to coal tariffs on the western system. The Authority believes that a 40% increase is justified based on the coal traffics share of the common costs of that network – a decision which still results in the highest coal tariffs in Queensland on a dollar per net tonne basis.

1.1 Central Queensland Coal Reference Tariffs

QR Network's 2009 DAU includes reference tariffs for coal-carrying train services in the central Queensland coal region for the period 2009-10 to 2012-13 based on a range of factors, including:

(a) an opening asset value and depreciation for each system which reconciles with the opening asset value used to determine the 2006 approved reference tariffs;

(b) a capital expenditure provision of $1.35 billion over the four years from 2009-10 to 2012-13;

[1] The percent differences are based on comparing the four year UT2 allowance with the four year UT3 allowance (in 2009-10 dollars).

(c) a WACC of 11.76%, that represents a 333 basis point increase on the WACC approved for the 2006 undertaking;

(d) forecast annual inflation of 2.8%;

(e) maintenance and operating costs that average around $192 million and $72 million over the four years from 2009-10 to 2012-13; and

(f) volume forecasts that increase from 221 million tonnes in 2009-10 to 231 million tonnes in 2012-13, later revised to 178 million tonnes in 2009-10 to 226 million tonnes in 2012-13.

The combined effect of these claims is to increase reference tariffs by around 50% for users over the next regulatory period, excluding the effect of major expansions that may occur during the 2009 DAU period, such as the Goonyella to Abbot Point Expansion (GAPE) and the rail infrastructure associated with the Wiggins Island coal terminal and the Surat Basin railway.

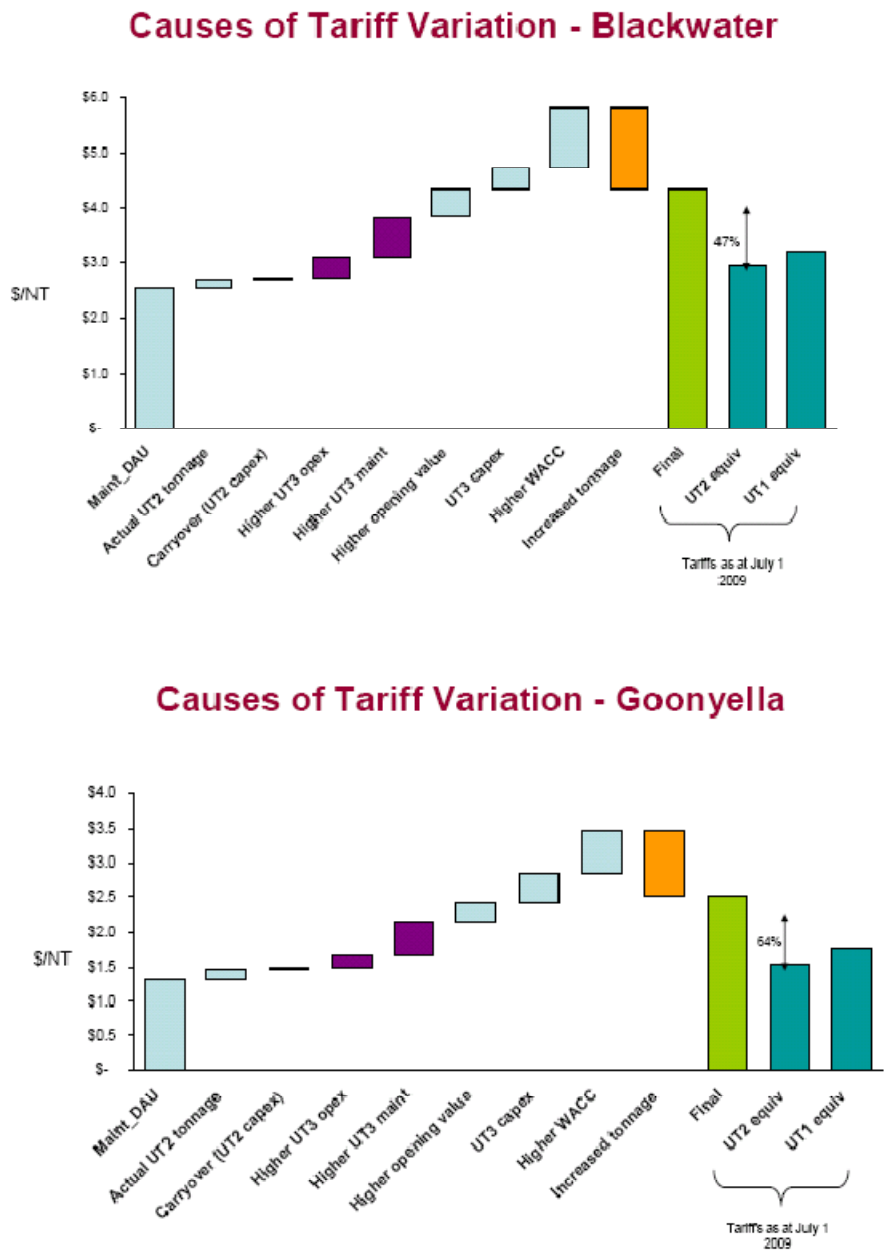
Some of the factors driving the tariff increases are largely non-discretionary. For instance, capital works have played a significant part in these tariff rises, with the asset base for the central Queensland coal network having grown from $2.4 billion to $3.3 billion over the life of the 2006 and 2008 undertakings. Also, QR Network has proposed a further $1.3 billion in capital expenditure over the life of the 2009 DAU – of which around 85% has already been pre-approved through the customer vote process.

However, other factors are more discretionary. For example, almost 60% of the proposed tariff increase is due to QR Network's proposed increase in the WACC, from 8.43% for the 2006 undertaking to 11.76% in the 2009 DAU. That is, tariffs would rise by around 21% (not 50%) if the WACC remained unchanged from the 2006 undertaking.

In addition, QR Network has proposed a 99% increase maintenance costs over the term of the 2009 DAU (compared to the 2006 and 2008 undertakings) and to reduce to 20 years the asset life for capital expenditure incurred since the start of the 2005-06 undertaking.

QR Network set out the impact of the individual factors on the proposed tariffs (Figure 1.1) with the single largest impact being the proposed increase in WACC.

Figure 1.1



The Authority considers each of the QR Network's coal reference tariffs claims in turn in section 1.2 to 1.12.

1.2 Opening Asset Value – Central Queensland Coal Region

The 2008 access undertaking requires QR Network to seek the Authority's approval for capital expenditure on projects completed in the previous year and to annually roll-forward its regulatory asset base. These arrangements were introduced into the 2006 undertaking to simplify the assessment of asset values for future undertakings.

QR Network's Proposal

In its 2009 DAU, QR Network proposed an opening asset value of $3.28 billion for the next regulatory period based on:

(a) actual data to account for:

  (i) the then most recently approved asset base roll-forward of $2.7 billion as at 30 June 2007;

  (ii) deleting $9.3 million in 'system-wide' assets that had been retained by QR Ltd following the QR restructure in September 2009; and

  (iii) inflation of 5.12% in 2007-08;

(b) forecast data and assumptions to account for:

  (i) forecast capital expenditure of $275 million and $289 million for 2007-08 and 2008-09 respectively;

  (ii) forecast initial asset values for the Minerva and Lake Vermont spurs of $75.4 million and $64.0 million respectively;

  (iii) depreciating the forecast 2007-08 and 2008-09 capital expenditure on an assumed 35 year asset life; and

  (iv) forecast inflation of 2.8% in 2008-09[2].

Since its submission of the 2009 DAU, QR Network has indicated to the Authority that it believed a revised opening asset value of $3.35 billion would be more appropriate given that aspects of its forecasts can now be updated for either actual data or more recent forecasts. These revisions include:

(a) a roll-forward of the asset value to $2.96 billion as at 30 June 2008 as approved by the Authority in August 2009, including:

  (i) $251 million in capital expenditure for 2007-08; and

  (ii) $75.4 million opening asset value for the Minerva spur;

(b) $469 million for forecast capital expenditure for 2008-09 (including $57.2 million for the Lake Vermont spur); and

(c) actual CPI for 2008-09 of 2.019%.

Table 1.1 provides details of this revised opening asset value.

QR Network has also proposed a specific provision to allow future reference tariffs to be adjusted if the actual capital expenditure in 2008-09 differs from the forecast amount it has used.

[2] While QR Network's submission states that an assumed rate of 2.5% inflation has been used in 2008-09, its financial model uses an assumed rate of 2.8%.

Stakeholder Comments

While stakeholders did not comment on QR Network's proposed opening asset value, the QRC requested the Authority to review QR Network's treatment of system-wide assets and the charging arrangements for these assets going forward.

In particular, the QRC was concerned that QR Network may have an incentive to transfer more assets to other QR business groups in order for the QR Group, as a whole, to receive greater profits:

> *'If charges for the use of the transferred asset (which QR Network proposes to recover through future operating costs) include the proposed cost plus a margin to apply to 'external' QR Network services, then this would provide QR Network with an incentive to transfer all assets to related parties in order to receive an inflated profit for the overall net benefit of the QR Group'. (QRC, sub. no. 38: 60).*

Asciano made similar comments as it was concerned about QR Network's intention to transfer assets required for the delivery of declared services to related QR bodies. Asciano suggested that the Authority should get QR Network to justify 'asset transfers and, if there are legitimate reasons, ensure that network users are in no way made worse off' (Asciano, sub. no. 33: 45).

Table 1.1 : QR Network's Central Queensland Coal Region Asset Base Roll-forward ($'000)

System	*2005-06*	*2006-07*	*2007-08*	*2008-09*	*Total*
Blackwater					
Opening Asset Value	808,061	888,290	948,561	1,058,515	
Capital Expenditure	78,966	73,578	101,514	145,822	
Inflation	35,015	23,684	48,960	22,836	
Depreciation	(33,752)	(36,990)	(40,521)	(46,302)	
Closing Asset Value	888,290	948,561	1,058,515	**1,180,871**	
Removal of system-wide assets					*(3,652)*
UT3 Opening Asset Value					**1,177,219**
Goonyella					
Opening Asset Value	807,954	854,763	896,652	1,035,127	
Capital Expenditure	50,278	60,573	137,410	263,264	
Inflation	34,424	22,660	46,275	23,544	
Depreciation	(37,892)	(41,344)	(45,211)	(53457)	
Closing Asset Value	854,763	896,652	1,035,127	**1,268,477**	
Removal of system-wide assets					*(3,804)*
UT3 Opening Asset Value					**1,264,674**
Moura					
Opening Asset Value	223,155	227,025	249,663	257,100	
Capital Expenditure	1,712	24,139	2,962	821	
Inflation	9,259	6,121	12,854	5,199	
Depreciation	(7,101)	(7,622)	(8,380)	(8,599)	
Closing Asset Value	227,025	249,663	257,100	**254,520**	
Removal of system-wide assets					*(1,060)*
UT3 Opening Asset Value					**253,460**
Newlands					
Opening Asset Value	157,415	158,421	156,837	167,590	
Capital Expenditure	291	310	8,982	2,040	
Inflation	6,512	4,061	8,255	3,404	
Depreciation	(5,798)	(5,956)	(6,483)	(6,866)	
Closing Asset Value	158,421	156,837	167,590	**166,169**	
Removal of system-wide assets					*(745)*
UT3 Opening Asset Value					**165,424**
Rolleston					
Opening Asset Value	251,900	251,873	247,674	249,158	
Capital Expenditure	-	-	-	-	
Inflation	6,894	6,450	12,677	5,031	
Depreciation	(6,922)	(10,648)	(11,193)	(11,419)	
Closing Asset Value	251,873	247,674	249,158	**242,769**	
UT3 Opening Asset Value					**242,769**
Vermont					
Opening Asset Value				-	
Capital Expenditure				57,229	
Inflation				479	
Depreciation				(1,202)	
Closing Asset Value				**56,505**	
UT3 Opening Asset Value					**56,505**
Minerva					
Opening Asset Value			75,434	76,397	
Capital Expenditure			-	-	
Inflation			3,861	1,542	
Depreciation			(2,898)	(2,956)	
Closing Asset Value			76,397	**74,984**	
UT3 Opening Asset Value					**74,984**
Hail Creek					
Opening Asset Value	108,761	113,679	113,444	115,943	
Capital Expenditure	3,387	-	-	-	
Inflation	4,565	2,911	5,807	3,341	
Depreciation	(3,034)	(3,147)	(3,308)	(3,375)	
Closing Asset Value	113,679	113,444	115,943	**114,909**	
UT3 Opening Asset Value					**114,909**
System-wide assets (removal)					*(9,261)*
CQCR Opening Asset Value					**$3,350,944**

Authority's Analysis and Draft Decision

The Authority has reviewed QR Network's detailed financial model, including the updated model with the more current information, and has found that QR Network has appropriately determined the opening asset value for the CQCR as at 1 July 2009, in that it has accurately:

(a) used the approved methodology set out in the current undertaking to determine individual elements of the asset base roll-forward;

(b) relied on past approaches and / or information approved by the Authority, including the updated information in relation to capital expenditure for 2007-08 and the approved asset value for the Minerva spur; and

(c) applied the correct CPI for 2008-09.

While QR Network's capital expenditure claim of $412 million for 2008-09 has not yet been approved by the Authority, the Authority accepts it is reasonable to use a revised forecast amount to determine the opening asset value at this time. In this regard, there is a proposed mechanism to account for any variance in the approved 2008-09 capital expenditure amount. In any event, it is likely that the approved amount will be known by the time of the Authority's final decision.

Importantly, this does *not* imply Authority's acceptance of this expenditure, rather it is the best forecast of the 2008-09 capital expenditure available at this time.

However, the Authority notes that $44.4 million of QR Network's 2008-09 capital expenditure relates to feasibility studies for the Goonyella to Abbot Point Expansion (GAPE) project. QR Network has indicated that it has not included reference tariffs, forecast capital expenditure and volumes associated with the GAPE project into the 2009 DAU because the final costs of GAPE remain highly uncertain. QR Network has also previously indicated that it is considering a range of possible pricing options, some of which involve sharing some of the costs of the GAPE project with Goonyella train services.

QR Network indicated that, once the costs associated with GAPE can be confirmed with certainty, reference tariffs for GAPE train services will be submitted in a draft amending undertaking (QR Network sub. no. 11: 5 & 27).

The Authority therefore believes it is premature to include the $44.4 million into either the Goonyella or Newlands systems' asset bases until such time that the arrangements associated with the pricing of the GAPE project has been approved by the Authority. Until that time, the $44.4 million for the feasibility studies will be rolled-forward at the approved WACC rate.

On this basis, the Authority accepts incorporating $368 million of forecast capital expenditure for 2008-09 into the roll-forward calculations for determining tariffs of existing clusters and $44 million will be rolled forward for possible inclusion in future GAPE tariffs.

The Authority also notes the QRC's and Asciano's comments on QR Network's treatment of system-wide assets.

The Authority considers that it is reasonable for QR Network to remove system-wide assets from its regulated asset base if those specific assets have been retained by QR Ltd.

Accordingly, the Authority's draft decision is to approve QR Network's (updated) opening asset value of $3.35 billion, but that reference tariffs be calculated on the asset base after excluding the $44.4 million associated with the capital expenditure in 2008-09 for GAPE.

1.3 Weighted Average Cost of Capital

Overview of QR Network's Proposal

QR Network's 2006 undertaking provided a nominal, post-tax 'vanilla' WACC of 8.43% that was comprised of a return on debt of 6.64% and a return on equity of 10.61%. As the risk-free rate at that time was 5.21%, these returns provided QR Network with debt and equity margins of 143 and 540 basis points (bp) respectively.

In its 2009 DAU, QR Network has reassessed its WACC through a 'bottom-up' review of the individual WACC parameters. In doing so, QR Network received advice on the return on equity from Synergies Economic Consulting (Synergies) and advice on the risk-free rate, capital structure and debt margin from Competition Economists Group (CEG).

QR Network's proposed WACC of 11.76% is based on a simulation approach that relied on a range of values for key WACC parameters and point estimates for others (see Table 1.2).

Table 1.2 : WACC Parameters, QR Network's proposal

Parameter	*QR 2002*	*QR 2006*	*QR Proposal 2009*	*QR Proposal 2009 (lower bound)*	*QR Proposal 2009 (upper bound)*
Credit rating	A-	BBB+	BBB+	BBB+	BBB+
Risk-free rate	5.97%	5.21%	6.70%	6.70%	6.70%
Risk-free rate premium			0.45%	0	0.60%
Market Risk Premium	6.00%	6.00%	6.75%	6.00%	7.00%
Asset beta	0.45	0.5	0.58	0.5	0.6
Gearing (debt %)	55%	55%	55%	55%	55%
Equity beta	0.76	0.9	1.07	0.89	1.11
Gamma (franking credit benefit)	0.5	0.5	0.13	0.5	0
Equity Margin	4.56%	5.40%	7.67%	5.34%	8.37%
Cost of Equity	**10.53%**	**10.61%**	**14.37%**	**12.04%**	**15.07%**
Debt margin	1.20%	1.30%	2.80%	2.80%	2.80%
Debt transaction costs	0	0.13%	0.16%	0.16%	0.16%
Total Debt Margin	1.20%	1.43%	2.96%	2.96%	2.96%
Cost of Debt	**7.17%**	**6.64%**	**9.66%**	**9.66%**	**9.66%**
WACC Margin	2.71%	3.21%	5.08%	4.03%	5.39%
WACC	**8.68%**	**8.43%**	**11.76%**	**10.73%**	**12.10%**

[a] *The risk-free rate is averaged over the 20 days preceding 23 June 2008 and the debt margin is as at that date.*

Based on these inputs, QR Network constructed a WACC distribution with lower and upper bounds of 10.73% and 12.10% respectively. QR Network selected a WACC of 11.76%, which was at the 75th percentile of the distribution. QR Network justified this on the basis of the uncertainty surrounding WACC estimation and the adverse consequences of under-estimating the true WACC value (QR Network, sub. no. 11: 90-91).

While QR Network proposed a return on debt of 9.66%, it did not propose a return on equity. However, an estimate of around 14.3% can be inferred given QR Network's proposed WACC (11.76%), return on debt (9.66%) and gearing (55%).

The equity margin is around 765 basis points, which is 40% higher than the margin of 540 basis points that the Authority provided in its 2006 decision.

In support of this proposal, QR Network argued that its investment risk profile has changed since its last regulatory review given the anticipated increase in its proposed capital expenditure program. QR Network submitted that it faces a $1 billion plus capital expenditure program over the coming regulatory period. QR Network noted that this excludes multi-billion dollar investments in rail infrastructure associated with the GAPE project, the Surat Basin Railway (SBR) and the Wiggins Island Coal Terminal (WICT) and is in addition to $857 million that will have already been spent over the term of the 2006 undertaking (QR Network, sub. no. 11: 36).

QR Network submitted that this investment program will deliver significant benefits to customers and the wider economy (QR Network, sub. no. 11: 37-38).

Moreover, QR Network believes that, while short to medium term demand forecasts for Queensland coal remain favourable, there is more uncertainty over long term demand – in particular in relation to government environmental / climate change policies (e.g. carbon emissions trading) and technological change (e.g. pulverised coal injection) (QR Network, sub. no. 11: 31-32).

QR Network was, therefore, particularly concerned about its asset stranding risks which are not addressed by the more shorter term risk mitigation measures (e.g. approvals processes for capital expenditure) that had been included in the 2006 undertaking (QR Network, sub. no. 11: 37).

QR Network submitted that it had a number of options to address this asset stranding risk, two of which it dismissed, namely:

(a) eliminate the risk by passing it to third parties – which was not necessarily efficient as customers are no better placed to manage this risk than QR Network; and

(b) avoid the risk entirely – while possible for new investments, this option is not viable for existing assets.

Nevertheless, QR Network accepted two other options to address this asset stranding risk, namely:

(a) compensation via prices through a cash flow or WACC adjustment (see asset/equity beta section below); and

(b) reduction in the risk through accelerated depreciation (see section 1.7).

Conversely, Asciano and the QRC argued that these risk matters have been addressed elsewhere within the regulatory framework and should not require compensation through an uplift to the WACC.

Asciano stated that the asymmetric investment risk included by QR Network (which is not quantified by QR Network anywhere in its submissions) is already compensated through the introduction of truncated asset lives and therefore accelerated depreciation. (Asciano, sub. no. 33: 46)

The QRC argued that the Queensland coal industry has a strong long term future (QRC, sub. no. 38: 61) and that, while QR Network has systematically reduced its risks, there has been no reduction in its WACC. For example, the QRC noted that, in recent years, QR Network's risks have been reduced by, *inter alia*:

(a) establishing a revenue cap to address volume risk;

(b) establishing a regulatory pre-approval mechanism regarding the prudency of the scope of capital expenditure to address asset optimisation risk;

(c) significantly strengthening of take-or-pay arrangements and relinquishment fees to address asset stranding risk; and

(d) increasing imposition of special access conditions to reduce volume risk and asset stranding risk (including, in the case of the Western system, underwriting of main line capital expenditure) (QRC, sub. no. 38: 61).

The QRC stated that, as a result of these measures, QR Network is now in the position of being substantially insulated from the risks of the industry in which it operates as well as the risks arising from its own performance.

The QRC submitted that QR Network has now submitted an additional package of measures to further reduce its asset risk, including, *inter alia*:

(a) accelerating depreciation of all new capital expenditure;

(b) imposing special access conditions for 'major projects';

(c) offering preference to access seekers who offer longer term access agreements (beyond the current 10 year term which access seekers must offer in order to protect a place in the queue);

(d) combining Blackwater and Goonyella electric assets, partly to address stranding risk regarding Blackwater electric assets; and

(e) uplifting the WACC to reflect increased asset stranding risk (QRC, sub. no. 38: 63).

In summary, the QRC concluded that:

> *. . . does not have a particular view as to whether QR Network should be a very low risk business or should accept a higher level of risk. We do however, have a strong view that risks and rewards must be linked, and that if the systematic process of removing risks is allowed to continue, that this must be reflected in the assessment of QR Network's WACC (QRC, sub. no. 38: 61-63).*

While the QRC did not propose a specific WACC, it suggested an estimation methodology based on:

(a) adopting the 2006 undertaking's WACC of 8.43% (i.e. the upper end of the plausible range);

(b) updating this WACC based on changes in time-variant WACC parameters (e.g. the risk-free rate and debt margin); and

(c) adjusting either the gearing or beta to reflect the risk reduction achieved by QR Network since the December 2005 decision.

The QRC submitted that this approach would provide QR Network with a WACC that is at the upper end of a plausible range and would provide the necessary incentives to invest. The QRC noted that, in contrast, QR Network has adopted this upper end estimate as a lower bound despite the fact that it is now proposing new and significant risk reduction measures (QRC, sub. no. 38: 63-64).

The Authority accepts the arguments presented by both QR Network and the QRC that any assessment of the WACC should be in the context of the risks faced by QR Network. Some of the risk reduction measures proposed by QR Network appear to be unrelated to covariance risk, (e.g. long term asset stranding) and are, therefore, not normally reflected in WACC estimates.

However, in its December 2005 decision, the Authority provided an uplift to the asset/equity beta to address the investment risks faced by QR Network. The Authority has reconsidered the reasonableness of this uplift in the context of the additional risk reduction measures proposed by QR Network in the 2009 DAU.

Other risk reduction measures will further reduce the covariance between QR Network's returns and the market. These measures too are considered in the context of the Authority's assessment of QR Network's proposed asset/equity beta.

It is also relevant to note that, since submitting the 2009 DAU, the assessment of WACC has been informed by both the impact of the global financial crisis and by the Australian Energy Regulator's (AER's) final decision on WACC parameters for electricity transmission and distribution entities.

In the case of the global financial crisis, QR Network's submitted risk free rate and debt margin estimates in particular are no longer relevant, as they are now out of date. In the intervening period, the 10-year risk-free rate has declined by around 112 bp which has been more than offset by a 130 bp increase in the 10-year debt margin.

The AER's final decision on WACC parameters has resulted in it accepting (i) an increase in gamma from 0.5 to 0.65; (ii) an increase in the market risk premium from 6.0% to 6.5%; and (iii) a decrease in the equity beta from 1.0 to 0.80.[3] This decision is relevant to the Authority's decision on QR Network's WACC as the electricity transmission and distribution companies are key benchmark comparators for QR Network's coal infrastructure given their similar regulatory environment.

Risk-free Rate

The Authority's practice to date has been to use the promised yield on 10-year Australian Commonwealth government nominal bonds to proxy the risk-free rate in the CAPM.

QR Network's Proposal

QR Network has proposed a risk-free rate of 6.70% based on the yields of 10-year Commonwealth Government nominal bonds over the 20 days to 23 June 2008. In addition, QR Network proposed an uplift of 45 bp to the risk-free rate in the cost of equity component on the basis that these bond yields are currently biased downward, due in part to a recent 'flight to quality' (e.g. to safer financial products) driven by the global financial crisis[4].

Stakeholders' Comments

Several stakeholders expressed concern with the Authority's standard practice of fixing the risk-free rate to apply for the entire regulatory cycle, without it being reset in the interim. These concerns appear to be driven in large part by the recent global financial crisis. In this context, stakeholders proposed two alternatives to estimating the risk-free rate:

[3] The equity beta of 1.0 was previously given to the transmission networks and to the distribution networks in NSW, ACT and Victoria, while an equity beta of 0.90 was given to the Queensland, Tas and SA distribution networks.

[4] CEG note that the same adjustment is not required to the risk-free rate component of the cost of debt. This follows from the fact that the estimate of the debt margin will be too high by the amount of the convenience yield, while the risk-free rate will be too low by the same amount. Therefore, when summing the risk-free rate to the debt margin to obtain the total cost of debt, the two amounts cancel out.

(a) the QRC has argued for an annual reset of the time-variant WACC parameters (i.e. the risk-free rate and debt margin) (QRC, sub. no. 38: 64); and

(b) the QTC proposed updating 20% of the risk-free rate and debt margin each year over a five-year regulatory period (QTC, sub. no. 39: 2).

Authority's Analysis and Draft Decision

In the past, the Authority has estimated the risk-free rate, and the debt margin, with reference to the yield on the 10 year Commonwealth Government bond.

This approach has been based on regulatory precedence where regulators had accepted the argument that the term of the bond should be a proxy for the life of the asset.

At the same time, however, the Authority has questioned this approach on the basis that it will tend to over- or under-compensate the regulated business depending on the term structure of bond yields. As a result, it has been argued that the risk-free rate should be set with reference to the length of the regulatory period. This view is supported on the basis that a bond with a term that matches the regulatory cycle satisfies the fundamental principle of regulation, which is that the net present value of the future cash flows of the firm should equal the initial investment (i.e. the 'NPV = 0' principle) (Lally 2004, Lally 2007(a)). This principle is equivalent to the regulated price covering should cover all costs including the cost of capital and is uncontroversial.

In the context of the risk-free rate, the most important aspects of satisfying this principle are:

(a) using a risk-free rate within the *cost of equity* that matches the regulatory cycle (i.e. five years or closest) and applying the current rate;

(b) using a risk-free rate within the *cost of debt* that matches the regulatory cycle (i.e. five years or closest) and applying the current rate; and

(c) using a debt premium within the cost of debt that matches the regulatory cycle (i.e. five years or closest) and applying the current rate.

This approach was initially supported by the AER in its review of WACC parameters for electricity transmission and distribution. However, in its May 2009 final decision the AER moved away from its draft decision on the basis that, *inter alia*, the regulated businesses do not appear to be able to hedge the debt premium component of the cost of debt.

The Authority considers that the need to hedge the debt premium component stems from a strategy of using borrowings which have an average term in excess of the regulatory period and using the hedge market in an attempt to match the interest rate exposure with the regulatory period. Using borrowings which have a term that closely matches the regulatory term will avoid this mismatch, and potential risk, provided that the costs of refinancing debt are adequately met. The Authority considers that the uplift to the debt margin is reasonable in this regard. The actual debt financing and hedging strategy adopted is of course a matter for the individual regulated businesses.

While in the past the Authority has recognised the appropriateness of seeking to benchmark the risk free rate on the basis of a bond with a term that is equivalent to the term of the undertaking, it has not chosen to do so. However, on this occasion the difference between setting the risk free rate and the debt margin on the basis of 10 year and 5-year bonds is material. In these circumstances, the Authority does not consider that it is reasonable to set aside the in principle arguments in support of setting the risk-free rate and debt margin with reference to a 5-year bond.

In relation to QR Network's proposed uplift of 0.45% to the cost of equity, the Authority considers that QR Network's arguments are not convincing. The claimed 'bias' is a reflection of the change in the supply and demand for government bonds, and such price (and yield) changes are consistent with the CAPM. Moreover, QR Network has not demonstrated that its proposed alternative proxy is superior to government bonds as a measure of the risk-free rate.

The Authority has also decided to not adopt either of the two proposals to annually update the risk-free rate over the term of the undertaking. First, the Authority considers that the QRC's preferred approach of annually updating the risk-free rate and debt margin is equivalent to a one-year regulatory reset, and the Authority does not support such an approach at this time. Second, the Authority considers that the QTC 'cyclical averaging' proposal is deficient as it appears to favour simultaneously using a 10-year risk-free rate with an assumed debt roll-over of 20% per year. However, figure of 20% per year implies a 5-year debt term and therefore, a 5-year risk-free rate and this is inconsistent with its proposal for a 10-year risk-free rate.

Market Risk Premium

The market risk premium (mrp) is the expected rate of return on the market portfolio of risky assets. In past undertakings, the WACC has been based on a market risk premium of 6.0%.

QR Network's Proposal

For the 2009 DAU, QR Network has proposed a range of 6.0%-7.0% for the mrp (QR Network, sub. no. 11: 81-83), with a point estimate of 6.75% being consistent with its submitted WACC.

The mrp submitted by QR Network is based on work by Synergies. Synergies reviewed a selection of studies that estimated the premium based on historical averaging of ex post annual market returns over the Commonwealth government bond rate. To improve statistical reliability of the estimate, it placed a greater reliance on estimates from data series of longer than thirty years. Synergies indicated that this material suggested that the mrp lay in a range from 6.0%-7.0%. QR Network set aside surveys of financial experts that suggested that the mrp lay at the low end of a range on the basis that such surveys were likely to produce unreliable estimates (QR Network, sub. no. 11: 81-83).

Stakeholders' Comments

Stakeholders did not comment on this specific aspect of WACC.

Authority's Analysis and Draft Decision

Estimating the mrp is problematic. There are a range of estimation methodologies which have different characteristics. In principle, the mrp should be forward-looking to be consistent with the CAPM. However, mrp estimates have generally relied on historical time series and often very long time series given the standard errors in the estimates. This questions the reliability of such estimates, as markets today are significantly different to markets, say, 100 years ago (e.g. information availability and transactions costs). Also, certain estimation techniques are known to have particular and significant biases.

In considering this matter, the Authority relied on a range of techniques to estimate the mrp (Lally, 2004):

(a) *Ibbotson historical averaging (6.99%)* – the average of the annual excess of market returns over the government bond rate;

(b) *Siegel historical averaging (5.27%)* – historical averaging that adjusts the estimate for the effects of unanticipated inflation;

(c) *Merton method (6.2%)* – historical approach that relates the CAPM risk-reward ratio to Australian market variance;

(d) *Cornell method (5.68%)* – forward-looking approach where short term forecasts of the growth rate in earnings per share converge upon the forecast long-run GDP growth rate over time;

(e) *discounted dividends model (3.66%)* – forward-looking approach where expected growth rates in earnings per share for all future years are assumed to be equal and convergence is immediate; and

(f) *surveys (6.0%)* – forward-looking approach that samples the opinions of financial economists or practitioners for an estimate of the expected premium.

This evidence provides a range from 3.66%-6.99%, with a median of 5.84%, and an average of 5.63%. However, in interpreting these results, it is noted that the Authority placed less weight on:

(a) the Merton methodology given its very high standard error; and

(b) the discounted dividends model, as it is a more limited version of the Cornell method.

In addition, the Authority interprets Ibbotson estimates with significant caution, as they tend to be biased upward for a number of reasons. For example, Siegel (1992) estimates that this bias is in the range of 150-250 basis points due to unanticipated inflation lowering the real returns on government bonds but not the real returns on equities. Also, another source of bias is 'survivorship bias', as historical estimates are based on data from markets that have 'survived', implying the sample average is greater than the population value. This source of bias affects the Ibbotson, Siegel and Merton estimates (Brown et al, 1995).

Importantly, it is also noted that the Cornell estimate is an *upper bound* on the mrp because the short run forecasts of the growth rate in earnings per share are for existing shares in existing companies whereas the long-run GDP growth rate forecast is appropriate for all shares in all current and future companies; this upper bound ranges from 4.89% to 6.48%, with a mid-point of 5.68%.

On the basis of this information, the Authority concludes that an mrp estimate of 6.0% is reasonable.

An mrp estimate of 6.0% is also consistent with past regulatory practice in Australia and is in excess of that provided by regulators overseas. For example, U.S. regulators have tended to set the mrp between 5.0% to 6.0%, and UK regulators have tended to set the mrp between 4.0% to 4.75%. Naturally, these foreign mrp estimates are for the standard rather than the Officer version of the CAPM. However, these foreign regimes also lack dividend imputation, and the two effects are likely to offset. So the comparison of mrp estimates referred to above remains reasonable.

A recent exception to this practice is the AER that, in its May 2009 decision on the WACC parameters for energy networks, increased its mrp estimate from 6.0% to 6.5%. The AER made this change given its concerns at that time of the effect of market instability resulting from the global financial crisis.

The Authority is not proposing to adopt the AER's decision on this matter on the basis that:

(a) the Authority's methodologies indicate that 6.0% is a reasonable estimate and sits above both the median and average estimates;

(b) any adjustments made for short-term fluctuation in market conditions are inherently highly subjective, both in the scale of the adjustment and the period over which they would need to be subsequently reversed; and

(c) in its previous decisions, the Authority did not lower the market risk premium when market conditions at the time led some stakeholders to seek a reduction – therefore increasing the premium now would be inconsistent with its past practice that sets the mrp at a level to encourage investment over the medium term and not in response to short term market fluctuations. This is a view which is also supported by Gray and Officer, (2005: 10-11).

The Authority also took into consideration the potential inconsistency of estimating the mrp relative to the 10-year Commonwealth government bond but using the 5-year Commonwealth government bond in other aspects of this draft WACC decision.

In this regard, in terms of historical averaging, available data indicate that the average difference between the five-year and 10-year Commonwealth government bonds is around 20 basis points (i.e. 0.20%). Such a difference is well within the standard error of the estimates and the head room the Authority provided between the proposed 6% allowance and the mean/mode estimates relying on a range of methodologies.

Debt Beta

The WACC for the 2006 undertaking was based on a debt beta of 0.12. This was based on choosing the mid-point between a range of values where the lower bound was 0 and the upper bound is positively correlated with the size of the debt margin.

QR Network's Proposal

QR Network proposed a range of 0 to 0.12 for the debt beta. In this context, Synergies submitted that the Authority's current approach is likely to materially overstate the actual debt beta as the size of the debt margin has increased significantly recently and that margin includes a non-trivial component for non-systematic default risk. Therefore, to the extent that the debt beta is overestimated, the equity beta is underestimated.

As a result, Synergies argued that the Authority should rely on a zero debt beta but noted that the value attributed to the debt beta would not have an impact if the same value was used when de-levering and re-levering the beta estimates (QR Network, sub. no. 16: 35-39).

Stakeholders' Comments

Stakeholders did not comment on this specific aspect of WACC.

Authority's Analysis and Draft Decision

The Authority does not accept Synergies' proposal to apply a zero debt beta, as research indicates that the debt margin includes a positive and non-diversifiable component. However, the Authority does agree with Synergies' point that, as long as the same value of the debt beta is applied consistently in the de-levering and re-levering process, the effect on the equity beta range should not be material.

Therefore, for purposes of this review, the Authority will apply its previous estimate of 0.12 from the Authority's December 2005 final decision on QR's 2005 DAU.

Asset/Equity Beta[5]

In the 2006 undertaking, the Authority accepted that an asset beta of 0.45 would be reasonable, with a possible range being 0.35 to 0.50. However, the Authority settled on an asset beta of 0.50 to ensure there was sufficient incentive for QR Network to undertake timely investment in new infrastructure. At the benchmark gearing of 55% debt, the asset beta of 0.50 gave an equity beta of 0.90.

QR Network's Proposal

QR Network has proposed an asset beta range of 0.50-0.60, which converts to an equity beta range of 0.93 to 1.11 at 55% gearing.

QR Network supported this increase in asset beta on the basis of:

(a) *relativity to DBCT* – as the Authority previously determined QR Network's covariance risk as higher than DBCT pre-expansion (0.45 vs. 0.40), the current parity of both asset betas (0.50) reflects the previous assessment that QR Network was undertaking relatively modest expansion relative to DBCT – this is now no longer the case given its significant investment program (QR Network, sub. no. 11: 37-40, 42-43, 65-67).

(b) *long term asset stranding risk* – a significant and permanent deterioration in demand might strand some of its assets and this risk is only partially mitigated by its accelerated depreciation proposal; and

(c) *revenue cap* – as the Authority previously rejected QR Network's argument that moving to a hybrid price cap would increase its covariance risk, QR Network's move to a revenue cap therefore should not now result in the Authority decreasing its covariance risk (i.e. beta).

Building on these arguments, QR Network's proposed beta range was based in large part on a comparator analysis with U.S. coal firms, a Canadian coal export terminal (Westshore Terminals Ltd) and U.S. and Canadian rail companies. In undertaking this analysis, QR Network argued that caution must be exercised in interpreting equity beta estimates, as they can be subject to significant estimation error (QR Network, sub. no. 11: 67-68).

The comparators were selected on the basis that they relate to QR Network either by the nature of their product (i.e. coal) or their service (i.e. coal handling and rail freight haulage). Synergies said it believed these comparators would share similar drivers to QR Network (i.e. demand for coking and thermal coal), where average asset / equity betas are:

(a) *Westshore* (1.27/2.47) – is part of an export coal supply chain and has long term contacts and volume-based charges. Synergies considered Westshore would have a higher covariance risk as its tariff is linked to the Canadian dollar price of coal, therefore exposing it to fluctuations in both the coal price and the Canadian dollar (QR Network, sub. no. 16: 62, 72-75);

(b) *eight coal companies* (1.14/2.20) – Synergies noted that, while the companies have lower operating leverage than QR Network, they are unregulated and exposed to movements in the coal price, i.e. they bear volume risk that QR Network does not (QR Network, sub. no. 16: 62, 72-75); and

[5] As Synergies has principally reported asset betas and ACG has reported equity betas, for comparison purposes the Authority has provided consistent asset and equity betas in the form of β_a / β_e , applying the Conine levering model, gearing of 55%, a debt beta of 0.12, and a gamma of 0.50.

(c) *six railroads* (0.82/1.55) ¬ Synergies noted that U.S. class 1 railroads receive the majority of their revenues from coal, relative to other freight, and tend to have long term contracts. Synergies acknowledged, however, that as they carry intermodal freight and operate in a competitive environment they are exposed to relatively higher covariance risk (QR Network, sub. no. 16: 62, 72-75).

Based on its estimates of the asset betas for individual comparators, Synergies indicated that the average asset beta for these groups ranged from 0.82-1.27.

In addition to estimating asset betas for individual coal and rail firm comparators, Synergies also estimated asset betas for two portfolios, with one comprising the rail firms and the other, the coal firms. In doing so, it obtained an asset beta range of 0.80-0.90 and 1.0-1.30 respectively. As a result, Synergies concluded that its portfolio range of 0.80-1.30 was broadly consistent with its individual comparator range of 0.82-1.27.

Synergies also noted that the portfolio betas have increased since early 2006, which is suggestive that the relative risk of U.S. coal and rail firms have also increased (QR Network, sub. no. 16: 69-71).

In conclusion, Synergies submitted that these comparators would be exposed to higher covariance risk than QR Network, as their returns are more sensitive to the market. For this reason, Synergies considered that for QR Network a reasonable asset beta range would be between 0.50-0.60, which is less than the railroad with the lowest asset beta (i.e. less than 0.65).

Stakeholders' Comments

Stakeholders did not directly comment on this specific aspect of WACC. However, the QRC did indicate that either the gearing or beta should be adjusted to reflect the risk reduction achieved by QR Network since the December 2005 decision. The QRC submitted that this approach, together with a simple updating of time-variant WACC parameters, would provide QR Network with a WACC that was at the upper end of a plausible range and would provide the necessary incentives to invest.

Authority's Analysis and Draft Decision

The Authority's beta assessment for the 2006 undertaking determined that the closest available comparators to QR Network at that time were the Port of Tauranga (0.35/0.60), Westshore (0.45/.80) and regulated energy transmission and distribution businesses (0.50/0.90).[6] In this regard, the Authority noted that the energy businesses were an upper bound, as the average energy network is likely to be more sensitive to the Australian market than QR Network (QCA, December 2005: 32).

Since that review, changes in the contracting and operating characteristics of the Port of Tauranga and Westshore have exposed them to significantly higher risks. In particular, the Port of Tauranga's revenue is now primarily sourced from container traffic, and Westshore's revenues are tied to the coal price. In this regard, the Authority concurs with its consultant (the Allen Consulting Group (ACG)) that both firms have returns that are now much more sensitive to their respective markets than at the time of the previous review.

In contrast, QR Network's earnings have remained highly invariant to market changes due to a combination of its uncorrelated demand and revenue certainty. The correlation/covariance between Australia's GDP/stock market and Queensland's coal exports is currently and will continue to be low because export growth is being driven by industrialisation in developing

[6] The assessment of Westshore's beta for the 2006 assessment referenced the period prior to 1 April 2003, which was the date from which its revenue determination has been tied to the coal price.

economies, particularly in Asia. Therefore, while two of QR Network's previous comparators have risk profiles that have become substantially riskier since the last review, QR Network's risk profile has not. Accordingly, the Port of Tauranga and Westshore are no longer close comparators for QR Network.

ACG examined thirty-two firms in the coal, rail, transport, and energy sectors. ACG concluded that none of these firms were direct comparators to QR Network given the differences in the underlying drivers of business risk. Nevertheless, ACG stated that some comparators were more relevant than others, with regulated energy transmission and distribution being the most relevant. In this regard ACG noted that average asset / equity betas are:

(a) *coal*, US (1.44/2.80) and Australian (1.12/2.16) – ACG argued that coal companies are not appropriate comparators as they are exposed to both volatile coal prices and exchange rates. In contrast, QR Network's revenue cap insulates it from such volatility reflected in QR Network's relatively stable earnings despite wide swings in coal prices. ACG concluded that QR Network's equity beta would be significantly less than the average of the Australian coal companies, i.e. less than 2.16 (ACG, June 2009: viii, 11-13);

(b) *transport*, New Zealand (0.81/1.53) and Australia (0.65/1.21) – ACG concluded that QR Network's equity beta would be less than that the average for the transport companies (i.e. less than 1.21) as the other firms are more sensitive than QR Network to the business cycle given the nature of the consumer goods they transport;

(c) *rail*, US class 1 (0.98/1.87) and Canada (0.48/0.85) – as the majority of their revenue is sourced from automotive/industrial and intermodal freight, their returns can be expected to be relatively sensitive to market movements. However, ACG explained that the Canadian railroads' lower covariance compared with U.S. railroads was due to a larger share of their returns being sourced from agricultural goods, which are less sensitive to market changes. Given the lack of volatility in the demand for QR Network's services, ACG considered that QR Network would have an equity beta lower than the railroads (i.e. less than 0.85); and

(d) *Australian electricity transmission / distribution* (0.62 – 0.80) – businesses in this sector have several characteristics that make their business risk profile similar to QR Network, including relatively uncorrelated demand, revenue caps and/or take-or-pay contracts over significant volumes. Given these similarities, ACG concluded that QR Network is likely have a covariance risk that is broadly similar to these firms (ACG, June 2009: 28).

Based on this analysis, ACG acknowledged that there was little direct supporting evidence for a precise value for QR Network's beta. However, at the same time, ACG considered that the electricity transmission and distribution businesses' underlying drivers of covariance risk were closest to those of QR Network.

ACG also noted that it accepted QR Network's and Synergies' comment that a cautious approach should be undertaken in assessing the betas given the uncertainties with beta estimation. However, ACG argued that, as Synergies' proposed comparators are, in general, not relevant to QR Network's covariance risk, Synergies' proposal to apply statistical analysis to its beta estimates is unlikely to have any value.

Further, ACG argued that an equity beta estimate for QR Network should not be drawn from the upper end of a range that has been constructed from inappropriate comparators. As such, ACG argued that estimation of betas should ultimately rely on judgment that is informed by empirical analysis (ACG, June 2009: 28).

In this context, ACG noted that the closest of these groups (i.e. the Canadian railways) with an average equity beta of 0.85 is near the upper bound (i.e. 0.90) of ACG's identified range for QR Network.

ACG also argued that the Australian energy transmission and distribution businesses were better comparators for QR Network given their low sensitivity to general movements in the Australian economy. ACG estimated an equity beta range of 0.62 to 0.80 for these businesses when applying QR Network's proposed gearing of 55%.

Given these relativities, ACG concluded that there is no persuasive evidence to depart from its previous recommendation of a range of 0.60-0.90 for the equity beta, with a preferred estimate of 0.80 (at the upper end of this range).

In considering the appropriate beta for QR Network, the Authority also took into consideration the recent AER decision to lower the equity betas for the regulated energy networks from 1.0 to 0.80. Based on the material presented to it, the AER considered an estimate of 0.70 to be reasonable but provided the businesses with an equity beta of 0.80 for conservatism (AER, May 2009: 331-332, 341-344).

In reviewing that decision, and the associated material, the Authority found the research by Professor Olan Henry to be particularly compelling as it:

(a) applies a second approach (i.e. least absolute deviations or LAD) as a cross-check to estimating the individual comparator equity betas, and the results from this approach broadly support the estimated range from applying the standard estimation approach (i.e. ordinary least squares or OLS);

(b) constructs a number of portfolios of the individual comparator firms, and the resulting portfolio betas also broadly support the previous results; and

(c) demonstrates that the above results are, in general, robust to a range of diagnostic and sensitivity tests (e.g. parameter instability) and, therefore, are reliable.

On the basis of his research, Professor Henry recommended an equity beta range of 0.35-0.62; that is, the upper end of Professor Henry's range is at the lower end of ACG's recommended range.

The Authority agrees with ACG that there is a lack of direct comparators for QR Network and that the most relevant comparators are the Australian regulated energy businesses. The equity beta for these businesses has been variously estimated to range either from 0.35-0.62 or from 0.62-0.80.

As indicated in its decision in respect of QR Network's 2006 undertaking, the Authority is of the view that QR Network's riskiness would tend to sit below that of the regulated energy businesses. While QR Network shares many of the same characteristics of these energy businesses, in that they are regulated and face substantial capital expenditure programs, these energy businesses have demand, and therefore, return profiles that have a higher degree of covariance with the domestic economy.

With respect to asset stranding risk, the Authority considers that the measures that it is proposing to accept as part of this draft decision, in particular accelerated depreciation for new capital expenditure and the greater ability to seek access conditions (e.g. capital underwriting) for major projects, combined with strong coal demand (in particular in relation to metallurgical coal), and the highly competitive position of Queensland coal producers, means that QR Network's asset stranding risk is minimal.

Accordingly, the Authority does not believe that the previous uplift to the equity beta, from 0.80 to 0.90, can be justified.

The Authority also believes that there are strong arguments that other measures that QR Network has introduced into the 2009 DAU, and which the Authority proposes to accept, will further reduce its exposure to covariance risk. These include, for example, annual updates to volume forecasts and indexing maintenance costs annually with reference to a special purpose index of maintenance costs (rather than to CPI).

The latter measure has been introduced by QR Network to reduce its exposure to an over-heated labour and materials supply market in central Queensland. These measures complement existing risk mitigation measures such as the revenue cap and take-or-pay contracts. In the case of the take-or-pay contracts, the weaker terms of the pre-2006 undertaking will be increasingly unwound as the older contracts expire and are replaced with the terms of the post-2006 undertaking arrangements.

Accordingly, the Authority believes there is a strong case for an equity beta lower than 0.80. An equity beta of 0.70 would sit well within the beta range proposed by ACG and above the range estimated by Professor Olan Henry for the energy businesses.

At this time, the Authority has not proposed to reduce the equity beta to 0.70. The Authority believes that 0.80 is a conservative estimate given statistical uncertainties in beta estimation and the risk mitigation measures available to QR Network.

However, the Authority invites comments by stakeholders on the reasonableness of this draft decision, in particular any evidence on whether a lower beta estimate is justifiable in the circumstances.

Capital Structure and Credit Rating

Capital structure and credit rating are two related inputs to the assessment of WACC.

The Authority adopts a notional capital structure which determines the relative weights to attach to the debt and equity components. In doing so, the Authority seeks to ensure that the capital structure is efficient but allows the business to vary its actual capital structure if it believes there are advantages in doing so.

The Authority's assessment of the credit rating is based on the notional capital structure. Companies that face less risk in their operating environment are generally able to sustain greater risk in their financial profile (i.e. higher gearing) for a given rating category. Although the rating itself is not a direct input into the WACCC calculation, it is used to determine an appropriate debt margin.

The 2006 undertaking was based on a 55% debt and 45% equity structure and a BBB+ credit rating.

QR Network's Proposal

QR Network submitted that a capital structure of 55% debt and 45% equity remains appropriate, as there is no evidence that it could support a higher level of debt over the long term. Given a gearing of 55%, QR Network argued that it should also maintain its BBB+ credit rating (QR Network, sub. no. 11: 72).

Stakeholders' Comments

On the other hand, the QRC submitted that, given QR Network's "virtually guaranteed" cash flow, it could reasonably be expected to have either: (i) a higher capacity for debt at its current BBB+ credit rating; or (ii) a benchmark credit rating higher than BBB+ at its current gearing of 55%.

Authority's Analysis and Draft Decision

In its assessment for the 2006 undertaking, the ACG concluded that an appropriate benchmark capital structure for QR Network was 55% debt and 45% equity.

In reviewing this benchmark for the 2009 DAU, ACG considered a range of comparator groups, including rail, coal, transport, and regulated energy firms. ACG assessed the cash flow volatility of these businesses in comparison to QR Network. Its analysis suggested that there was evidence from comparators to suggest that QR Network could at least maintain its current capital structure. Therefore, ACG concluded that, on balance, there is no compelling evidence to move away from QR Network's previously benchmarked capital structure of 55% debt and 45% equity.

Given this capital structure, the ACG also considered that a move away from a BBB+ rating for QR Network is not warranted at this time (ACG, June 2009: vii, 17-19).

While the ACG has presented some analysis to support gearing above 55%, other evidence suggests that an appropriate level might be less. The Authority has assessed this evidence and considers that the weight of evidence is not sufficient to justify a change in gearing. Likewise, the Authority will maintain a credit rating of BBB+ for the same reasons. With respect to both gearing and credit rating, the Authority notes that no evidence to the contrary was presented.

Debt Margin and Debt Refinancing Costs

The debt margin is the amount above the risk-free rate that a business has to pay to acquire debt funding from financial markets. This debt margin increases in line with the riskiness of businesses.

For the 2006 undertaking, the debt margin was estimated to have been 143 basis points, comprising 130 basis points based on the benchmark BBB+ credit rating and 12.5 basis points for periodic debt refinancing costs.

QR Network's Proposal

In its 2009 DAU, QR Network proposed a cost of debt that consisted of two principal elements:

(a) a debt margin of 280 basis points – based on a BBB+ credit rating and a 10-year term bond using Bloomberg data; and

(b) periodic debt refinancing costs of 15.5 basis points – comprising direct costs of 12.5 basis points and indirect costs of 3.5 basis points, where the latter is compensation for the indirect costs of debt 'underpricing' (QR Network, sub. no. 11: 73, sub. no. 15: 34).

These estimates were determined in June 2008 and are therefore based on market circumstances that existed at that time.

Over the intervening period the global financial crisis has reduced the liquidity and increased the volatility of financial markets. This has tended to increase debt margins and has made the estimation of debt margins more difficult.

In this regard, using a comparable method of estimating the debt margin as QR Network did at the time of its submission of the 2009 DAU, QR Network's proposed debt margin increases from around 296 bp to about 426 bp, including an allowance of 12.5 bp for periodic debt refinancing costs.

Stakeholders' Comments

Stakeholders did not comment on this specific aspect of WACC.

Authority's Analysis and Draft Decision

The extent of the illiquidity in global financial markets is reflected in increased debt margins relative to previous years. For example, for corporate BBB rated bonds of 1 to 5 years tenor, the spread above the relevant Australian Commonwealth government bond as at June 2007 was 88 basis points (bp), increasing to 267 basis points at June 2008 and to 407 basis points at June 2009. However, since that time, the spread has since declined (RBA website).

In particular, illiquidity in these markets has also made it difficult to estimate the debt margins. In its June 2009 report to the Authority on, *inter alia*, an efficient cost of debt for QR Network, ACG observed that direct market evidence in Australia on BBB+ rated debt for comparable businesses to QR Network was lacking.

Moreover, standard practice has been to estimate the debt margin indirectly by referencing the Bloomberg and CBA Spectrum proprietary 'fair value' yield curve estimation methodologies. These two data sources have tended to track each other reasonably closely. However, from March 2008 they started to diverge widely. For instance, in April 2009, Bloomberg estimated a debt margin of 347 basis points and CBA Spectrum estimated a margin of 675 basis points, for 10-year BBB+ debt – relative to a risk-free rate of 4.46%.

As a result, the June 2009 ACG report spent some time discussing which data source was the more reliable and examining options to address the uncertainty.

However, since that time, the two methodologies have again begun to provide relatively convergent estimates, with current estimates from the two methods differing only by about 10 basis points for both 5-year and 7-year term BBB+ rated debt. Therefore, while ACG identified concerns in its report with estimating an efficient cost of debt, these concerns have largely diminished at the time of making this draft decision.

The Authority also notes QTC's concern about higher transaction costs and QR Network's proposal for a 15.5, and not 12.5, basis point margin for higher debt refinancing costs.

In considering this matter, the Authority notes that revising its benchmark estimate of 12.5 bp is subject to the difficulty that there is not sufficient benchmark evidence available due to the lack of new bond issues. In any case, the Authority notes that the QTC did not provide evidence to support its claim.

In terms of the proposed 3 bp for the indirect costs of refinancing, the Authority notes that this matter has not previously been put before it. The issue is that, if a firm issues debt securities at a discount (relative to the fair market price), there is an immediate gain to new investors and a loss to the firm in terms of lower proceeds from the issue. CEG has argued that QR Network should be compensated for this (indirect) cost. However, the Authority does not find CEG's evidence of underpricing convincing and considers that recent research finds no evidence of significant underpricing on investment grade debt (Cai, et al, 2007).

The Authority therefore rejects QR Network's claim in this respect and considers that 12.5 basis points is sufficient for periodic debt refinancing costs.

As the Authority's draft position is to estimate the risk-free rate with reference to a 5-year bond, the Authority has estimated a debt margin to a five-year term for consistency. Accordingly, at a rating of BBB+ and a five-year term of debt, the debt margin is 3.56% (inclusive of debt refinancing costs).

Gamma

Gamma reflects the benefit from dividend imputation credits and is the product of the utilisation rate of those credits and the distribution rate (imputation credits distributed as a proportion of company tax paid).

QR Network's Proposal

QR Network proposed two estimates of gamma, zero and 0.50 with its 75th percentile WACC implying an estimate of 0.125 for gamma. The upper bound of 0.50 was based on regulatory precedent to date, while the lower bound of zero was based on a review of this parameter by Synergies.

Synergies proposed a gamma of zero on the basis that as it considered that the utilisation rate was zero, gamma is zero as it is the product of the distribution rate and the utilisation rate (of zero).

Synergies argued for a utilisation rate of zero on the basis that:

(a) recent empirical studies, and Synergies' own empirical work, indicated that the utilisation rate, and therefore, gamma are more likely to be at, or near, zero; and

(b) the equity return to a foreign investor will be lower than the return to a domestic investor, as the former cannot benefit from dividend imputation credits. Synergies sought to refute the Authority's previous argument that a value of zero could only be consistent with an international CAPM by arguing that, in any case, an international CAPM might not produce a better estimate of the cost of equity than a domestic CAPM and, as such, resort to a domestic CAPM should involve estimating its parameters "as they are", including the effect of foreigners (QR Network, sub no. 16: 104-107).

Stakeholders' Comments

Stakeholders did not comment on this specific aspect of WACC.

Authority's Analysis and Draft Decision

The Authority notes that the upper estimate of 0.50 suggested by QR Network is the estimate adopted to date for gamma by the Authority.

So far as the lower estimate of zero is concerned, this is driven by Synergies' use of zero for the utilisation rate. The Authority does not accept Synergies arguments regarding this.

The Authority does not consider it appropriate to use the value placed on imputation credits by foreign investors within a domestic CAPM model (i.e. Officer model). The Authority considers that consistency requires that all parameters are estimated within the context of either a domestic CAPM or an international CAPM version.

In addition, as Synergies' gamma estimate is inconsistent with its other CAPM parameter estimates, a minimum requirement must be that the outcome from applying the Officer CAPM in conjunction with an estimate of gamma that reflects foreign investors must lie within the

bounds arising from complete segmentation and complete integration of national equity markets. Synergies has not demonstrated that its estimate satisfies this condition.

In addition, the Authority does not accept Synergies' argument that the utilisation rate is "the value the marginal investor places on one dollar of imputation credits". Rather, within the version of the CAPM that is used here (the Officer model) the utilisation rate is defined as a weighted average of the utilisation rates of all investors in the economy (Lally and van Zijl, 2003). Moreover, the equilibrium price of equities (and therefore the cost of equity) is determined, *inter alia*, by the aggregate demand for (and supply of) equities and not simply by a marginal investor.

Given that the Authority rejects the estimate for gamma of zero, and the other estimate used by QR Network was 0.50, the Authority has chosen 0.50 as the value of gamma, which is consistent with its practice to date.

The Authority believes this is a conservative estimate for gamma, as the utilisation rate for a domestic CAPM is likely to be closer to one than the current estimate of 0.625 adopted by the Authority, as any estimate should exclude the effect of foreign investors. In addition, it is noted that the AER recently increased its estimate of gamma from 0.50 to 0.65.

Conclusion on WACC

In this Draft Decision, the Authority has sought to introduce balance between the reduced risks and increased rewards proposed by QR Network. In particular, the Authority has taken account of the risk mitigation measures proposed by QR Network which it proposes to accept and the impact of these on the appropriate return for QR Network. It is also a package approach and elements are not able to be adjusted without potential impact on other elements.

The Authority is proposing a WACC of 9.41% which is around 1% higher than approved as part of the 2006 undertaking. This is due to an increase in the debt margin which has increased significantly in the past 18 months as a result of the tightening of credit markets in a response to the global financial crisis. This has been partially offset by the Authority's proposal to reduce the equity beta from 0.90 to 0.80 as a result of the reduction in QR Network's overall risk profile.

The Authority's proposed WACC of 9.41% is below the 11.76% WACC proposed by QR Network (10.70% using more recent data on the risk-free rate and the debt margin).

In large part this is because QR Network has benchmarked itself against comparators that bear substantially more systematic risk that it does. Also, QR Network has sought an uplift to the risk free rate and the mrp that is not well supported by argument or by other evidence available.

In particular, QR Network has generally proposed parameter ranges where the lower end of those ranges is at the high end of ranges that the Authority considers to be reasonable. The effect of this is compounded when QR Network estimates its proposed WACC by adopting the WACC that sits at the 75^{th} percentile of a distribution based on its already high parameter ranges.

The Authority's proposed WACC is based on, amongst other things:

(a) an mrp of 6.0%;

(b) an equity beta of 0.80; and

(c) a gamma of 0.50.

The Authority considers that these are conservative parameter estimates given the risk mitigation measures that the Authority is proposing to approve as part of this draft decision and also given the information available to the Authority at this time.

Indeed, the Authority believes there is a strong argument that the equity beta for QR Network could be lower as it believes that QR Network's risk profile is lower than that of the regulated electricity networks, particularly as a result of the approved risk mitigation measures. In its May 2009 decision, the AER determined an equity beta of 0.80 for the electricity networks despite robust evidence that the high end of a reasonable range was 0.70. The Authority believes that QR Network's risk profile should sit below these businesses because QR Network is less exposed to the Australian economy and has in place, and has sought additional, risk mitigation measures that do not apply to the electricity networks. These businesses all face significant capital expenditure challenges.

Table 1.3: WACC Parameters, Authority draft decision

Parameter	***QR Proposal 2009***	***QR Proposal Updated***	***QCA Proposal 2009***
Credit rating	BBB+	BBB+	BBB+
Risk-free rate	6.70%	5.58%	5.29%
Risk-free rate premium	0.45%	0.45%	
Market Risk Premium	6.75%	6.75%	6.00%
Asset beta	0.58	0.58	0.45
Gearing (debt %)0.45%	55%	55%	55%
Equity beta	1.07	1.07	0.80
Gamma (franking credit benefit)	0.13	0.13	0.50
Equity Margin	7.67%	7.67%	4.80%
Cost of Equity	**14.37%**	**13.25%**	**10.09%**
Debt margin	2.80%	4.10%	3.43%
Debt transaction costs	0.16%	0.16%	0.13%
Total Debt Margin	2.96%	4.26%	3.56%
Cost of Debt	**9.66%**	**9.83%**	**8.85%**
WACC Margin	5.08%	5.79%	4.12%
WACC	**11.76%**	**11.37%**	**9.41%**

1.4 Volume Forecasts – Central Queensland Coal Region

Volume forecasts are a key element in determining the costs and reference tariffs over the regulatory period. The forecasts underpin required capital expenditure and maintenance programs and are used to convert the approved annual revenue requirement into reference tariffs for coal-carrying train services in the CQCR.

QR Network's 2009 DAU application included volume forecasts on a net tonne basis for the next regulatory period while Schedule F of the 2009 DAU sets out the volume forecasts on a gross tonne kilometre basis.

QR Network's Proposal

QR Network proposed volume forecasts for each coal system in central Queensland from 2009-10 to 2012-13 and provided the Authority with detailed confidential information in support of this on a mine level basis.

QR Network stated that its forecasts were based on a range of factors, including:

(a) broad economic considerations, including the demand outlook for domestic and export coal in Queensland;

(b) anticipated contract tonnages;

(c) the entry of a second rail operator in the central Queensland coal region (CQCR);

(d) assumed rolling stock capacity (including the timing of QR National's additional rolling stock purchases); and

(e) assumed port capacity (e.g. QR Network has assumed a sustainable inload capacity of 85mtpa at DBCT.

QR Network's forecasts do not include volumes associated with the GAPE, the Surat Basin Railway or the Wiggins Island Coal Terminal given the uncertain timing of these planned expansion projects.

QR Network noted that its forecast volumes reflected the significant increases in network capacity that will be installed up to and including the first year of the 2009 DAU (QR Network, sub. no. 11: 95). In this respect, QR Network's proposed volume forecasts are 42% higher than the actual volumes experienced from 2005-06 to 2008-09.

In support of its forecast volumes, QR Network provided a review prepared by Halcrow Pacific Pty Ltd (Halcrow). Halcrow concluded that QR Network's forecasts were, in general, in line with forecasts from other independent bodies and were in line with QR Network's capital expenditure and with rollingstock investments (Halcrow, sub. no. 17: 25-26). While Halcrow noted some reservations regarding QR Network's volume forecasts (e.g. the impact of going from an even railing to cargo assembly operating mode), it did not recommend revision of QR Network's forecasts.

Revised Volumes

On 5 June 2009, QR Network formally advised the Authority that its proposed volume forecasts were no longer reflective of its expectations, particularly in the first two years of the next regulatory period. This is a result of the rapid change in global economic conditions that have lowered the near term demand for coal.

As a result, QR Network proposed revised volumes for 2009-10 to 2012-13 for each CQCR system that are around 7% lower than the original forecasts proposed.

Table 1.4 shows the revised forecasts as against the original volumes proposed by QR Network (original volumes are in brackets below the revised forecasts for each system).

Table 1.4: QR Network's Volume Forecasts (revised vs *(original)*) (mtpa)

System	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*Total*	*Reduction from Original (%)*
Blackwater [a]	**56.9** *(65.0)*	**63.5** *(65.0)*	**65.0** *(65.0)*	**65.0** *(65.0)*	**250.4** *(259.9)*	**-9.6** (-4%)
Goonyella[b]	**92.9** *(120.8*[c]*)*	**117.2** *(124.6)*	**124.5** *(124.6)*	**124.5** *(124.6)*	**459.2** *(494.4)*	**-35.2** (-7%)
Moura	**13.4** *(16. 4)*	**16.4** *(16. 4)*	**16.4** *(16. 4)*	**16.4** *(16. 4)*	**62.8** *(65.8)*	**-3.0** (-5%)
Newlands	**14.7** *(18.6)*	**17.5** *(18.6)*	**19.5** *(24.5)*	**19.5** *(24.5)*	**71.2** *(86.2)*	**-15.0** (-17%)
Total CQCR	**177.9** *(220.8*[d]*)*	**214.7** *(224.6)*	**225.5** *(230.5)*	**225.5** *(230.5)*	**843.5** *(906.3)*	**-62.8** (-7%)
Reduction from Original	**-42.9** *(-19%)*	**-9.9** *(-4%)*	**-5.0** *(-2%)*	**-5.0** *(-2%)*	**-62.8** *(-7%)*	

[a] *includes Vermont, Rolleston and Minerva mines' tonnes;*
[b] *Goonyella forecasts exclude forecasts associated with the Goonyella to Abbot Point Expansion;*
[c] *number reported on p. 94, Vol 2 of QR Network submission is incorrect (124.6), correct number presented;*
[d] *as per c above, total is updated to reflect correct Goonyella forecast in 2009-10.*

Stakeholder Comments

Stakeholders did not comment on QR Network's original proposed volume forecasts. However, they had mixed comments in relation to the revised volumes.

QR National Coal considered that the revised volumes were still around 7% to 10% higher than its expectations for 2009-10 and 2010-11 based on its forecasting that relies on end market demand, global competitors and domestic mine expansion plans (QR National Coal, sub. no. 46: 1).

In contrast, the QRC considered that the revised forecasts were conservative, particularly in relation to the Newlands system, where it considered that volumes were likely to be, on average, around 17% higher than QR Network's revised estimate over the term of the 2009 DAU (QRC, informal advice, 24/6/09).

Authority's Analysis and Draft Decision

The Authority accepts that the global financial crisis has impacted on coal demand during 2008-09, the last year of the 2008 undertaking. However, demand for coal has rebounded during 2009 and it is less clear whether the factor limiting coal sales will be the global financial crisis or constraints in the coal supply chain.

Irrespective of the cause, the Authority has reviewed QR Network's revised volume estimates for 2009-10 to 2012-13 and considers that the revised volume forecasts are reasonable. The Authority's independent volume review, undertaken by its consultant's Wood Mackenzie, produced findings not materially different to the revised volume forecasts proposed (within 3%).

The Authority notes that stakeholders had mixed views and expectations in relation to volumes over the next regulatory period and, in particular, in 2009-10 and 2010-11.

While the accuracy of volume forecasts remains important in establishing efficient maintenance and operating costs, the accuracy of the volume forecasts is of lesser consequence than in the past. This is largely because, under a revenue cap, if the volume estimates are over-stated any revenue under-recovery will be recouped, in future years, through the revenue cap mechanism. The likely impact of any under- or over-recovery will also be mitigated by QR Network's proposal to annually reset volume forecasts (see chapter 6).

The Authority also accepts that it is reasonable to adopt conservative volume estimates for the Newlands system given the possible impact of track closures associated with the construction of the GAPE project.

As a result, the Authority considers that QR Network's revised volume forecasts are reasonable and the Authority's draft decision is to accept the revised volume forecasts.

1.5 Capital Expenditure Forecasts

The coal reference tariffs for central Queensland contained in the 2006 and 2008 access undertakings were determined using a global capital expenditure provision of $640 million over four years. To ensure that QR Network was revenue neutral to any over or under-spending on this forecast amount, the undertakings included a mechanism to adjust future revenues for variations between forecast and actual capital expenditure.

Specifically, the undertakings require QR Network to record the difference between the actual and forecast capital expenditure each year and then roll this forward, at the weighted average cost of capital (WACC) rate, to the end of the regulatory period. The net under (over) recovery of capital related revenues by QR Network is then recouped from (or returned to) customers via reference tariffs over the subsequent regulatory period.

QR Network Proposal

QR Network's 2009 DAU does not propose to change this underlying approach. However it proposed a significant increase in the capital expenditure provision and proposed that the WACC be updated each year to roll-forward the balance so that it is not subject to risk-free rate variability risk.

The reference tariffs included in the 2009 DAU are based on a global capital expenditure provision of $1.35 billion over four years, including separate allocations of capital expenditure to each system, and between electric and non-electric infrastructure (see Table 1.5).

Table 1.5 : QR Network's Proposed Capital Indicator 2009-10 – 2012-13 ($'000)

System	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*Total*
Blackwater (Non-electric)	$134,000	$22,000	$68,000	$111,000	**$323,000**
Blackwater (Electric)	$95,000	$67,000	$5,000	$14,000	**$181,000**
Goonyella (Non-electric)	$338,000	$137,000	$24,000	$13,000	**$512,000**
Goonyella (Electric)	$82,000[a]	$15,000	$1,000	-	**$104,000**
Moura	$2,000	$2,000	$2,000	$1,000	**$7,000**
Newlands	$13,000	$186,000	$19,000	$2,000	**$220,000**
Total CQCR	**$664,000**	**$429,000**	**$119,000[b]**	**$141,000**	**$1,353,000[c]**

[a] Table 7.2, Vol 2 of QR Submission has incorrectly represented this number; the correct one is presented above.
[b] as per above.
[c] as per above.

QR Network noted that the proposed capital expenditure is not even, either across the systems, or over time, as it has been tailored to reflect the anticipated capital expenditure profile over the regulatory period. QR Network indicated this would ensure that reference tariffs more realistically reflect the timing of the proposed underlying capital expenditure program (QR Network, sub. no. 12: 23).

QR Network provided a detailed summary of the projects underlying its proposed capital expenditure for each of the systems from 2009-10 to 2012-13 (in Appendix A of volume 2 of its submission). In general, the forecasts consist of:

(a) projects in the existing CQCR that are related to expanding the network, renewing existing assets or are related to a more general set of projects (e.g. system wide, general coal or telecommunications capital expenditure);

(b) projects at the cusp of this regulatory period that are likely to be commissioned during the next regulatory period; and

(c) forecast interest during construction, return on assets of QR Services Group and corporate overhead charges on a per system allocation.

In addition, QR Network proposed that capital expenditure associated with feasibility studies be capitalised and included into its regulatory asset base if the expenditure is approved by customers in accordance with the capital expenditure customer approval process.

QR Network said that feasibility studies are an essential input into project decision-making and it would have no incentive to undertake these studies if there is a risk it will not be compensated for them. It proposed that this expenditure be recognised as an intangible asset and depreciated over a relatively short time period (5 years) (QR Network, sub. no. 11: 106-107).

Stakeholder Comments

The QRC noted that the quantum of the capital indicator is less contentious than might otherwise be the case because of the carry-over mechanism. However, the QRC raised some concerns about the quantum of particular line items and whether or not others should be included into the regulated asset base. For instance, the QRC:

(a) noted that it was hard to tell if the significant amount of asset replacement expenditure included under 'system wide and telecommunications' ($140 million) was reasonable given the lack of information provided; and

(b) questioned whether margins paid to QR Services (totalling $118 million) should ultimately be included in the regulated asset base (QRC, sub. no. 38: 56).

In addition, the QRC noted that the indicator includes substantial allowances for GAPE which has the effect of raising reference tariffs for all Goonyella users even though there are no tonnages for GAPE included in the volume forecasts. While the QRC does not have a strong view on whether or not this expenditure should be included, it stressed that its inclusion in the capital indicator should not be seen in any way to pre-determine the treatment of these assets in the GAPE draft amending undertaking (QRC, sub. no. 38: 56).

While Asciano prefers the use of a genuine annual price setting mechanism (where there is no requirement for a capital indicator), it considered that the capital indicator values proposed by QR Network are appropriate (Asciano, sub. no. 33: 43).

Stanwell queried the inclusion of early works relating to Wiggins Island coal terminal into the general pool of capital expenditure projects for endorsement and, in particular, given it has no involvement in these assets, asked that the Authority consider this in its assessment of the calculation of the proposed access discount for Stanwell (Stanwell, sub. no. 42: 3).

Rio Tinto Alcan considered that it should not be required to contribute to capital costs of below rail infrastructure expansions given that it has a fixed generating capacity and does not receive any direct material benefit (Rio Tinto Alcan, sub. no. 40: 1).

The QRC and Asciano supported QR Network's proposal in relation to the treatment of feasibility studies, including that the costs be approved by customers via the master planning process and then included into QR Network's regulatory asset base. However, both the QRC and Asciano encouraged the Authority to scrutinise the allowance for feasibility studies in the system wide and regional cost allowances to ensure that there is no double counting. (QRC sub. no. 38, 57, Asciano, sub. no. 33: 43).

Authority's Analysis and Draft Decision

The Authority has assessed QR Network's proposal and has had regard to the comments and concerns raised by stakeholders.

The Authority notes that some stakeholders raised concerns about the type of projects included in the capital indicator estimate and others considered that they should not be required to pay for network expansions if they would receive no benefit. The Authority proposes to address these concerns first.

The capital expenditure approved as part of the capital indicator is in no sense pre-approved by the Authority and neither are the forecast projects that QR Network presented in support its claim. Rather, it is a capital expenditure amount that is approved upfront for pricing purposes only.

With regard to concerns about works for the GAPE project being included in the capital expenditure forecasts, the Authority notes that no decision on the treatment of GAPE assets has been made at this time. Therefore, the Authority proposes to exclude GAPE related forecast capital expenditure from the capital indicator. Based on QR Network's submission this involves $171 million forecast capital expenditure on the Newlands system.

In relation to the specific concerns raised by the power stations and other domestic coal customers, the Authority notes that their network usage is not dissimilar to the export customers. Indeed, there are a number of exporting mines that are also not seeking to expand their demands on the rail network. However, all customers, expanding and non-expanding, export and domestic, benefit from being linked to a large rail network that connects them to multiple mines and provides them with:

(a) economies of scale in transportation, from sharing a variety of costs they would have to bear on their own if there was not a coal export industry; and

(b) the ability to receive coal in a competitive market from a larger number of mines than would be able to operate if there were only domestic customers.

Moreover, all customers, including the domestic customers, have benefited from lower tariffs for many years when growth in demand was able to take advantage of excess capacity and economies of scale across the CQCR. Therefore, it would, in general, be inequitable and inefficient to lock in the benefits of the lower tariffs for some customers but not others.

The Authority believes this is most evident in relation to a domestic customer, such as the Gladstone Power Station, whose location means it consumes train paths that could be used for trains serving export markets. However, the case is less clear for Stanwell which, as noted by QR Network, does not use the more expensive infrastructure around Gladstone.

Therefore, in making its assessment, the Authority has not focussed on the type of projects forecast in the capital expenditure program, nor whether individual customers should be exempt from paying for them, but rather, has focussed on the reasonableness of the quantum of the indicator.

The Authority does not consider that the quantum of the capital indicator proposed by QR Network is unreasonable. In particular, a large portion of the proposed capital indicator amount, i.e. around $1.17 billion (or 86%) of the $1.35 billion proposed, has already received customer support through the master planning customer vote process. In addition, it is evident that there are be a number of other projects planned but pending customer support.

Nevertheless, the Authority does not believe it to be reasonable to include GAPE related capital expenditure in the capital indicator at a time when the pricing arrangements for that capital remain highly uncertain. Accordingly, the Authority considers that the capital indicator should be reduced to $1.18 billion.

With regard to feasibility studies, the Authority has no issue, in principle, with accepting that the costs associated with the studies are a legitimate cost of QR Network's capital expenditure regime. However, it is not clear to the Authority that the details of QR Network's approach are reasonable.

In particular, the Authority does not consider it reasonable to accept costs of an uncompleted project into the regulatory asset base (see section 10.4). Also, the Authority does not consider it reasonable to accelerate the depreciation on *all* capitalised feasibility studies undertaken by QR Network. If the studies are undertaken on a project that proceeds, these costs should be depreciated at a rate that is consistent the rate associated with other assets relating to that

project. As such, when accepting these costs into the asset base, the Authority will not provide for accelerated depreciation, but rather, will have regard to the overall life of the project.

Alternatively, if studies were undertaken on a project that did not proceed, the Authority considers it appropriate for QR Network to expense these costs.

It is noted that this approach is consistent with the approach the Authority has taken in other regulatory decisions. For example, feasibility studies undertaken by DBCT Management as part of the 7x expansion are included in the regulatory asset base upon approval by the Authority and subsequently depreciated over the life of the regulated assets.

Accordingly, the Authority will assess QR Network's treatment of feasibility studies on an individual basis and with regard to its comments above.

1.6 Capital Expenditure Carry-over Account

Schedule FB of the 2008 undertaking requires QR Network to maintain a capital expenditure carry-over account that records the difference between the approved capital expenditure and the global capital indicator.

Under these arrangements, QR Network must calculate the *balance* of the capital expenditure carry-over account by determining the difference in revenues it earned (based on forecast capital expenditure) compared to the revenues it should have earned (based on actual capital expenditure) in each year. The revenues relate to cost components of the annual revenue requirement that are recovered through access charges including the return on capital and return of capital (depreciation).

Once the balance has been calculated as an under or over-recovery of revenues in each year, it is rolled forward to the end of the regulatory period using the approved weighted average cost of capital (WACC) rate. QR Network must then ensure that the reference tariffs are determined with the intention of clearing that balance over the term of the next undertaking.

QR Network's global capital indicator over the term of the 2006 and 2008 undertakings was $640 million. To date, the Authority has approved $544 million and is currently assessing QR Network's 2008-09 capital expenditure claim of $412 million.

QR Network's Proposal

QR Network originally estimated an aggregate $0.8 million negative balance in the capital expenditure carry-over account as at 1 July 2009 and had sought to add this to the revenues to be recovered over the term of the 2009 DAU. This was based on the approved capital expenditure for 2005-06 and 2006-07 and its best estimates of forecast capital expenditure 2007-08 and 2008-09.

Since its submission of the 2009 DAU, and similar to the estimate for the opening asset value, QR Network has indicated to the Authority that it believes a negative balance of $16.5 million would be more appropriate. This updates the past balance calculations by using the approved 2007-08 capital expenditure ($250.9 million) and the revised forecast for 2008-09 ($412.0 million, as discussed in section 1.2).

Table 1.6 shows a breakdown of this balance by system and by electric and non-electric infrastructure.

Table 1.6 : QR Network's forecast capital expenditure carry-over balance

System	*Balance 2009-10 ($m)*
Blackwater	(12.3)
Blackwater Electric	1.05
Goonyella	(16.7)
Goonyella Electric	1.06
Moura	5.9
Newlands	4.5
Total	**(16.5)**

QR Network's estimate uses the approved WACC of 8.43% to roll forward the balances in each year to 1 July 2009.

Authority's Analysis and Draft Decision

Stakeholders did not comment on this aspect of QR Network's submission.

The Authority has reviewed and has confirmed that QR Network's revised estimate of the under-recovery of its capital expenditure over the term of the 2006 and 2008 undertakings is based on the Authority's approved WACC and capital expenditure for 2005-06, 2006-07 and 2007-08. The Authority believes that QR Network's revised forecast capital expenditure for 2008-09 should be reduced by $44 million as recognition that the GAPE capital expenditure should not be included in other CQCR tariffs at this time. In addition, the 2008-09 forecast capital expenditure should be amended in order to take account of the capital expenditure associated with the Vermont mine that was commissioned in January 2009.

Accordingly, the Authority's proposes a (negative) capital carry-over account balance of $10.6 million and that it be recovered during the term of the 2009 undertaking. This will compensate QR Network for the shortfall in capital expenditure revenues recovered through access charges over the current regulatory period.

To the extent that the 2008-09 capital expenditure ultimately approved by the Authority differs from the $412 million QR Network has claimed, a corresponding adjustment will be required to the capital carry-over balance to take account of this. While provisions relating to the annual reset of reference tariffs would allow for this adjustment to occur, there is the prospect that the approved amount will be known by the time of the Authority's final decision.

1.7 Accelerated Depreciation

Existing assets, and assets included in QR Network's regulatory asset base during the term of the 2006 and 2008 undertakings, are depreciated based on asset lives endorsed by the Authority. These asset lives were developed in determining the opening asset value for the 2001 undertaking and applied again in determining and reconciling the opening asset value for the 2006 undertaking.

QR Network's Proposal

QR Network proposed that a new list of asset lives be endorsed by the Authority for use in the 2009 undertaking period. In particular, QR Network proposed that it would:

> *'not apply these [new asset lives] in coming up with the opening asset value to apply from the commencement of UT3, however, it is proposing that these lives be applied to new and existing assets from 1 July 2009'. (QR Network, sub. no. 11: 62).*

QR Network also proposed to apply 'accelerated depreciation to new investments (UT3 capital expenditure) to mitigate its investment risk'. If this proposal is accepted:

(a) those assets with a remaining life in excess of 20 years at the start of the 2009 DAU would be written off over 20 years from 1 July 2009; and

(b) those assets with a remaining life of less than 20 years at the start of the 2009 DAU would be depreciated in accordance with the revised asset lives.

QR Network said it would review the appropriateness of this treatment in future regulatory periods if there was a material reduction in risk. Further, if during the term of the 2009 DAU an asset is included in the regulatory asset base:

(a) that does not clearly fall into one of the existing categories; or

(b) for other reasons, QR Network considers the asset has a different life than the agreed assumptions,

then QR Network will seek endorsement from the Authority of the specific life to apply to the asset/s as part of the annual roll-forward process.

Stakeholder Comments

The QRC did not support QR Network's proposal to impose a 20 year cap on the asset life of new capital expenditure, nor that QR Network apply revised asset lives to existing assets. On this, the QRC argued that:

> *'QR Network's proposal regarding accelerated depreciation is part of a package of proposals designed to address QR Network's perceived asset stranding risk. This risk is not only overstated in terms of probability of occurrence, but the level of focus on this risk also appears to be out of proportion to the potential impact of the risk..'*

and

> *'this proposal [to apply revised asset lives to existing assets] bypasses key deterministic assumptions used to develop the initial 2001 DORC valuation, and effectively seeks to re-open the initial DORC valuation process by abrogation of the agreed straight line depreciation methodology …while not reflecting the implications of this conclusion on the original asset valuation'. (QRC, sub. no. 38: 59)*

In addition, the QRC considered that any application of revised asset lives 'should only be applied to assets included after the commencement date of the current regulatory period' (1 July 2006) and that these lives should be independently assessed by the Authority.

Asciano did not support the introduction of a 20 year asset life cap, preferring that the existing 50 year cap remain in place:

> *'…the risks that QR Network discusses are real. However, there is a legitimate debate to be had on the extent of these risks… and by how much QR Network should be compensated for these risks. QR Network has not attempted to quantify the stranding risk nor has it provided justification as to why*

> *the 20 years asset life is an appropriate reward for this risk. As a result Asciano does not support the movement away from the current 50 year asset life truncation.' (Asciano, sub. no. 33: 44)*

In addition, Asciano supported retaining the existing Authority endorsed asset lives, rather than the new list of revised lives provided by QR Network, given the 'lack of justification of the asset life changes by either QR Network or its consultant' (Asciano, sub. no. 33: 44).

Stanwell noted that QR Network was looking to 'further reduce its risk through the proposed accelerated depreciation on new capital expenditure' and questioned whether 'this has already been factored into the new proposed rate of WACC which is 11.76%, up from 8.43% in 2006'. (Stanwell, sub. no. 42: 4).

Authority's Analysis and Draft Decision

The Authority has not sought to assess the matter of accelerated depreciation on its own, but rather has had regard to it as part of its overall assessment of the balance of the risks and rewards proposed by QR Network in the 2009 DAU.

In considering this matter, the Authority would first like to clarify its understanding of QR Network's proposal as it is apparent that stakeholders have been confused on the basis of the information in QR Network's 2009 DAU submission. As a result, stakeholders raised some concerns that can be addressed through clarifying QR Network's proposal.

Following discussions between the Authority and QR Network, the Authority understands that QR Network is seeking:

(a) *for pre-existing assets* – to continue to depreciate them at the same rate. Note that pre-existing assets refer to those assets that:

  (i) formed the initial opening asset value determined via a DORC valuation in 2001; and

  (ii) capital expenditure assets approved for inclusion into the regulated asset base over the 2001 undertaking period;

(b) *for assets accepted for inclusion into the regulatory asset base over the 2006 and 2008 undertaking period* – to cap the asset lives at 20 years or less in accordance with the list provided by QR Network as at 1 July 2009 (i.e. this refers to the 2005-06, 2006-07 and 2007-08 capital expenditure (and presumably 2008-09 once this capital expenditure has been approved);

(c) *for access charges during the 2009 undertaking* – recover revenues associated with depreciating the capital indicator over 20 years (as opposed to the 35 year life used for depreciating the capital indicator in the 2008 undertaking); and

(d) *for maintaining its regulatory asset base during the 2009 undertaking period* – calculate depreciation on assets approved for inclusion into the regulatory asset base at the lesser of 20 years or the rate proposed in QR network's revised schedule of asset lives.

The QRC had two key concerns in relation to QR Network's proposal, namely that QR Network was seeking to effectively re-open the initial 2001 DORC valuation by reducing the lives of those assets and was seeking to reduce the lives of other assets included in the regulatory asset base prior to the commencement of the 2006 undertaking.

The Authority has clarified with QR Network its position, and has reviewed QR Network's supporting financial model, and can confirm that QR Network has *not* sought to apply revised

asset lives to assets that formed part of the initial 2001 DORC valuation, nor assets included into QR Network's regulatory asset base prior to 1 July 2006. As such, the QRC's concerns in relation to this are addressed.

The remaining concerns raised by stakeholders deal with the overall risk/reward regime which the Authority will now address.

The Authority recognises that QR Network has proposed a significant capital expenditure program in order to provide increased and more secure capacity for its customers. Indeed, the capital expenditure proposed over the term of the 2009 undertaking of $1.35 billion represents around 42% of the opening asset value for the 2009 regulatory period, and this does not include significant allowances for expenditure on major projects such as GAPE, Wiggins Island or Surat Basin. As such, the Authority can understand, to an extent, QR Network's reasons for wanting to reduce the risk that it will not recover such costs.

However, at the same time, the Authority notes stakeholder's concerns that QR Network is seeking to reduce its overall exposure to risk, including by addressing its perceived asset stranding risk through accelerated depreciation, while at the same time, seeking to increase its return on assets through a higher WACC rate.

The Authority has considered this issue in detail (section 1.3) and, in particular, has sought to find a balance between QR Network's concerns about asset stranding risks and industry's concerns that QR Network is seeking returns in excess of that required given its risk profile, in particular given its risk mitigation proposals.

Given this, the Authority accepts, in part, QR Network's proposal to accelerate depreciation on new investments over the term of the 2009 regulatory period, including that it apply:

(a) a 20 year asset life to depreciate non-project specific capital expenditure included in the reference tariff calculations and recovered through access charges; and

(b) the revised list of asset lives be used from 1 July 2009 to depreciate specific capital expenditure projects accepted into its regulatory asset base during the term of the 2009 undertaking.

The Authority does not consider it appropriate to re-open the depreciation rates applied to capital expenditure undertaken during the 2006 and 2008 undertakings. QR Network undertook the expenditure on the basis of the depreciation profiles and WACC approved in those undertakings.

So far as the proposal for a maximum 20 year asset life for new investments is concerned, the Authority considers that this should be a rolling 20 year life and not a fixed 20 year life. That is, for the term of the 2009 DAU asset lives would be capped at 20 years in respect of capital expenditure undertaken during the 2009 undertaking period. However, in the absence of any evidence of a material increase in asset stranding risk, assets which had their otherwise useful lives capped at 20 years in the 2009 undertaking would have depreciation calculated in the next undertaking on the basis of their remaining useful life or 20 years, whichever is the lesser – in which case the depreciation profile would take a convex shape rather than a straight line. Should there be a material increase in the asset stranding risk, the appropriateness of the 20 year limit could be reviewed.

This approach still provides QR Network with cash flows earlier in the life of the asset than would otherwise be the case. It also ensures that, in the event that asset stranding does not eventuate, users of the network in 20 years time and beyond will make a contribution to the assets installed today but still in use at that time.

1.8 Operating Expenditure

Operating expenditure accounts for about 10% of QR Network's total forecast costs, comprising:

(a) system-wide and regional (SWR) costs; and

(b) an allowance for risk and self-insurance.

The Authority's consideration of SWR costs is set out below and its consideration of the risk and self-insurance allowance is considered in section 1.9.

System-wide and Regional Costs

Operating expenditure reflects costs associated with the day-to-day operation of the Queensland below-rail network, including costs for infrastructure management, train control, yard control / safeworking and corporate costs. Regional costs are a subset of these costs which can be directly attributed to the CQCR. Regional costs are allocated among the systems based on the relative asset value of each system and the relative number of train paths forecast for each system. System wide costs are more generally related to the running of the business, such as management overheads. Some of these system wide costs can be specifically identified as relating to the CQCR whereas others do not have a causal relationship and are allocated based on an calculated allocation.

In its 2006 access undertaking, the Authority approved regional and system-wide operating costs (SWR) of around $25 million per annum.

QR Network's Proposal

In its 2009 DAU, QR Network has proposed significant increases in its SWR costs (see Figure 1.2**Error! Reference source not found.Error! Reference source not found.** and Table 1.7); in particular, the average annual SWR cost allowance proposed in the 2009 DAU is about 130% higher than the average annual allowance for 2006 undertaking, as measured in 1 July 2009 dollars.

Figure 1.2 Forecast Total Operating Costs for the Coal Region by Cost Category ($2007-08)

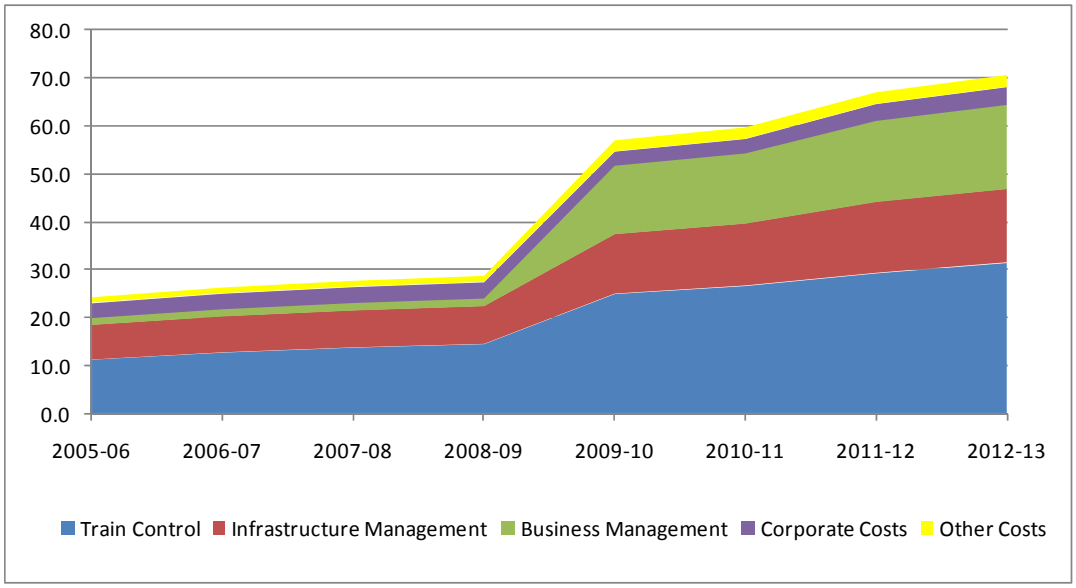


Table 1.7 Proposed Regional and System-wide Costs ($million)[a]

System	*2009-10*	*2010-11*	*2011-2012*	*2012-13*
Blackwater	24.2	24.8	26.6	27.5
Goonyella	24.5	25.4	27.8	28.6
Moura	4.6	4.7	5.1	5.3
Newlands	5.1	4.8	5.3[a]	6.0
Total	58.4	59.8	64.7	67.4

[a] July 2009 dollars.

In support of these increases, QR Network submitted that its business environment has changed significantly over the previous regulatory periods, particularly as a result of:

(a) the evolution of QR Network's existing structure towards a 'stand-alone' business;

(b) significant growth in network activity as a result of the demand for capacity in the light of the current coal boom; and

(c) continuing pressures on input costs.

First, QR Network submitted that the progressive separation of its business from other QR businesses has important implications for assessing its SWR cost proposal.

Specifically, QR Network argued that it has lost the benefits of economies of scope as there are no longer any jointly managed functions. As a result, elements of its operating costs have increased, as QR Network has now assumed responsibility for *all* below-rail operations

management, including train control. This role is in contrast to the previous structure where such operations were part of a larger operational area, and QR Network was responsible for only a share of the associated costs.

Given this functional separation, QR Network also argued that applying a stand-alone cost benchmarking methodology is inappropriate, as there are few, if any, below-rail infrastructure providers with a directly comparable business. As its business has evolved into a stand-alone rail infrastructure business, QR Network has argued that its actual costs provide a highly reliable basis for establishing reasonable forecast operating costs (QR Network, 2009 DAU, vol. 2: 124-125).

Second, QR Network has submitted that the demand for access, driven by the current coal boom, has required a significant growth in resourcing to meet customer requirements in a timely manner. For instance, a number of tasks have grown substantially since the 2001 undertaking, including planning and managing expenditure for system capacity, undertaking increasingly complex capacity analysis and managing regulatory reporting and compliance (QR Network, 2009 DAU, vol. 2: 127).

Third, QR Network argued that the current economic environment has placed pressure on input costs, particularly labour. Therefore, to retain a sufficient employee base for the anticipated volume activity, labour rates will need to continue to increase, consistent with market trends (QR Network, 2009 DAU, vol. 2: 128).

QR Network submitted that its SWR costs should be efficient and has proposed an efficiency target to apply to these costs. In lieu of a standard CPI-X adjustment, QR Network has proposed to index its SWR costs by the Consumer Price Index (CPI). In support of this proposal, QR Network submitted that, as the majority of its SWR costs are labour costs, and these costs tend to track above the CPI, this approach will result in it bearing costs arising from growth in labour rates over CPI during the regulatory period. QR Network expects the efficiency target to be at least 2.5% per annum (QR Network, 2009 DAU, vol. 2: 130). This is discussed further in section 1.11.

Stakeholders' Comments

Stakeholders identified several key concerns with QR Network's proposed operating costs.

The QRC argued that QR Network's operating costs should be determined by benchmarking; as such an approach helps ensure efficient operating costs that exclude costs associated with above-rail related activities and multi-traffic operations. On the latter point, the QRC submitted:

> *…business management costs required for QR Network's operations go well beyond those required for a stand-alone coal only network. A significant amount of effort is required due to the multi-traffic responsibilities of QR Network (QRC, sub. no. 38: 66).*

Therefore, QR Network's reliance on its actual costs does not provide a firm basis for achieving efficient costs and are likely to significantly overstate the costs of providing operating and maintenance activities relative to a coal only stand-alone network (QRC, sub. no. 38: 65-67).

Asciano agreed that benchmarking is critical to identifying efficient costs, with the caveat that QR Network's actual costs remain relevant but only serve as one of a number of reference points:

> *The determination of efficient costs is not an 'either or' decision (i.e. actual vs theoretical) as suggested by QR Network's submission, appropriate regulatory oversight will take account of all available data points.* (*Asciano, sub. no. 33: 47*).

The ARTC argued that QR Network may be correct in its assertion that there are no appropriate benchmarks and that, while the two businesses are very similar, each has evolved differently, leading to achievement of efficiencies in different ways and in different aspects of the business. Thus, it concluded that it would be difficult to make conclusions from a comparison between the two businesses (ARTC, sub. no. 32: 18).

In determining efficient costs, Asciano argued that QR Network's structural separation is not a legitimate reason for a cost increase. In this regard, Asciano submitted that it is inappropriate for access seekers to pay higher prices for increased costs resulting from the claimant's own choice, particularly as QR Network has not argued that the higher costs benefit users (Asciano, sub. no. 33: 47).

Consultant's Assessment

The Authority engaged consultant, GHD Pty Ltd (GHD) to assess the efficiency of QR's proposed operating costs.

GHD sought to benchmark QR Network's proposed operating costs against the most appropriate comparators, the ARTC and WestNet Rail, and in doing so noted that:

(a) WestNet is the operator of a stand-alone below rail freight network in Western Australia; and,

(b) ARTC is the operator of a stand-alone below rail coal network in the Hunter Valley in NSW (as well as the national standard gauge rail network)

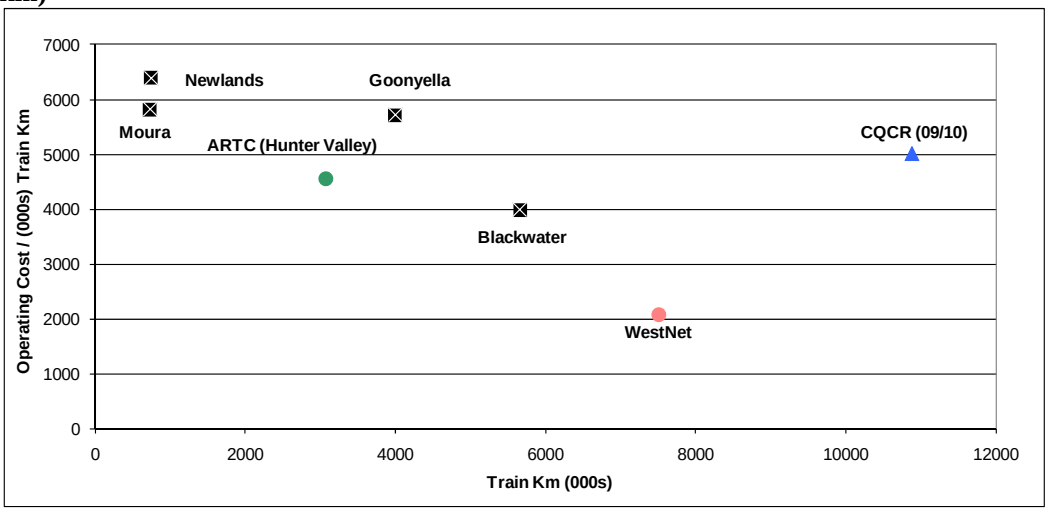
GHD approached this task cautiously noting that benchmarking provides a useful sensibility check, but that accurate predictions are hard to make because of differences in operational and system characteristics.

In this context, GHD noted that (see Figure 1.3):

(a) WestNet's operating costs are lower on a train km basis, but higher on a gtk basis which could be due to a greater mix of traffic and variability in traffic patterns and intensity; and

(b) CQCR appears to be comparable if not more efficient than ARTC's operation at Hunter Valley (which is probably more like the CQCR in terms of commodity and scale).

Figure 1.3 Operating Costs of Below Rail Infrastructure Operators ($2007-08 per Train km)



GHD identified a number of issues with QR Network's forecast operating costs.

GHD examined QR Network's stated reasons for increases in operating costs, namely increases in business activity and increases in labour force costs. On the basis of this review, GHD made a number of conclusions.

GHD concluded that QR Network's estimates are based on the view that no economies of scale are available from a more focussed organisation and that all functions previously performed by the integrated organisation during the term of the 2006 undertaking will need expanding upon. It is also GHD's view that projections beyond 2009-2010 are based on a linear model of activity – that increased task will 'automatically' result in increased resources being necessary, or in other words, there are no economies of scale available.

GHD noted that, while it is reasonable to expect an increased need for management and resources in a system that is experiencing both a reduction of surplus capacity and an increase in complexity, there is doubt over the plausibility of the substantial cost increases proposed by QR Network. For example, GHD argued that a 25% to 30% increase in traffic from the 2006 to 2009 undertakings represents a modest increase in the number of additional trains per day and, with no planned major infrastructure alterations or signalling expansions, would not require substantial increases in train control costs.

GHD said that QR Network has referred to the need for the coal business to have resources in place to enable an interface with, and to respond to, dangerous goods traffic for safety and other purposes. GHD commented that managing dangerous goods does not form part of a stand-alone coal business and so should not form part of the operating costs of the CQCR.

GHD questioned whether QR Network's claim for safe-working and yard control expenses should be included in operating costs. QR Network explained that, during construction, normal signalling and safe-working systems are either suspended, or labour intensive manual systems are introduced temporarily, to maintain train operations across the affected parts of the network. QR Network indicated that these costs are not included in capital works as they are incurred for operational reasons during construction. GHD advised that, although the costs are not large in comparison to overall operating costs, these costs would not be incurred if the capital works were not underway, and therefore should be classified as a capital expense rather than an operating cost.

GHD has recommended scaling down QR Network's proposed operating costs by 11%. GHD's proposal is based on:

(a) accepting QR Network's proposed regional costs;

(b) accepting the known CQCR related system wide costs;

(c) reducing the allocated system wide costs by the same amount that regional costs have increased;

(d) removing $1.88 million per annum relating to QR Network's claim for dangerous goods and safe-working/yard control operations;

(e) reducing the sum of (a) to (d) by 1% to take account of QR Network's June 2009 revised volume estimates.

Authority's Analysis and Draft Decision

QR Network has proposed a 130% increase in its operating costs for the 2009 DAU, following a 28% increase in the 2006 undertaking.

QR Network has attributed these latest increases in operating costs to:

(a) significant growth in network activity;

(b) upward pressure on labour costs; and

(c) the loss of economies of scope and scale due to new 'stand-alone' structure.

The Authority accepts that increases in network activity and labour costs will have the effect of also increasing operating costs. However, the Authority does not believe that QR Network has established a clear link between these reasons and its proposed cost increases. In particular, it is not clear why operating costs are increasing at a greater rate than volume increases and why QR Ltd would choose to make structural changes to its organisation that resulted in inefficiencies and cost increases to its customers.

The Authority also questions the reasonableness of relying on a costing manual methodology that was developed when QR Network was part of an integrated business and prior to the introduction of new accounting systems that make it much easier to identify costs, rather than having to rely on an allocation ratio. The Authority notes in chapter 3 of this decision that it intends to review the costing manual following the finalisation of the 2009 DAU.

The Authority's consultant GHD has proposed a number of changes to QR Network's proposed operating costs. These changes result in costs that are 11% below QR Network's proposed costs and 41% above the 2008-09 operating cost allowance.

The Authority accepts the recommendations of GHD and notes that the proposed operating costs are in excess of the costs based on a rolling-forward of the 2004-05 costs on the basis of both gtk's and inflation.

Table 1.8 QR Network's proposed 2009 DAU operating costs allowance ($million)

System	*2005-06*	*2006-07*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*	*2012-13*
Blackwater	12.4	13.2	13.6	14.2	24.2	24.9	26.6	27.5
Goonyella	13.6	14.3	15.2	15.7	24.5	25.4	27.7	28.5
Moura	3.4	3.7	3.8	4.1	4.6	4.7	5.1	5.2
Newlands	3.2	3.5	3.6	3.7	5.1	4.8	5.3	6.0
Total ($m)	**32.7**	**34.6**	**36.2**	**37.7**	**58.4**	**59.8**	**64.7**	**67.4**
Actual spend ($m)	35.6	46.6	49.1	-	-	-	-	-
GTKs('000)	58	70.7	74.6	76.8	67.6	80.0	82.9	82.2
Cost/GTK	0.56	0.49	0.49	0.49	0.86	0.75	0.78	0.82
Cost/GTK: Esc – CPI	0.56	0.58	0.61	0.62	0.63	0.65	0.67	0.68
Recommended Allowance	32.7	34.6	36.2	37.7	53.0	54.3	57.1	58.5
Recommended Cost/GTK: Allowance	0.56	0.49	0.49	0.49	0.78	0.68	0.69	0.71

The Authority proposes reference tariffs based on the Authority's recommended operating costs as shown in Table 1.9 below.

Table 1.9 Recommended operating costs excluding self insurance and GAPE ($,000)

	2009-10	*2010-11*	*2011-2012*	*2012-13*
Operating costs submitted by QR Network	58.4	59.8	64.7	67.4
Operating costs recommended by the Authority	53.0	54.3	57.1	58.5

1.9 Risk and Insurance

The Authority accepts that QR Network's revenues should include allowances for efficient insurance costs. In both the 2001 and 2006 undertakings, the Authority approved insurance costs as an 'annual risk premium' in QR Network's regulatory cashflows. The annual allowance in 2001 was set at $3.2 million, based on an allocation of part of the QR group's insurance costs to the network business plus the annual cost of infrastructure-related accidents.

For the 2006 undertaking, the Authority rejected QR Network's proposal to more than double the insurable risk allowance to $9.2 million. That claim had been based on an assessment of QR Network's exposure to a range of uninsured costs, much of which QR Network described as self-insurance. In rejecting QR Network's claims, the Authority's decision focussed on QR Network's self-insurance claims, in particular that QR Network had not adequately:

(a) identified the specific risks to be self-insured;

(b) quantified the expected incidence and costs of the risks by a method consistent with an actuarial assessment;

(c) confirmed there was a board resolution to self-insure;

(d) provided explicit confirmation that QR Network would not recover costs covered by self-insurance through other regulatory cashflows; or

(e) demonstrated that it had the financial capacity to assume the self-insured risks (QCA, July 2005: 54-56).

Rather, the Authority approved an annual risk premium of $4.8 million by escalating the insurance cost allocations in the 2001 undertaking to take into account QR Network's increased volumes, changes in its asset base and general increases in insurance costs (QCA, July 2005: 56-57).

QR Network's Proposal

As part of its 2009 DAU, QR Network proposed $6.8 million in risk and insurance costs for 2009-10, which represented a 32 per cent increase on the $5.2 million escalated annual risk premium for 2008-09 (see Table 1.10 for details).

Table 1.10 : QR Network's Proposed Claim for Risk and Insurance ($), 2009 DAU

	2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
Premium Allocation	965,383	992,404	1,132,146	1,172,908	4,262,841
ISR Allocation	1,815,441	1,866,274	1,918,530	1,972,248	7,572,493
Self-insurance Premium	3,979,700	4,165,700	4,397,631	4,563,256	17,106,287
Dewirement	72,722	76,352	92,196	95,516	336,786
Total	***6,833,246***	***7,100,730***	***7,540,503***	***7,803,928***	***29,278,407***

Source: QR Network, sub. no. 22: 16.

In addition, QR Network has sought:

(a) an annual allowance for managing a self-insurance program (i.e. $0.4 million, estimated as 10% of its self-insurance premium); and

(b) a one-off allocation of for implementing the self-insurance program (i.e. $0.4 million).

The *premium allocation* of $0.97 million is a proportion of the QR group's corporate insurance premium, which covers liabilities including personal injury claims and property and building insurance. It is arranged through QR Ltd's captive insurer *On Track Insurance*. QR Network estimated its share of the premium based on a number of factors, and the proportion of that which is assigned to coal is based on the same allocators used in determining system-wide and regional costs for the CQCR (see section 1.8).

The *ISR allocation* of $1.82 million is 25% of QR Ltd's Industrial Special Risks policy, also arranged internally through *On Track Insurance*, which covers litigation costs and liabilities for derailments of QR Group's rollingstock. QR Network argued it was difficult to allocate a proportion of this policy to the below-rail operations, but 25% was a 'reasonable risk premium for a stand-alone coal network provider' (QR Network, sub. no. 22: 8).

QR Network has also proposed a *self-insurance premium* of $3.98 million largely for uninsured costs in relation to derailments and bad weather. QR Network supported this claim with a

confidential report from Finity, an actuarial consultant. In that report, Finity calculated the self-insurance premium based on an actuarial analysis of data on derailments and weather-related events provided by QR Network. The estimated premium included $3.07 million in expected losses (largely from derailments and weather related events), plus a 10% allowance for administration costs, and a 20% allowance for cost of capital and profit. QR Network indicated that Finity's review:

> *... process has been severely hampered by data quality and information limitations, including the absence of comparable industry benchmarks to estimate the reasonableness of the costs and claims history provided to Finity by QR Network (QR Network, sub. no. 22: 6).*

QR Network also estimated an annual *dewirement* cost of $72,722 for incidents that damage the overhead wires. This is also effectively a self-insurance cost, but was estimated by QR Network as Finity's estimate did not include a premium for dewirements – Finity suggested dewirement costs be treated as maintenance costs.

QR Network proposed that the cost of catastrophes, not addressed through policies with *On Track Insurance,* be covered by pass-through provisions.

While it is apparent that QR Network has yet to establish a scheme to manage its self-insurance costs, it has set out a series of steps to implement a self-insurance program, including (QR Network, sub. no. 22: 17):

(a) changing procedures to ensure the full and accurate costs of self-insured losses are identified and claimed by operational units;

(b) acquiring an appropriate claims management system, or expanding an existing one;

(c) expanding the claims management team;

(d) establishing policies, processes and procedures for the management of claims; and

(e) changing accounting systems to establish a self-insurance fund and separate expense items for self-insurance.

Stakeholder Comments

Stakeholders said QR Network had neither provided sufficient public information on its proposed risk and insurance claim, nor met the requirements of the Authority's 2005 decision.

The QRC said it:

> *... considers that QR Network's approach has not satisfied QCA's previously stated criteria. QRC supports the QCA commissioning an independent actuarial assessment to test the reasonableness of the increase in QR Network's insurance costs (QRC, sub. no. 38: 74).*

The QRC also said:

(a) it wanted to know whether different types of risk mitigation strategies had been considered, including cost pass-through arrangements, or including derailment or dewirement costs within maintenance costs;

(b) the costs of maintenance and insured events should be separately identified to ensure there was no double recovery;

(c) it wanted to understand what claims had been made, and the frequency of the events since 2001; and

(d) there had been no justification provided for the allocation to QR Network of actual insurance premiums for the corporate policy and the industrial special risks policy (QRC, sub. no. 38: 74).

Asciano said it accepted that it was appropriate for QR Network to be compensated for insurance against the risks it had identified. However, as Asciano did not have access to the Finity report, it would rely on the Authority to ensure the estimates reflected efficient costs. Asciano added that:

> *Of greater concern is QR Network's non compliance with the QCA's condition for allowing QR Network to include the costs of self insurance set out in the QCA's decision in December 2005. Indeed QR Network seems to be proposing continued non compliance. Asciano believes that any continued material non-compliance would constitute a breach of the undertaking (Asciano, sub. no. 33: 48).*

Authority Consultant's Analysis

The Authority engaged PricewaterhouseCoopers (PwC) to assess whether QR Network's claim for risk and insurance was cost-effective and reasonable. PwC's review was based on Finity's and QR Network's reports and on answers to its questions.

In general PwC found that given 'the Finity estimate is otherwise likely to be understated, I consider that the total of the proposed claim seems reasonable.'(PwC, November 2009: 21). In particular, it found that:

(a) in relation to QR Network's allocation of QR Ltd's insurance expenses:

  (i) the calculation and allocation of the premium for general corporate insurance through captive insurer *On Track Insurance* seemed reasonable;

  (ii) it was reasonable to make an allowance for the cost of liability insurance for above-rail damage, and QR's allocation of the ISR premium to approximate that amount did 'not seem implausible' given the uncertainties involved in estimating the cost;

(b) in relation to QR Network's estimated self-insurance costs:

  (i) notwithstanding issues with the data, Finity's estimate of the risk premium for derailments, weather-related events and below-deductible losses on public liability claims was reasonable, as was an additional allowance of 10% for administration;

  (ii) QR Network's claim of 20% of the risk premium for cost of capital and profit was too high, given QR Network had 'less need to effect reinsurance' as large claims were passed through to customers, so a more appropriate capital and profit allowance would be 10%;

  (iii) setting up a self-insurance fund with the features detailed in Finity's report 'should encourage greater discipline in the identification and management of losses' and facilitate the preparation of future undertakings;

  (iv) QR Network had double-counted a 10% claim for administration costs for self-insurance, by incorporating it in the risk premium calculated by Finity, and as a part of the cost claim for implementation of the self-insurance; and

  (v) 'it would be good corporate governance for the board to acknowledge the self-insurance of the risks covered in the DAU'.

The Authority notes that Finity's view on the appropriate risk premium for cost of capital and profit was formed before QR Network proposed to include a pass-through for force majeure events.

Authority's Analysis and Decision

QR Network's risk and insurance claim in the 2009 DAU has addressed some of the Authority's earlier concerns by:

(a) providing an actuarial assessment of its proposed self insurance costs; and

(b) identifying the specific risks to be insured.

However, only a small part of the claim represents self-insurance, defined as QR Network assuming uninsured risks over which it has no control. QR Network's proposal is divided into three main elements, namely:

(a) allocations of premiums for corporate and ISR policies arranged through an internal insurer, which are similar to premiums that would otherwise be paid to an external provider of commercial insurance;

(b) a cost estimate for derailments and weather related events (i.e. the self-insurance premium) which has some of the characteristics of self-insurance, but is akin in other respects to a forecast maintenance cost; and

(c) a pass-through arrangement for costs from large events, which QR Network expressly singles out as risks it will *not* self-insure.

All three of these categories represent reasonable inclusions in a risk and insurance program. However, QR Network has made some errors in its assumptions and calculations. The Authority therefore proposes to reject the insurance cost claim of $29.3 million, and require QR Network to include a claim of $26.7 million in its resubmitted 2009 DAU. The reasons for this are set out below.

Insurance Premium and ISR Allocations

The Authority accepts that it is reasonable for QR Network to claim as part of its costs premiums paid to external insurers, secured on efficient commercial terms. QR Network has not included any such premiums in its risk and insurance claim. But 40% of the total claim is made up of allocations of premiums paid to a captive insurer, *On Track Insurance*, owned by QR Ltd.

QR Network has argued that it is more efficient to insure through *On Track Insurance*, because the captive insurer can buy coverage through direct arrangement with re-insurers, without an insurer acting as an intermediary, and because of the economies of buying as a group (QR Network, sub. no. 22: 3). The Authority accepts that this is a reasonable argument.

QR Network has split its allocated premiums into two separate estimates, which cover different parts of its insurance requirements, namely:

(a) the premium allocation allots QR Network's share, and then CQCR's share within that, of a variety of general corporate insurance costs, ranging from directors and officers liability to coverage for damage to buildings and structures (QR Network, sub. no. 22: 4); while

(b) the ISR allocation covers QR Network's liability to rail operators where any loss, damage or injury results from QR Network's wilful default, any deliberate or negligent act or

omission, or a failure of QR Network to perform its obligations under the rollingstock interface standards (QR Network, sub. no. 22: 7-8).

Both allocations are for policies through the captive insurer owned by QR Ltd. However, PwC has advised that the premiums are set on an arms-length basis, and the calculation basis and adopted estimates seemed reasonable (PwC, November 2009: 18-19).

PwC has also reviewed the premium allocation, both to QR Network and within QR Network to coal, and indicated that the resulting premium estimate was reasonable. The Authority therefore accepts QR Network's proposed premium allocation of $0.97 million.

Similarly, PwC said the ISR allocation was 'not implausible' as an estimate of an appropriate premium to cover QR Network's liability to operators.

QR Network said that it did not have a claims history for liabilities to third-party operators because, until September 2008, it was structurally part of the same business as QR National, the only operator on its tracks. It therefore did not make claims against itself. The structural separation of QR Network that took effect in September 2008 meant it now needed to estimate the cost of premiums to cover its liability. Further, above-rail operator Asciano began operating coal trains in central Queensland in April 2009, and the Authority understands the ISR allocation is from premiums that were established before QR Network had that exposure to a non-QR group operator.

Therefore, based on PwC's advice, and on the overall background to the establishment of the premium, the Authority proposes to accept the ISR allocation of $1.82 million as a reasonable estimate.

Self-Insurance

Derailments account for 86% of the forecast losses covered by the self-insurance part of QR Network's risk and insurance claim. The remainder is made up of weather-related losses (11%), and the cost of claims which fall below the deductible on a public liability policy with an external insurer (3%).

Table 1.11 : Self-insurance premium estimated by Finity ($million)

	2009-10	*2010-11*	*2011-12*	*2012-13*	*Total*
Self-insurance components (losses)					
Derailments	2.65	2.76	2.92	3.03	11.37
Weather-related losses	0.32	0.34	0.36	0.38	1.40
PI – below deductible	0.10	0.11	0.11	0.11	0.43
Total losses (risk premium)	***3.07***	***3.21***	***3.39***	***3.52***	***13.20***
Allowances					
Expenses (10% allowance)	0.31	0.32	0.34	0.35	1.32
Cost of capital, profit (20% allowance)	0.61	0.64	0.68	0.70	2.64
Total Allowances (30%)	***0.92***	***0.96***	***1.02***	***1.06***	***3.96***
Total premium	**3.99**	**4.18**	**4.41**	**4.58**	**17.15**

Source: QR Network, sub. no. 22 and PwC, November 2009: 12.
Note: The notional premium differs from the Self-insurance premium in Table 1.10 due to rounding.

The derailment claim of $2.65 million in 2009-10 is based on an actuarial based estimate of the expected derailment costs over the term of the undertaking. This methodology has been used

because, while derailments are an expected and reasonable cost, there is considerable uncertainty about what that cost will be.

In many respects, the work done to restore rail services and repair infrastructure after a derailment is similar to the maintenance tasks performed by QR Network, albeit with less scope for forward planning and scheduling. However, QR Network is 'self-insuring' to the extent that it will bear any derailment costs that exceed the estimate provided by Finity. This is offset by the fact that QR Network will benefit if its derailment costs are lower than the Finity estimate.

In considering this matter, the Authority contemplated, and rejected, the option of using an unders and overs mechanism to address these variances as it considered that a full pass-through of actual derailment costs would create the wrong incentives. QR Network is best able to manage the frequency and severity of derailments that have a below-rail cause, and therefore it should be exposed to the variance in cost. This gives QR Network an incentive to reduce the frequency and severity of derailments.

The question then becomes: how much should access holders and customers pay as a premium to QR Network for absorbing the risk that derailment costs will exceed Finity's estimate?

As QR Network observed, the damage to below-rail infrastructure from a single derailment is unlikely to exceed the $8 million pass-through threshold that Finity used in establishing its actuarial forecasts. Indeed, QR Network has indicated that 'the maximum probable loss expected by derailment incidents in the CQCR by QR Network is not material' (QR Network, sub no. 22: 15-16).

Further, specific pieces of infrastructure whose value exceeds the $8 million pass-through threshold, and which might be damaged in a derailment, are already covered by the QR group's insurance policies. So, in general, the risk to QR Network is that the frequency of derailments will increase, rather than that the cost of a particular derailment will be very large.

PwC said the $2.65 million derailment claim was based on reasonable assumptions, and 'not obviously under or over-stated'. It also said the $0.32 million estimate for weather-related losses was likely to be understated, and the methodology and assumptions for the $0.10 million below-deductible losses estimate were reasonable.

In considering the administration of the self-insurance scheme, the Authority accepts PwC's advice that:

(a) the $420,000 implementation costs 'do not look unreasonable';

(b) a 10% allowance ($0.31 million) for self-insurance administration costs is consistent with insurance industry practice;

(c) it is not appropriate to claim that 10% allowance for self-insurance administration costs twice for the same insured risks, by including it in the total premium assessed by Finity for self-insurance costs and adding a further 10% on top of that total premium; and

(d) the 20% allowance ($0.61 million) for cost of capital and profit reflects the costs faced by a commercial insurer (which would have to take out reinsurance to cover the risk of very large claims) and, as QR Network is protected by a cost pass-through, a capital and profit allowance of 10% ($0.31 million) is more appropriate.

Accordingly, the Authority considers that $0.62 million ($0.31 million for administration costs and $0.31 million for capital and profit) of QR Network's claimed $0.92 million in self insurance management costs in 2009-10, as assessed by Finity, is reasonable.

In its 2005 decision, the Authority was clear on what it considered was a necessary set of arrangements for implementing a self-insurance program. Despite this, it is apparent that QR Network has again sought to include self-insurance costs and to cover the management of a self-insurance scheme that has not formally been established.

Several issues remain unresolved, including that QR Network has not:

(a) put in place a self-insurance function to track the below-deductible costs of derailments, weather-related events and other incidents;

(b) put in place a board resolution to self-insure; or

(c) demonstrated that it has the financial capacity to assume the self-insured risks.

The Authority is prepared to accept the reasonableness of the self-insurance risk premiums and is prepared to accept them into the regulatory cost base for the CQCR.

In contrast, while the Authority accepts the reasonableness of costs of administering the self-insurance scheme ($0.31 million, included in the Finity estimate), it is not prepared to accept them into the cost base for the CQCR tariffs until such time that QR Network has demonstrated that the self-insurance function has been established.

In this respect, it is noted that QR Network has asked for a premium, on top of the actuarial estimate of the cost of the future events, to reflect the risk it is taking on in self-insuring the derailment and weather-related costs. Therefore, it is only reasonable that access holders and their customers receive the comfort of a resolution from QR Network's directors that the business will cover those costs.

The Authority therefore maintains its requirements that QR Network provide a board resolution to self-insure the events identified in Finity's report, and that it demonstrate it has the financial capacity to cover those future events.

If QR Network wants to have this premium incorporated in the calculation of reference tariffs in the 2009 access undertaking from the commencement date, QR Network must provide that resolution, as well as show that it has put in place a self-insurance function, by no later than 31 December 2010. The 10% premium for self-insurance costs, and the $420,000 one-off implementation allowance, will be applied from the date at which QR Network can demonstrate all of those measures have become effective.

QR Network can submit its evidence of compliance with the Authority's self-insurance requirements as a review event as set out in revisions to schedule F, Part A of the undertaking that the Authority has included in this draft decision (see section 6.17). The requirements the Authority has included in the drafting are a combination of the steps set out by QR Network as necessary for establishing a self-insurance function (QR Network, sub. no. 22: 17), and requirements the Authority has repeated many times, including in its draft decision on the 2005 DAU.

In addition, in its September 2008 submission, QR Network accepted the possibility that there could be some double counting between the self insurance premium and maintenance costs associated with train derailments. It said that a self-insurance program would need to adjust costs to reflect maintenance tasks that were completed as part of repairs. QR Network said, for example, that there might be derailment-related replacement of a turnout that was earmarked for maintenance. In such a case:

> *Clearly, in capturing the incident costs, the 'claim' needs to recognise this avoided cost and only compensate for costs that are incremental to the forecast maintenance costs (QR Network, sub no. 22: 17).*

QR Network has also provided to the Authority confidential documents which demonstrate that the costs of consumables and plant and equipment related to derailments and other self-insured events are recorded separately from maintenance in its accounts.

It has, however, shown that some there has been some double-counting of labour costs that are already included in the maintenance forecasts, where 'coal gang labour' has been used to restore the network after derailments.

QR Network has said that it will submit revised self-insurance costs to reflect the changes in central Queensland volume forecasts. The Authority requires that these resubmitted costs also demonstrate clearly that QR Network has taken measures to remove any double-counting of this 'coal gang labour' cost.

In addition, and more generally than the above, the Authority requires that QR Network report on the effect on its planned maintenance of derailments, as there is a concern that planned maintenance may be deferred as a result of derailments, giving QR Network an unintended benefit if planned maintenance is not sustained. The necessary clauses are set out in decision 9.2.

The Authority also notes that QR Network has included in its claim a $72,722 allowance for dewirement costs, which QR Network calculated itself after Finity declined to estimate a risk premium. The Authority is prepared to accept this claim, provided QR Network demonstrates that it is not double-counting its costs relating to dewirements. The Authority anticipates that, once QR Network creates a formal self-insurance scheme, it will in the future gather information sufficient to make a proper actuarial estimate of the dewirement allowance.

Catastrophe Pass-Through

QR Network said that, while some weather-related events were covered by its self-insurance risk premium, and other catastrophe-related costs could be claimed through *On Track Insurance*, this coverage did not include a range of potential costs arising from a force majeure event such as an earthquake or tropical cyclone. For example, should QR Network be required to install temporary infrastructure while it repaired the damaged network, these costs would not be covered by its insurance arrangements.

QR Network therefore proposed a pass-through provision for 'all business interruption costs, associated with earthquakes and catastrophic risks'. It said catastrophic risks included, but were not limited to: cyclones, earthquakes, war and other perils (QR Network, sub. no. 22: 14-15).

QR Network subsequently said it had not provided a mechanism in the undertaking to implement such a pass-through, and suggested that a 'review event' be added to allow it to claim catastrophe-related costs.

Such pass-through provisions for costs beyond a regulated entity's control are consistent with decisions by the Authority and other regulators across a variety of industries.

The Authority therefore approves the creation of a review event for costs greater than $1 million arising from catastrophes, as the review event provisions give the Authority sufficient discretion in assessing such a claim. For a discussion of the Authority's preferred treatment of review events, see section 6.17.

Decision 1.1

The Authority rejects QR Network's proposed risk and insurance allocation of $29.3 million, and requires that QR Network reduce its claim to $26.7 million, based on the changes detailed in this section 1.9.

Decision 1.2

The Authority requires QR Network to include a review event for costs greater than $1 million arising from catastrophes, as set out in decision 6.22.

1.10 Maintenance Costs

Maintenance expenditure covers a range of activities, from routine activities (e.g. inspections, employing inertial cars to assess track geometry and manual maintenance of the vegetation around easements) to major capital-intensive activities such as rail grinding, mechanised resurfacing and ballast undercutting. As the costs associated with the majority of maintenance activities are observable, they can be directly attributed to the relevant line section.

In reviewing the initial (2001) QR undertaking, the Authority undertook a detailed review of maintenance costs for the CQCR. As part of that decision, the Authority included a productivity factor that sought to reduce QR's maintenance costs in real terms by 15% over the term of the undertaking. For the review of the 2006 undertaking, the Authority's consultant concluded that, on a normalised (gross tonne kilometre) basis, QR's proposed maintenance costs were on a whole around 40% lower than those used for the 2001 undertaking.

The Authority largely approved the submitted maintenance costs of around $70 million per annum. On this occasion, the Authority did not consider it necessary to include a productivity factor.

However, almost immediately upon the approval of the 2006 undertaking, QR indicated that the maintenance cost forecasts were much lower than their actual cost. For instance, QR estimated that the maintenance cost shortfall in the first two years of the 2006 undertaking (i.e. 2005-06 and 2006-07) would be around $52 million.

As a result, in 2007, QR submitted a draft amending access undertaking to increase reference tariffs on the basis of a 25% increase in forecast maintenance costs, to around $100 million per annum. These forecasts were based on a roll-forward of the 2004-05 maintenance costs (from the 2001 undertaking) adjusted for volume increases, input cost rises and increased cost of ballast undercutting – QR did not seek to recover the past under-recovery or the costs of changes in scope to maintain service quality in the face of higher volumes.

In support of its proposal, QR submitted that its 2006 maintenance forecasts grossly under-estimated maintenance expenditures incurred to date and that it was not commercially viable for it to continue to absorb the additional costs.

At that time, QR expected that it would under-recover its forecast maintenance costs by around $12 million in each of 2007-08 and 2008-09. As it turned out, these under-recoveries were around $13 million in 2007-08 and $24 million in 2008-09.

QR Network's proposal

In its 2009 DAU, QR Network has proposed further significant increases in its forecast maintenance costs. The proposed increase to $167 million for 2009-10 reflects an increase of about 63% over the costs approved by the Authority for 2008-09. By the final year of the 2009

undertaking, QR Network forecasts maintenance costs increase by a further 24%, or $40 million to $207 million (see Table 1.12).

For the purpose of the 2009 DAU, QR Network undertook a comprehensive 'bottom-up' review of its maintenance program, including objectives, activities and the proposed maintenance approach (i.e. type and intensity of maintenance). Outcomes from this part of the review further informed QR Network's forecasting approach relating to both scope (i.e. level) of activity and unit rates underlying the cost estimates (QR Network, sub. no. 11: 112-113). QR Network has also claimed previously unrecognised costs in asset charges and margins.

QR Network has submitted that the significant 'step' increase from the 2006 undertaking is attributable to several factors, namely that the 2006 undertaking allowance under-estimated actual costs and that there has been a significant increase in QR Network's actual maintenance costs since then. In regard to the latter, QR Network has attributed the primary drivers of the aggregate jumps to:

(a) a significant increase in QR Network's regulated asset base (RAB) (from approximately $2.4 billion to $3.2 billion);

(b) a significant increase in the scope of maintenance required to accommodate the increase in traffic volumes and the subsequent need to maintain levels of infrastructure quality;

(c) the continued growth in labour costs and other key consumables like fuel, accommodation and ballast;

(d) a significant expected re-capitalisation of QR Services' major maintenance equipment in order to provide for the increased scope of maintenance without significantly increasing the need for track possessions.

QR Network has also proposed to escalate the maintenance cost allowance not by CPI but by a maintenance cost index (MCI) that is based on a weighted average cost of separate input price indices (see section 6.15).

Table 1.12 : QR Network's proposed UT3 maintenance costs allowance ($m nominal dollars)[a]

System	*2009/10*	*2010/11*	*2011/12*	*2012/13*
Blackwater	66	77	83	86
Goonyella	78	89	101	101
Moura	13	13	14	15
Newlands	10	8	5	5
Total	**167**	**187**	**203**	**207**

[a] *Forecast costs exclude the GAP expansion,*

Source: QR Network, sub. no. 11: 119

From the above table, it is apparent that the largest increases are forecast to occur in the Blackwater and Goonyella systems, which QR Network said is a result of the increase in ballast undercutting.

QR Network provided detailed scoping data for several key maintenance activities, including ballast undercutting, mechanised resurfacing and rail grinding in its scoping papers (released in 2008 for consultation with stakeholders). However, QR Network claimed confidentiality on the detailed costing data for these (and other) activities as well as on related information in its 2009 DAU.

In support of its maintenance cost proposal, QR Network engaged WorleyParsons to review, *inter alia*, the reasonableness of both the scope and the maintenance cost estimates proposed for the 2009 DAU. In undertaking an international benchmarking review in comparison to other heavy haul operators, WorleyParsons concluded:[7]

> *The Consultant conducted an international benchmark on engineering maintenance costs and found that QR costs were neither the highest or the lowest.....In general costs were calculated as being comparative in international benchmarking, with allowances in some items for specific North Queensland conditions (QR Network, 2009 DAU, vol. 2:120).*

Stakeholders' Comments

Stakeholders concerns on QR Network's maintenance proposal focussed on to information transparency and cost reasonableness.

Overall, stakeholders were of the view that QR Network has claimed confidentiality over its proposed maintenance costs inputs and therefore, are unable to comment on its reasonableness. Hence, the industry looked to the Authority to conduct a review of QR Network's claims to ensure that the costs are efficient and developed on a stand-alone basis for the coal carrying trains services.

The QRC raised particular concerns with QR Network's proposed margins, in particular:

> *QR's maintenance margins have not been released to stakeholders within the supporting documentation provided by QR Network. It is difficult to understand how these margins would be confidential if these were efficient (QRC, sub. no. 38: 68).*

QRC indicated that these matters should be addressed to avoid providing perverse incentives whereby QR Ltd would be encouraged to shift service functions of QR Network to its related parties in order to obtain a margin above efficient costs. The QRC added that the margins can be efficient only if:

- *the costs of the QR related service provider are efficient; and*
- *the relativity of costs excluded from the direct costs of the service provider (such as return on assets) to the costs included (labour materials etc) is consistent with the relativity which applies for the 'typical' contractor(QRC, sub. no. 38: 68).*

Asciano provided in principle support to QR Network's proposal of developing maintenance practices that minimise service disruptions but in turn lead to higher costs. However, Asciano was unable to comment on the efficiency of the proposed costs in the absence of any available justification for the increase in costs. That said, Asciano noted that the increase in maintenance costs is substantial and requires a rigorous and thorough review by the Authority (Asciano, sub. no. 33: 50).

ARTC supported QR Network's claim that that there are significant cost pressures in rail infrastructure maintenance and construction sector. It stated that:

> *In ARTC's experience the maintenance practices required to deliver optimal supply chain outcome can increase maintenance expenditure by up to 60%.....The QCA needs to satisfy itself that the*

[7] WorleyParsons' associates for this project included Transportation Technology Center Inc.,Aitken & Partners.

> *magnitude of the increase proposed by QR Network are reasonable and efficient in the context, giving due consideration to the need to optimise supply chain outcomes such as throughput and reliability in a controversial environment (ARTC, sub. no. 32: 19).*

Ensham said it was concerned that QR Network may be over recovering as maintenance costs as they comprise a large portion (about 50%) of the proposed reference tariff increase in the Blackwater system (Ensham, sub. no. 36: 3).

QR Freight submitted that QR Network should provide greater transparency in its maintenance schedule and demonstrate to its customers the resultant benefit for the supply chain (QR Freight, sub. no. 37: 31).

Consultant's Assessment

The Authority engaged consultant GHD Pty Ltd (GHD) to provide advice on the efficiency of the QR Network's proposed maintenance costs.

In assessing QR Network's maintenance cost proposal, GHD noted that QR Network has undertaken its cost assessment on the basis of a 'bottom-up' methodology in the context of coal supply chain requirements. In this regard, the approach takes into account more defined work programs, possession requirements, shifts, and production rates. Consequently, GHD considered QR Network's estimates to be more robust than estimates submitted in previous undertakings. At the same time, GHD also noted that the estimates included previously unclaimed costs, namely asset charges and an operator margin.

As a starting point, GHD undertook a 'high level' review that benchmarked maintenance cost estimates for key activities (e.g. ballast cleaning, rail grinding, trackside systems, etc.) against those of similar below-rail infrastructure operators. GHD reviewed QR Network's operations with below-rail infrastructure operators ARTC and WestNet.

While GHD expected more efficient unit costs given the scale of QR Network's operations, it noted that this might be offset because of the capacity constrained environment in the CQCR. As result, QR Network might have fewer windows to undertake maintenance tasks which have to be performed in a more intensive and expensive way.

Based on its review of QR Network's proposals, GHD indicated that:

(a) there has been a step increase in the 2009 undertaking's forecast maintenance costs as a result of the unreasonably low forecast costs in the 2006 undertaking;

(b) maintenance costs over the term of the 2009 undertaking largely grow in line with volumes, except for ballast cleaning costs (see Figure 1.4);

(c) QR Network has proposed a number of new maintenance procedures which are initially capital intensive but which should have been introduced much earlier (e.g. one pass grinding was introduced into North America in the 1990s);

(d) QR Network's maintenance costs are on a par with other networks (e.g. the ARTC's Hunter Valley coal network), if ballast cleaning costs are set aside; and

(e) QR Network has proposed significant increases in major program maintenance but has (pessimistically) proposed trend increases in routine maintenance.

While GHD has assessed all the major maintenance tasks, it particularly focused on ballast treatment. GHD (and QR Network's advisors WorleyParsons) noted that QR Network has a significant issue with coal fouling of the ballast. GHD noted that:

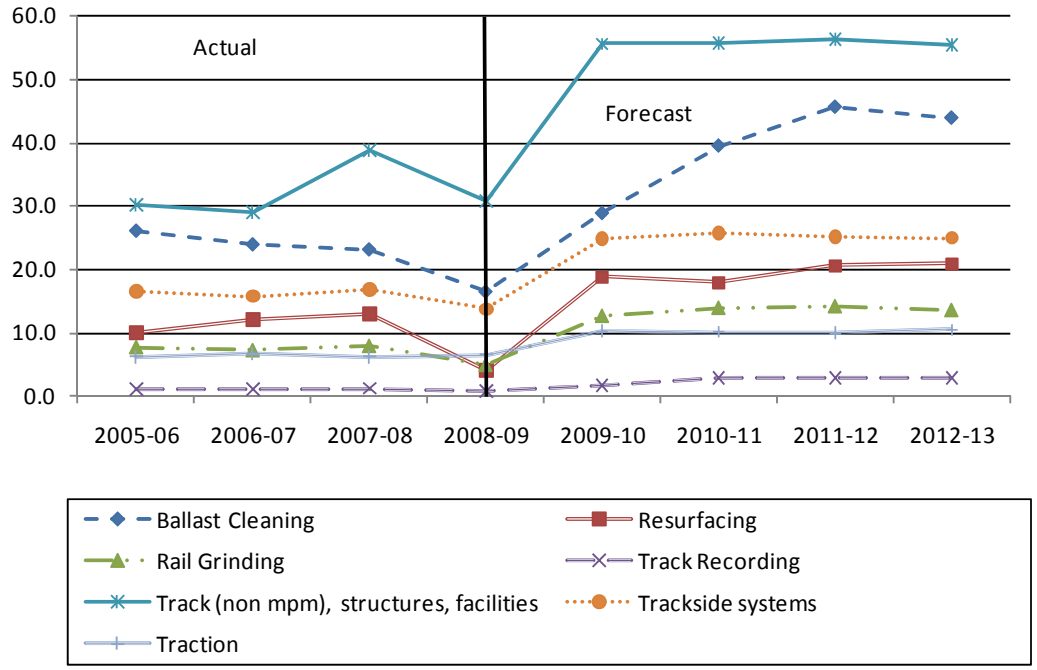
(a) around 25% of QR Network's forecast maintenance costs are related to removing coal from the track ballast;

(b) QR Network's ballast cleaning cost are 350% more expensive (per gtk) than on the ARTC's Hunter Valley coal network;

(c) unlike other maintenance categories, ballast cleaning costs over the term of the 2009 DAU rise faster than tonnage – QR Network have denied that this increase is "catch up" but they are also unable to say when a steady state situation will be attained; and

(d) QR Network's overall maintenance costs (per gtk) would be lower than the ARTC's and similar to Westnet's if it had their ballast treatment costs. QR Network's ballast treatment demands do not correlate with traffic.

Figure 1.4 : Total forecast maintenance costs for the CQCR by cost category ($ 2007-08)



In this context, GHD's principal concern was that, despite the substantial increase in ballast treatment scope and costs, there is no reduction in other areas of maintenance, including routine maintenance and corrective maintenance.

Based on its review, GHD proposed that:

(a) adjustments should be made to routine maintenance and resurfacing costs. In particular, the recommended track and structure routine maintenance be held constant at 2009-10 levels.

(b) the margin was inappropriately applied to direct costs like direct consumables (rail, ballast etc.), indirect consumables (e.g. fuel) and asset charges (e.g. depreciation and cost of debt). In particular, the margin on materials purchase was overestimated.

(c) in the absence of any evidence of a reduction in unit maintenance costs due to operational efficiencies over the term of the 2009 DAU, adjustments should be made to the "automatic" increase in labour costs.

(d) MCI-X incentive mechanism should be adopted to provide incentives for productivity improvements (see section 1.11).

Authority's analysis and draft decision

The Authority is encouraged by the underlying maintenance program proposed by QR Network as part of its submission on the 2009 DAU. The proposed maintenance regime is based on:

(a) a structured program of planned track closures and associated works; and

(b) adopting new strategies, for QR Network at least, to:

  (i) identify early any possible deterioration in track conditions before it becomes a serious maintenance issue; and

  (ii) reduce the impact of maintenance works on train operations.

This is quite different to the approach QR Network described as part of its 2007 maintenance cost DAAU, where short term rectification of maintenance issues (e.g. chase tamping) was the strategy preferred over a preventative maintenance regime.

The Authority accepts that such a strategy will involve the re-capitalisation of maintenance equipment, which will lead to an increase in maintenance costs.

However, the Authority also expects that such a strategy will result in efficiencies in routine maintenance tasks. If this was not the case, the wisdom of adopting these capital intensive maintenance strategies would have to be brought into question.

The Authority, therefore, accepts the advice of GHD that routine resurfacing and maintenance costs should be held constant over the term of the 2009 undertaking.

The Authority also questions QR Network's use of margins over the top of actual costs in developing its maintenance costs forecasts. The Authority accepts that, in a competitive environment, maintenance service providers would earn a margin over costs. However, that is in an environment where the provision of maintenance services is acquired through a competitive tender process. There can be some confidence therefore that the contract price is efficient.

In contrast, QR Network has not subjected its maintenance contract to a tender process. There is therefore, less confidence that QR Network's proposed costs are efficient. The Authority therefore accepts GHD's proposal to reduce the margin on certain cost items. The Authority also accepts GHD's proposal to rely on constant unit labour costs in developing the maintenance costs forecasts. As the Authority is proposing to accept QR Network's proposed use of the MCI to index maintenance costs, this should be sufficient to compensate for changes in labour costs.

The Authority also has particular concerns in relation to QR Network's proposed ballast cleaning costs.

It is evident from the material provided to the Authority by QR Network (including the review by its advisors Worley Parsons) and by the Authority's consultant, GHD, that coal fouling of the ballast in central Queensland remains a significant issue.

Excessively fouled ballast has been an issue since the first undertaking when the Authority had to optimise the current depreciated replacement cost of the track, by deducting from it the value of the maintenance needed to be undertaken to address the excessive fouling.

Fouled ballast adversely affects drainage which increases the need for routine maintenance and, eventually, requires the coal to be removed. This adds to the direct cost of maintaining the network and adversely impacts on the performance of the network because of the need for increased track possessions.

Fouled ballast also raises environmental concerns on at least two levels, namely:

(a) disposal of the fouled ballast and its impact on the environment prior to its removal, if ever: and

(b) coal dust and its implication for air quality, particularly in more urban areas.

QR Network has indicated in the past that:

(a) 40% of the contamination is due to ballast ploughing at the unloading stations, where the coal is not removed sufficiently quickly from underneath the trains by the dump station conveyors and so it builds up and, as the train continues forward, it can settle on the horizontal sections of the wagons and fall off once the train continues its journey; and

(b) 50% of the contamination relates to coal spilling from the wagons, whether that be off the top of over-filled wagons or through leaky bottom opening doors.

Since that time, however, there has been no apparent change in QR Network's handling of the matter. No action appears to have been taken to reduce overfilling of wagons, add any form of cover (chemical or other) to the wagons, address leaky bottom dump doors or clean away contamination caused by ballast ploughing (e.g. by washing the undersides of the wagons).

It is accepted that not all of these (and no doubt other) possible approaches to handling the issue are in QR Network's direct control. However, as the owner of the infrastructure, QR Network has a responsibility to ensure that its ballast is not excessively fouled by users.

This raises the issue of why QR Network should be compensated for costs it could have avoided, directly or indirectly. While it is clearly not for the Authority to decide on the maintenance practices to be adopted by QR Network, it is the Authority's responsibility to ensure that QR Network is only compensated for efficient maintenance costs and practices.

Prima facie, QR Network's current approach is not efficient, at least from the perspective of the track owner. In this regard, as noted earlier, ARTC in the Hunter Valley does not have this problem to anywhere near the same extent as does QR Network and therefore incurs substantially lower maintenance cost in respect of cleaning coal fouled ballast.

Therefore, in this draft decision, the Authority has allowed for ballast cleaning costs at the same rate per gtk as currently apply to ARTC in the Hunter Valley.

However, the Authority is willing to consider further evidence from QR Network on the question of whether or not its approach is efficient from a whole of coal chain perspective. The Authority would expect that any such evidence would address the costs and benefits of the alternative solutions to the problem, including environmental costs and the cost of lost capacity through the track possessions needed to undertake the necessary cleaning. The issue of whether or not there are legacy issue involved would also need to be addressed.

At the same time, the Authority considers that this matter need not delay the finalisation of the QR Network's 2009 DAU.

In this regard, QR Network may well have already undertaken the appropriate analysis in deciding on its proposed approach to ballast cleaning. In such case, QR Network will be able to

respond quickly. Alternatively, if this is not the case, the Authority proposes that a provision be incorporated into the undertaking to allow the efficient cost (in a whole of coal chain sense) of ballast cleaning, once determined, to be added to the maintenance cost allowance underpinning QR Network's revenue cap and reference tariffs.

The Authority also notes that, if direct action is required by parties other than QR Network, it is open to QR Network to use its allowance for efficient ballast cleaning costs as its sees fit.

Therefore, the Authority proposes reference tariffs based on the Authority's recommended maintenance costs as shown in Table 1.13 below following the method used by GHD. Removing extra ballast cleaning costs reduces the maintenances costs by $55.7 million on average per annum or $0.73/('000 gtk). On this basis, the Authority rejects QR Network's proposed maintenance costs and requires it to resubmit its proposal, justifying excess ballast cleaning costs before the finalisation of the 2009 DAU. In the absence of sufficient justification, either before or after the 2009 DAU is approved, the Authority proposes a maintenance cost allowance as shown in Table 1.14 below.

Table 1.13: Ballast Undercutting Component of Maintenance (end of year nominal dollars $million)

	2009-10	*2010-11*	*2011-12*	*2012-13*
QR Network Proposed ballast cost Allowance	30	44	53	53
QCA Proposed ballast cost Allowance	15	22	26	26
% Reduction	**-50%**	**-50%**	**-50%**	**-50%**
QR Network Ballast cost $/'000gtk	0.46	0.56	0.65	0.66
QCA Ballast cost $/'000gtk	0.23	0.28	0.32	0.33

Table 1.14: Maintenance Costs (end of year nominal dollars $million)

	2009-10	*2010-11*	*2011-12*	*2012-13*
QR Network Proposed Maintenance Allowance	169	189	203	207
QCA Proposed Maintenance Allowance	127	135	141	143
% Reduction	**-25%**	**-29%**	**-31%**	**-31%**
QR Network maintenance cost $/'000gtk	2.58	2.43	2.50	2.57
QCA maintenance cost $/'000gtk	1.94	1.73	1.74	1.77

1.11 X-Factor

Incentive regimes typically include a mechanism to ensure that benefits associated with economies of scale and productivity improvements can be shared between the regulated business and its customers. Regulators have commonly used an 'X-factor' to put this into effect, where 'X' is a percentage that is subtracted from the relevant cost increase, typically as part of periodic escalations to reflect price inflation.

The 2001 undertaking included an X-factor of 1.5% based on studies that showed QR Network's infrastructure maintenance costs were 15% higher than they would have been if expenditure had been based on competitively determined contract rates.

The Authority did not require an X-factor in the 2006 undertaking period, as its assessment indicated that QR Network's forecast costs did not exceed an efficient level – a conclusion that was subsequently confirmed when QR Network applied for a substantial increase in its maintenance allowances on the basis they were significantly below its actual costs.

QR Network's proposals for forecasting operating and maintenance costs in the 2009 DAU are discussed in sections 1.8 and 1.10 above. These proposals included an X-factor of zero on the basis that sufficient productivity improvements had been incorporated into QR Network's estimated expenditure . QR Network has, however, proposed escalating its operating costs by CPI, and its maintenance costs by a specially constructed maintenance cost index (MCI – discussed in section 6.15). In relation to operating costs, QR Network said it faced a productivity incentive because CPI rose at an annual rate 2.5 percentage points lower than the increase in labour costs (QR Network, sub. no. 11: 130).

Stakeholders' comments

Stakeholders offered mixed views about QR Network's proposed treatment of cost escalation and productivity incentives.

The QRC said the proposed use of CPI as a proxy for efficiency gains had not been sufficiently justified given the scope for QR Network to implement efficiencies beyond those observed in the wider economy. The QRC said this might point to a CPI-X approach when indexing operating costs (QRC, sub. no. 38: 48).

Asciano said it was not convinced by QR Network's arguments that a CPI escalator would reflect efficiency gains (Asciano, sub. no. 33: 48).

ARTC said cost impacts in the infrastructure industry had 'significantly exceeded CPI', so indexing operating costs on CPI would imply a productivity improvement.

> *ARTC may support the use of an X factor if the inflation measure used more closely reflected QR Network's costs, rather than CPI (ARTC, sub. no. 32: 19).*

In relation to maintenance costs, ARTC said the significant cost pressures that had existed over several years in infrastructure maintenance and construction were 'reflected to some extent in inflation indices relevant to this type of activity' (ARTC, sub. no. 32: 19).

QCA consultant's analysis

GHD said QR Network's proposed productivity incentive for operating costs was not effective. When QR Network submitted its proposed tariffs in September 2008, wage increases were exceeding CPI. However, circumstances have changed and it was likely that, in the near future, 'QR's productivity increase due to their suggested mechanism will turn negative' (GHD, September 2009: 36). GHD conceded that wages movements were more volatile than CPI, but continued on the same general trend. Therefore, any incentive for productivity should remain linked to CPI.

GHD said CPI-X remained the most appropriate long-term incentive mechanism and suggested that 'X' should be 25% of CPI, based on an extensive review carried out in 2004 by the Economic Regulation Authority (ERA) of WA.

GHD reached similar conclusions about maintenance costs and the proposed MCI. The machinery QR Network was buying to perform maintenance tasks, through its alliance with QR Services, should be producing productivity improvements, GHD said.

> *Overall we are disappointed with the apparent lack of productivity benefit given the Alliance, the continuous improvement culture, the new machinery and the apparent realisation by the Operators that maintenance is essential for reliable infrastructure (GHD, September 2009: 66).*

QR Network's proposed costs did not take into account potential reductions such as lower fuel costs for vehicles, reduced overtime from the use of larger and more expensive machines, and reductions in maintenance from the use of new equipment.

GHD therefore proposed that the MCI be adjusted by the same 25% X-factor that it proposed for CPI.

Authority's analysis and draft decision

The Authority has taken a pragmatic approach to productivity incentives, requiring an X-factor in the 2001 undertaking because it considered QR Network's cost forecasts were excessive, and removing the requirement in the 2006 undertaking because it considered QR Network's cost forecasts were not inefficient.

In the 2009 DAU, QR Network has proposed annual maintenance costs that are double those approved by the Authority in the 2006 undertaking, and 63% higher than the revised maintenance costs the Authority approved in 2007. QR Network has also proposed to more than double its allowance for regional and system-wide operating costs, compared with the levels approved in the 2006 undertaking. Even allowing for the changes proposed by the Authority, the increases were very significant.

The Authority's consultant, GHD, has concluded that QR Network has not made any provision in those forecasts for productivity gains. GHD has therefore recommended that the Authority apply an X-factor to the escalation of those costs. GHD has based its suggestion of an 'X' of one-quarter (25%) of the MCI for maintenance costs (and one-quarter of CPI for operating costs) on research published by the ERA in WA in 2004 (ERA, March 2004; IRIC, May 2004).

The Authority notes that the ERA has continued to use a 25% 'X', and confirmed that level when it approved WestNet Rail's most recent costing principles (WestNet Rail, April 2009: 16).

The Authority accepts this recommendation and requires QR Network to apply a 25% X-factor reduction in its revenue adjustment amount calculations for both operating and maintenance costs.

Decision 1.3

The Authority requires that QR Network apply the MCI and CPI in its revenue adjustment calculations with an 'MCI-X' or 'CPI-X' efficiency factor, where 'X' is one-quarter (25%) of the MCI or CPI increase (so that adjustments for the 'actual change in MCI (or CPI) for the relevant year' are actually adjustments for 'the actual change in MCI (or CPI) for the relevant year less 25% of that change').

1.12 Reference Tariffs for the Central Queensland Coal Region

The 2008 undertaking provides for reference tariffs for coal-carrying train services on the CQCR to be calculated on the basis of recovering QR Network's efficient costs, including a return on its capital investment, over the term of the undertaking.

In addition, the undertaking sets out the system volume forecasts (on a gross tonne kilometre basis) used to derive the reference tariffs and the corresponding system allowable revenues, or revenue caps, for each system in relation to the non-electric and electric infrastructure access charges.

QR Network's 2009 DAU is consistent with these arrangements in that it contains QR Network's proposed tariffs, the system forecasts (on gross tonne kilometres basis) used to derive the tariffs and the revenue caps for each system in relation to the non-electric infrastructure access charges (AT_{2-4}) and electric infrastructure access charges (AT_5) from 2009-10 to 2012-13.

QR Network's Proposal

QR Network proposed costs for all coal systems of around $935 million per annum over the period 2009-10 to 2012-13, which is comprised of around $781 million per annum for non-electric assets and $155 million per annum for electric assets (see Table 1.15 for details).

The main drivers for these proposed revenues is as set out in section 1.1.

Table 1.15: CQCR Annual Revenue Requirement CQCR ($m)

Year	*2009-10*	*2010-11*	*2011-12*	*2012-13*
Non-electric Assets				
Return on capital	$370,949	$414,844	$435,010	$440,888
Less inflation	$88,246	$98,707	$103,530	$104,927
Depreciation	$132,116	$157,278	$173,563	$184,343
Maintenance costs	$155,702	$175,132	$186,717	$190,558
Operating costs	$67,847	$69,061	$74,271	$77,125
Tax	$58,335	$50,370	$50,844	$52,997
Total ARR	**$696,704**	**$767,978**	**$816,876**	**$840,985**
Electric Assets				
Return on capital	$46,948	$59,425	$61,294	$13,996
Less inflation	$11,157	$14,136	$14,589	$47,511
Depreciation	$34,589	$42,248	$45,720	$190,558
O&M	$42,773	$50,198	$63,888	$62,575
Tax	$11,548	$9,562	$16,440	$18,444
Total ARR	**$124,701**	**$147,296**	**$172,753**	**$173,343**
Grand Total ARR	**$821,405**	**$915,274**	**$989,629**	**$1,014,328**

QR Network then calculated reference tariffs based on the existing reference tariff structure to recover its proposed revenues. The existing multi-part tariff structure consists of:

(a) *cost reflective tariff components* – that recover a proportion of the required revenue through:

  (i) a usage-based charge which reflects the incremental maintenance costs, expressed on a gross tonne kilometre basis (AT_1);

  (ii) a capacity charge that covers the incremental cost to QR Network of capacity, expressed per train path (AT_2);

(b) *allocative tariff components* – that equally recover the remainder of the required revenue through:

  (i) a per net tonne kilometre charge (AT_3);

  (ii) a per net tonne charge (AT_4); and

(c) *electric tariff component* – that recovers the costs of the overhead electric infrastructure, expressed on an electric gross tonne kilometre basis (AT_5).

Based on the proposed costs and this tariff structure, QR Network proposed system reference tariffs and revenue caps for the Blackwater, Goonyella, Moura and Newlands systems (see Table 1.16).

Table 1.16 : QR Network's proposed CQCR reference tariffs and revenue caps

Tariff Component	***Blackwater***	***Goonyella***	***Moura***	***Newlands***
AT_1 – incremental maintenance ($/gtk)	0.54	0.54	0.95	0.78
AT_2 – incremental capacity ($/train path)	1,831.70	1,160.47	548.59	1,160.47
AT_3 – allocative component ($/ntk)	5.56	5.05	8.14	7.41
AT_4 – allocative component ($/nt)	1.82	1.06	1.35	0.95
AT_5 – electric infrastructure ($/egtk)	2.37	2.37	-	-
$/net tonne avg ($AT_{1-4}$)	4.40	2.55	3.14	2.52
Revenue Cap – Non-electric (AT_{2-4})($m)	***2009-10***	***2010-11***	***2011-12***	***2012-13***
Blackwater	$280.2	$282.1	$284.1	$286.1
Goonyella	$298.9	$316.5	$326.0	335.9
Moura	$47.3	$48.7	$50.1	$51.5
Newlands	$43.9	$45.1	$61.9	$63.6
Revenue Cap – Electric (AT_5)($m)				
Blackwater and Goonyella	$127.7	$135.8	$160.0	$164.6
$/egtk avg	2.37	2.43	2.50	2.57

As set out in Schedule F, Part B of the 2009 DAU

The tariffs presented above reflect QR Network's proposal to amalgamate the non-electric Blackwater and Goonyella clusters so that a single tariff applies within each of the systems and to amalgamate the electric Blackwater and Goonyella system tariffs so that a single tariff applies to all electric train services.

As discussed above, since lodging its submission, QR Network has amended aspects of its proposal to take account of more recent information. These amendments affect underlying

elements of the annual revenue requirement and reference tariff calculations and, in particular, would increase the reference tariff proposed by QR Network. These amendments include:

(a) reduced volume forecasts;

(b) an increase forecast capital expenditure for the term of the 2006 and 2008 undertakings; and

(c) recovery of significant revenue cap shortfalls in 2007-08 and 2008-09 (i.e. $43.6 million and $32.9 million respectively needs to be recovered in 2009-10 and 2010-11).

QR Network has not re-submitted reference tariffs that take into account these amendments.

Stakeholders' Comments

Stakeholders did not comment in general on the derivation of QR Network's proposed reference tariffs.

However, stakeholders did comment on QR Network's proposed amalgamation of the Blackwater and Goonyella clusters and the proposed amalgamation of the Blackwater and Goonyella electric systems (see section 6.7).

Authority's analysis and draft decision

The Authority has assessed QR Network's proposal, including the amendments QR Network has proposed subsequent to submitting its proposed reference tariffs and system allowable revenues.

The Authority has also considered, and made a draft decision on, QR Network's proposed amalgamation of certain cluster and system tariffs. In particular, the Authority proposes to accept QR Network's proposed amalgamation of the Blackwater and Goonyella non-electric system clusters into a single tariff for each system, but not the amalgamation of the Blackwater and Goonyella electric system tariffs into a single electric tariff. The Authority's reasons for this are set out in chapter 6 and the corresponding tariffs are discussed in turn below.

The Authority notes that QR Network's proposed tariffs will mean a significant increase in access charges for users. The proposed tariffs represent a 50% increase on current tariffs for non-electric assets and a 53% increase on current tariffs for electric assets as at 1 July 2009 (see Table 1.17).

Table 1.17: CQCR Current vs Proposed Reference Tariff as at 1 July 2009

System	*Current Tariff*[a]	*QR Proposal*	*% Increase from Current*
Non-Electric Access Charges ($/nt)			
Blackwater	2.95	4.40	49%
Goonyella	1.54	2.57	67%
Moura	3.18	3.14	-1%
Newlands	2.43	2.52	4%
Weighted Avg Increase			**50%**
Electric Access Charges ($/egtk)			
Blackwater	2.30	2.37	3%
Goonyella	1.23	2.37	93%
Hail Creek	1.44	2.37	64%
Weighted Avg Increase			**53%**

[a] *current tariff estimates represent the average composite price per tonne for each system.*

The Authority has largely been able to reproduce the tariffs in the 2009 DAU based on QR Network's proposed costs.

However, since lodging its submission, elements of QR Network's proposal has changed to take account of more recent capital expenditure data, in particular:

(a) re-estimating the roll-forward of the opening asset value based on the now approved capital expenditure for 2007-08, the known CPI for 2008-09 and a revised forecast of capital expenditure on projects commissioned in 2008-09; and

(b) re-estimating the amount of the overspending on capital expenditure over the term of the 2006 and 2008 undertakings – this has increased the amount of revenue that has to be recovered over the term of the 2009 DAU from $0.8 million to $10.6 million, with most of the overspending occurring in the Blackwater and Goonyella systems and with underspending occurring in the Moura and Newlands systems.

In addition, QR Network has proposed amendments to give effect to:

(a) QR Network's revised volume estimates; and

(b) the $43.6 million short-fall in the 2007-08 revenue cap which QR Network had not included in its tariff proposal.

Based on the Authority's calculations, the subsequent amendments to the underlying elements of the reference tariffs have resulted in an increase of, on average:

(a) an additional 17% to that proposed by QR Network for non-electric access charges; and

(b) an additional 30% to that proposed by QR Network for electric access charges.

The combined effect of these revisions is an increase in tariffs of nearly 70% for non-electric tariffs and 80% for electric tariffs as against 50% and 53% (respectively) based on QR Network's 2009 DAU submission (see Table 1.18).

Table 1.18 : CQCR Reference Tariffs Updated

Scenario	*1*	*2*	*3*	*4*	*5*	*6*
Tariffs as at 1 July 2009	*2009 DAU QCA est*	*Post 2009 DAU Updates*	*Revised Volumes*	*Revenue Cap 07-08*	*Revised Tariffs*	*% Δ from 1*
Non-Electric ($/nt)						
Blackwater	4.38	0.20	0.32	0.15	5.05	16%
Goonyella	2.59	0.08	0.22	0.14	3.03	17%
Moura	3.12	-0.02	0.15	0.00	3.25	4%
Newlands	2.51	-0.08	0.67	0.45	3.55	42%
(Weighted) Avg Increase						**17%**

Scenario	*1*	*2*	*3*	*4*	*5*	*6*
Tariffs as at 1 July 2009	*2009 DAU QCA est*	*Post 2009 DAU Updates*	*Revised Volumes*	*Revenue Cap 07-08*	*Revised Tariffs*	*% Δ from 1*
Electric ($/egtk)						
Blackwater	1.71	0.07	0.22	0.48	5.10	21%
Goonyella	4.22	0.11	0.33	0.33	2.37	39%
(Weighted) Avg Increase						**30%**

Sections 1.1 to 1.11 of this chapter outline the Authority's assessment and draft decision in relation to each of the elements underlying QR Network's cost build-up and reference tariffs. In particular, the Authority proposes to reduce:

(a) *the return on capital* – based on a WACC rate of 9.41% as against QR Network's 11.76%. (see section 1.3);

(b) *system-wide and operating costs* – providing an allowance of around $250 million over the period 2009-10 to 2012-13 as against QR Network's $288 million (including self-insurance) (see section 1.8); and

(c) *maintenance costs* – providing an allowance of $546 million over the period 2009-10 to 2012-13 as against QR Network's $769 million (see section 1.9).

The combined effect of the Authority's proposed adjustments is to offset the increases resulting from the amendments *since* the DAU was submitted. That is, the Authority proposes to approve reference tariffs that are around:

(a) 29% higher than current non-electric reference tariffs; and

(b) 61% higher than current electric reference tariffs.

Table 1.19 sets out the incremental reductions to the proposed tariffs to take account of the Authority's proposed reductions.

Table 1.19: CQCR Reference Tariff Sensitivity Analysis

Scenario	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Tariffs as at 1 July 2009	*Current Tariffs*	*2009 DAU QCA est.*	*QR Revised Tariff*[a]	*WACC (.9.41%)*	*QCA Opex*	*Net Tariff*	*% Δ from 1*	*% Δ from 2*
Non-Electric								
Goonyella	1.54	2.59	3.03	-0.43	-0.22	2.38	53%	-9%
Blackwater	2.95	4.38	5.05	-0.75	-0.42	3.86	32%	-11%
Moura	3.18	3.12	3.25	-0.51	-0.34	2.41	-24%	-23%
Newlands	2.43	2.51	3.55	-0.50	-0.14	1.74[b]	-28%	-31%
Weighted Avg Increase							***29%***	***-12%***
Electric								
Goonyella	1.23	1.71	2.37	-0.59	-0.05	1.73	41%	1%
Blackwater	2.30	4.22	5.10	-0.60	-0.13	4.37	90%	4%
Weighted Avg Increase							***61%***	***2%***

[a] *revised tariff refers to the tariff updated to account for amendments subsequent to the 2009 DAU being submitted. These tariffs are presented in Table 1.18, scenario 5.*

[b] *the net tariff for Newlands also takes into account the $171 million forecast capital expenditure reduction set out in section 1.5. Without this reduction the net tariff would be $2.46/ net tonne.*

Appendix 1 sets out the proposed reference tariffs in detail (i.e. the tariff components AT_1-AT_5 for each system) and, based on these, the proposed revenue caps for non-electric and electric access charges.

Individual Tariff Components

As discussed earlier, the reference tariff is comprised of multiple components, including cost reflective components (AT_1 and AT_2), allocative components (AT_3 and AT_4) and, where applicable, an electric tariff component (AT_5).

Importantly, the current arrangements provide QR Network with surety of receiving the revenues associated with the AT_{2-4} components and the AT_5 component as the revenues associated with these form QR Network's revenue cap for non-electric and electric infrastructure charges respectively.

As part of its 2009 DAU application, QR Network has also reviewed the methodologies for determining the incremental maintenance and incremental capacity reference tariff components.

Incremental Maintenance (AT_1 tariff component)

QR Network has reduced the maintenance tariff component (AT_1) by, on average, 26% over the Blackwater, Moura and Newlands systems. The Goonyella AT_1 rate has not been re-cast but QR Network has used the rate approved in the 2006 undertaking, and rolled it forward to 1 July 2009 based on its proposed maintenance cost index.

QR Network's newly proposed AT_1 rates are based on reviewing the relationship between maintenance costs and average gross tonnes presented in the Authority's December 2000 Working Paper (titled Usage-related Infrastructure Maintenance Costs in Railways) and using it to determine the appropriate rate based on the average gross tonnes by kilometres expected over the 2009 DAU period for each system.

In general, stakeholders found it difficult to comment on this matter given the limited amount of public data available and, therefore, stated they would rely on the Authority to determine

whether or not it QR Network's proposal was reasonable (QRC sub no. 38: 76, Asciano sub no. 33: 51).

In addition, Asciano commented that it was unclear whether the costs recovered through the AT_1 component for maintenance were additional to, or included in, QR Network's proposed maintenance costs. On this, it noted that, if it was the latter, QR Network's proposal was merely a rearrangement of costs into the fixed cost elements and, therefore, a reduction in the costs that fall outside the revenue cap (Asciano, sub no. 33: 52).

The Authority has considered QR Network's proposal and has had regard to the limited comments raised by stakeholders.

In response to the query raised, the Authority notes that Asciano's latter assumption is correct – i.e. the costs associated with the AT_1 component are included in the total proposed maintenance costs and, therefore, QR Network's proposal to lower the AT_1 component means that less of its maintenance costs are subject to volume risk and a greater portion is covered by the revenue cap.

More generally, however, the Authority does not consider that QR Network has justified the proposed decreases in the AT_1 rates. The relationship between maintenance costs and average gross tonnes that QR Network has relied on was developed almost 10 years ago and is an increasingly irrelevant basis for determining a proxy incremental maintenance rate.

In addition, it seems counter-intuitive that the variable component of maintenance costs would be declining at the same time as QR Network is seeking significant increases in maintenance costs, in part due to increasingly more expensive input prices for labour and consumables.

Accordingly, unless QR Network can further demonstrate its claims, the Authority requires QR Network to continue to use the AT_1 rate approved as part of the 2006 undertaking.

In doing so, the Authority accepts that it is reasonable to use the maintenance cost index to escalate the AT_1 base rate to 1 July 2009 given that input cost increases have been, for most years, higher than the prevailing CPI index over the term of the 2006 and 2008 undertakings.

Table 1.20: Incremental maintenance - AT_1 tariff component

	Base		**10% Uplift (DAAU)**			**Mid-year**
	1 July 2005	***1 July 2006***	***1 July 2007***	***1 July 2008***	***1 July 2009***	***1 Jan 2010***
Blackwater	0.62	0.64	0.73	0.74	0.76	**0.78**
Goonyella	0.43	0.44	0.50	0.51	0.53	**0.54**
Moura	1.16	1.21	1.37	1.39	1.43	**1.45**
Newlands	1.20	1.25	1.42	1.44	1.49	**1.51**
Change in MCI (escalator)		4.10%	3.26%	1.55%	2.97%[a]	

[a] escalation is inclusive of the 10% uplift approved as at 1 July 2007 in the Authority's decision on QR Network's Maintenance Cost DAAU (Dec 2007).

Incremental Capacity (AT_2 tariff component)

The AT_2 tariff component seeks to signal the incremental cost associated with the consumption of train paths.

QR Network has reviewed the incremental capacity charge in each of the central Queensland coal systems and has proposed to:

(a) retain the current AT_2 reference tariff for the Blackwater, Goonyella and Moura systems (approved as at July 2005) and roll it forward to March 2008 using the Rawlinson's building price index and then to July 2009 using a simple average of the quarterly changes in the Rawlinson's index between July 2005 and March 2008 (1.68% per quarter); and

(b) apply the Goonyella system's AT_2 reference tariff for Newlands system on the basis that this would ensure that it would more closely align the capacity characteristics of the Newlands and Goonyella systems for when the GAPE project is complete.

QR Network indicated it would revisit the AT_2 charge again in the 2013 regulatory period.

Asciano acknowledged the difficulty in calculating one appropriate AT_2 rate and, in general, supported retaining the AT_2 component provided that it operates to signal a modest preference for the most efficient use of capacity. However, Asciano did not see any clear link between the costs and the escalation method QR Network used (Rawlinson's index) and, in addition, did not consider that the Newlands rate should be aligned with GAPE until the project is completed.

The Authority has considered QR Network's proposal and does not propose to object to simply indexing the current AT_2 rates for the Blackwater, Goonyella and Moura systems; in particular, using a construction cost index is a reasonable approach to ensuring that the cost of capacity is at least rising in line with the actual growth in construction costs between the 2006 and 2009 regulatory periods.

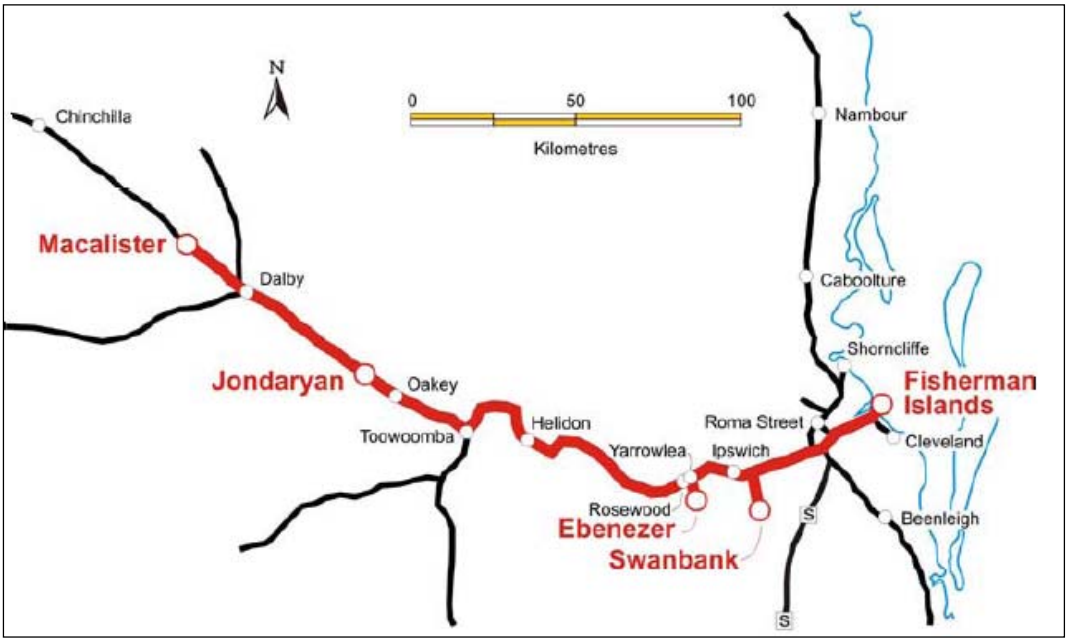
However, the Authority considers that it is not appropriate to align the Newlands AT_2 rate with that applied in Goonyella at this time. Consistent with other matters involving the GAPE project (i.e. the capital expenditure discussed in section 1.2), the Authority considers that any such amendments should be delayed until the arrangements associated with the pricing of the GAPE can be considered in its entirety.

Accordingly, the Authority accepts QR Network's proposed AT_2 rates for the Goonyella, Blackwater and Moura systems but requires QR Network to re-calculate the AT_2 rate to apply in Newlands system consistent with the approach applied to other systems. Based on the Authority's calculations, this results in an AT_2 rate of $245/train path instead of QR Network's proposed $1,160/train path on the Newlands system.

1.13 Western System Reference Tariffs

QR Network's 2006 access undertaking contained, for the first time, reference tariffs for coal-carrying train services on the western system, which connects Surat Basin and West Moreton mines with the Port of Brisbane (See Figure 1.5). There were no western system reference tariffs in the 2001 undertaking.

Figure 1.5: Western system map



Source: QR Network

QR Network's 2005 DAU proposed a two-part tariff for the western system, with part of the price paid per train path, and the remainder based on weight and distance – i.e. as a charge per gross tonne kilometre (gtk). The proposed western system tariff was split into three clusters, with the average tariff working out to more than $12.50/'000gtk. This proposal was as much as 270% higher than tariffs for other traffics on the western system.

The Authority rejected that claim, indicating that QR Network had 'not proposed a clear or consistent methodology for determining western system coal tariffs' (QCA, July 2005: 74). While the 2006 undertaking ultimately included a tariff of $10.50 per '000gtk, the Authority had argued that a western system tariff should be assessed within a well-accepted framework such as the Depreciated Optimised Replacement Cost (DORC) methodology and that:

> *Applying a DORC methodology to the Western System would entail:*
>
> - *relying on efficient replacement costs;*
> - *optimising the route, based on an independent study, and designing the system to an appropriate standard for the purpose of coal-only traffic;*
> - *an evidence-based assessment of the age of system assets, based on actual asset ages or a condition-based assessment of effective asset ages; and*
> - *a transparent methodology for calculating efficient prices for coal taking into account other traffics and system constraints.*
>
> *The Authority also believes that, if the costs are based on a stand-alone coal system, a ceiling price should be determined on the basis of the capacity of that system, and not actual forecast tonnages. Alternatively, if costs are based on the existing capacity constrained system, an efficient ceiling price for coal should be based on there being no discounts to other traffics (QCA, December 2005: 77).*

By the June quarter of 2009, the original western system tariff of $10.50/'000gtk had been indexed to $11.99/'000gtk, which equates to an average haulage cost of around $5.36/net tonne.

QR Network's proposal

In the 2009 DAU, QR Network has calculated a ceiling price for its western system tariffs based on a building block approach, similar to that used to establish the annual revenue requirement

and system allowable revenue for the coal systems in central Queensland. The factors QR Network used to set a western system ceiling price included:

(a) a DORC asset value for the non-metropolitan part of the Western System;

(b) an estimate of future coal-related capital expenditure;

(c) an estimate of coal-related maintenance costs; and

(d) an apportionment of QR Network's system-wide and regional costs.

Based on this methodology, QR Network submitted a ceiling price of around $34.00/'000gtk for the network west of Rosewood (QR Network, sub. no. 1: 116-120). QR Network argued that a similar or even greater ceiling price was also reasonable for the network east of Rosewood given that the metropolitan network would have a very large regulatory asset base, and that commuter trains required a high standard of track.

QR Network subsequently submitted a more detailed explanation of the western system tariff, but now based on a ceiling price of $32.00/'000gtk (QR Network, sub. no. 29: 4). It also provided the Authority with a financial model to show how it had derived that ceiling price.

Rather than seeking to set a tariff at the ceiling price, QR Network proposed a tariff of $22.07/'000gtk – which the Authority estimates to be around $9.86/net tonne for a standard western system reference train.

QR Network did not seek to justify the $22.07/'000gtk tariff, except to say it was lower than the ceiling price and that the tariff:

(a) allowed QR Network to make an 'appropriate commercial return' on the capital it had invested to support growth in western system coal volumes, including:

    (i) 'full recovery of the capital charges associated with track infrastructure' (e.g. sleepers, rail and ballast); and

    (ii) '5.7% of the capital-related charges' for non-track infrastructure (e.g. corridor land, tunnels and bridges);

(b) included 'forward-looking operating and maintenance costs'; and

(c) included costs incremental to coal traffics and a reasonable allocation of shared or common costs' (QR Network, sub. no. 29: 30).

In June 2009, QR Network submitted a model to justify the proposed tariff in response to indications from the Authority that it was seeking a transparent and repeatable tariff-setting mechanism for the western system.

While this new model was similar to the earlier version used to derive the $32/'000gtk ceiling price, QR Network had modified the estimate of the asset base by distinguishing between assets that existed before western system coal traffic began in the mid-1990s and infrastructure subsequently built or replaced to serve the growth in coal traffic. QR Network then used that distinction as the basis to adjust the regulatory asset base for the western system coal traffic.

This distinction operated so that:

(a) for assets that were in place before 1995, QR Network made a pro-rata adjustment to the DORC based on the proportion of western system train paths that are used by coal-carrying services; and

(b) for assets added since 1995 to provide for coal traffic, and for any incremental capital spending during the regulatory period, QR Network included the full value in the regulatory asset base (RAB).

As the new modelling generated a tariff of $27.84/'000gtk, QR Network maintained its view that its proposed tariff of $22.07/'000gtk was reasonable.

Stakeholders' comments

The QRC stated that there should be no increase in the western system coal tariff until QR Network had justified its case by 'a reasonable methodology which reflected the realities of the system'.

> *QRC considers that the QCA should reject QR Network's proposed methodology for the development of the proposed Western System reference tariff, as:*
>
> – *the ceiling price is based on an approach which is fundamentally inappropriate and which has little in common with the DORC methodology proposed by the QCA.*
>
> – *in the absence of a ceiling price, QR Network has provided no justification for the proposed reference tariff (QRC, sub. no 38: 54).*

The QRC stated 'a proper DORC approach should be based on an optimised route for coal traffic, optimised design for coal traffic and a capacity which is not artificially constrained' and that:

> *While a true DORC valuation would provide information of some value, in a sense it would indicate an appropriate base for charging for a level of service which does not exist. That is, it would lead to a price which would then need to be adjusted, on some basis, for service quality considerations (QRC, sub. no. 38: 54).*

In particular, the QRC considered the methodology for establishing western system tariffs should reflect:

> *the standard of service offered in the Western System (taking into account, for example, security of Access Rights, effect of the service on above rail costs, inability to significantly expand the system, scheduling constraints, passenger priorities) (QRC, sub no. 38: 55).*

The QRC also indicated:

(a) the tariff should be based on 'a baseline methodology which can be rolled forward for the establishment of future tariffs';

(b) the tariff should be adjusted for access facilitation deeds (access conditions), which change the risk profile so that the central Queensland WACC is inappropriate; and

(c) capital expenditure should be allocated to non-coal traffics in proportion to their use of the western system, where new or replacement infrastructure reduces expected future maintenance spending.

In response to further information provided by QR Network on its maintenance and capital expenditure claims, the QRC made a second submission (December 2008) on the western system tariff (QRC, sub. no. 44) in which the QRC stated:

(a) the maintenance and capital expenditure proposals were developed before the impact of the global financial crisis and were likely to overestimate input costs;

(b) the allocation of maintenance costs to coal, based on gross tonne kilometres, was unreasonable given many costs were unrelated to train weight;

(c) the western system should have a pricing structure where the coal traffic pays the same contribution to common costs as other traffics, plus coal-specific capital and maintenance costs; and

(d) the carryover of the tariff for Rosewood to Macalister to the metropolitan system is unreasonable given QR Network has said incremental costs for coal traffics on the metropolitan system are 'minimal'.

Asciano had the same concern for the western system as it had for central Queensland that, if QR Network maximised its below-rail recovery, then it reduced the returns required from a related above-rail business. This reduction in required returns did not apply to a third-party access seeker. Asciano also stated:

> *there are a number of identifiable factors that would lead to an expectation that the DORC value of the network required for coal services [on the western system] would be higher than that applicable to the CQCR on a kilometre for kilometre comparison (Asciano, sub. no. 33: 50-51).*

Authority's analysis and draft decision

Coal exports on the western system began in 1982 from West Moreton mines near Ipswich (QR Network, sub. no. 29: 6). Export coal rail services from the Darling Downs coalfields west of Toowoomba began in 1995, when an export mine was developed at Wilkie Creek, using the Macalister loading point.

While the western system is much smaller than the CQCR, it is still economically significant, as it carries over $600 million a year in coal, and coal volumes are anticipated to continue to experience significant increases (i.e. from 4.6 million tonnes in 2005-06 to a forecast of more than 9 million tonnes in 2012-13, including shipments to domestic customers). These factors underscore stakeholders' desires for a robust basis for setting prices.

The Authority accepts stakeholders' comments that it is necessary to have a transparent and robust methodology for determining reference tariffs on the western system. Such an approach will provide access holders and their customers with the ability to plan future rail haulage operations with some degree of certainty.

More importantly, however, a repeatable methodology is necessary to facilitate competition between train operators on that line. It would be very difficult for a non-QR party to enter the market to compete with incumbent operator QR Freight if it was believed that the access charge could be increased significantly, but with the only justification for the change being that the tariff remains lower than an estimated ceiling price.

The Authority does not accept that a process where the tariff is set on the basis that it is lower than a ceiling tariff is sufficiently transparent, robust or repeatable.

However, a variety of circumstances make developing an appropriate methodology more complicated for the western system than it is in central Queensland, namely:

(a) non-technical and non-financial issues, particularly the expansion of passenger services in metropolitan Brisbane, affect service levels and are likely to cap the network's capacity for coal traffic at a level below the potential demand (section 1.14);

(b) users are considering introducing new short-coupled wagons and upgraded locomotives to increase coal tonnes per train path, with relatively little extra investment required by QR Network (section 1.15).

(c) QR Network has required users to fund most recent and projected coal-related capital expenditure on the western system through access facilitation deeds (section 1.16);

(d) the system carries a range of traffics other than coal, including passengers and other commodities, and this needs to be recognised in the treatment of the DORC and RAB (section 1.17);

(e) the state government, through Queensland Transport, provides transport service contract (TSC) subsidies to support QR Network's maintenance and capital costs for the western system (section 1.17);

(f) coal uses only part of the system (section 1.17); and

(g) the system's route through metropolitan Brisbane complicates the estimation of system costs (section 1.23).

The Authority believes it is necessary to consider a number of aspects of these issues prior to its consideration of the DORC asset valuation and other elements of the cost build-up for the western system coal tariffs.

1.14 Western System Service Levels

The QRC indicated that the DORC valuation of the western system should take into account the service standards on the western system. In exploring this matter further with the QRC and the coal mines, it was apparent that some of the concerns related to train operations (e.g. locomotive breakdowns) and these issues are beyond the scope of this decision on below-rail infrastructure.

However, other concerns are relevant as they relate to the service standards of the western system; in particular relative to that of the coal network in central Queensland.

In this context, it is noted that coal trains in central Queensland essentially operate around the clock, on flexible schedules designed to maximise the utilisation of both above-rail and below-rail infrastructure, and with relatively few competing traffics to disrupt their operation. The trains are as much as two kilometres long, and some carry more than 10,000 tonnes of coal.

In contrast, western system coal trains carry less than 2,000 tonnes and face a number of restrictions, namely:

(a) they can only operate through the metropolitan system 80% of the time because of two three-hour blackout periods to cater for the morning and afternoon weekday peaks of passenger traffic;

(b) they are subject to passenger priority rules which can lead to coal services being cancelled or delayed;

(c) they are subject to a maximum length of 655 metres, and a maximum axle load of 15.75 tonnes; and

(d) train speeds are limited by sharp curves and steep grades on the range east of Toowoomba.

In addition, QR Network advised that, where contracted paths were not provided because of extra passenger services, notification was required in advance and another path would be provided so take or pay obligations would not be triggered.

It is evident that many of the constraints on operations of coal trains on the western system are a result of the system not being designed as a heavy-haul freight railway. Indeed, the cost of developing a purpose-built railway is likely to have been prohibitive.

The main below-rail factors affecting above-rail operations had been in place long before coal rail services began in the mid-1990s. Constraints such as the dimensions of the tunnels and the alignment and grade of the track on the range crossing date back to the 1860s. In addition, the maximum length of western system trains, and therefore the length of passing loops that have been built to accommodate them, reflect the spacing between signals on the metropolitan system.

All these factors, including the age and condition of the track and other infrastructure, are taken into account in the DORC valuation, which is taken into account when assessing prices.

1.15 Western Systems Above-rail Investment (Close-coupled Wagons)

As mentioned in section 1.14, western system trains are limited to a length of 655 metres, and their height and width are restricted by the size of the tunnels on the range crossing. QR National and the western system miners have for more than a decade been investigating the possibility of maximising the amount of coal that can be carried within those limitations.

The miners estimate that shortening the space between each rail wagon, and thereby making the train denser, could increase the payload per train by between 30% and 40%.

> *It is the industry's expectation that, subject to appropriate commercial negotiations, the deployment of close couple wagons onto the Western System should be considered as an obvious and immediate solution to increase the supply chain's capacity within the UT3 regulatory period (QRC, June 2009).*

The Authority also understands that investments in new, technically advanced locomotives (eg quieter, more powerful locomotives with new braking mechanisms) might provide additional benefits by resolving some of the issues arising from coal trains sharing the metropolitan network with passenger services. For example, they will allow coal trains to operate at speeds and train separations that make them more compatible with the operating requirements imposed by the passenger trains.

QR Network stated the introduction of close-coupled wagons and new or upgraded locomotives was solely an above-rail service decision.

QR Network also indicated that the cost of implementing close-coupled wagons is likely to be cheaper than the investment in below-rail infrastructure to achieve a similar increase in coal capacity. QR Network indicated in its 2009 master plan that it was possible to add more than 30% to the coal export capacity of the western system, while using the same number of train paths required to export 7.9 million tonnes a year (mtpa). This could be achieved by spending:

(a) $365 million to achieve sustainable throughput of 10.4mtpa by upgrading the below-rail network infrastructure to allow for 20-tonne axle loads; or

(b) $205 million to achieve sustainable throughput of 10.6mtpa through above-rail investment in close-coupled wagons. (QR Network, October 2009: 86).

QR Network's 2009 master plan also listed a third option for increasing capacity by providing more train paths with three new passing loops on the Toowoomba range crossing, and other below-rail investments, but did not include a cost estimate.

QR Network advised that introducing close-coupled trains would require additional civil works to strengthen the tracks. However, QR Network also indicated that the works were the same as are necessary to support a 7.9 million tonne export capacity with the existing lower-tonnage trains. In this regard, QR Network's western system capital expenditure proposal shows that much of this work is already under way, or set to be undertaken, and a large proportion of that investment is already being underwritten by the coal miners through access facilitation deeds (QR Network, sub. no. 31).

1.16 Western System Access Facilitation Deeds

QR Network is permitted to impose access conditions to offset the risk that it will cease to collect access charges for infrastructure before it has before it has fully recovered the cost of that infrastructure (the asset stranding risk). These access conditions have typically taken the form of an agreement with a mining company for it to underwrite QR Network's capital costs for new infrastructure. While the 2008 undertaking prohibited QR Network from imposing access conditions on the mainline sections of the central Queensland coal network, this prohibition did not extend to the western system. As a result, QR Network has increasingly required miners to offset its investment risk through access facilitation deed (AFD) agreements for infrastructure needed to increase coal rail capacity.

The QRC stated it was concerned about this trend:

> *QR Network's risk profile in the Western System is influenced by Access Facilitation Deeds which have been sought by QR Network for upgrade projects over recent years. We . . . note that the risk profile in respect of these enhancements is such that it would be inappropriate to apply a WACC which is similar to that assessed for central Queensland (QRC, sub. no. 38: 55)*

Even though access conditions are currently permitted for mainline sections of the western system, the system is still subject to many of the same issues that led the Authority to deem access conditions unreasonable for the central Queensland mainline. These central Queensland issues are considered in detail in section 6.5 but, in brief, a key concern is that it is both inefficient and inequitable to require a new user to underwrite the incremental costs of an increase in system capacity where this capacity is shared across a number of users.

In central Queensland, the diversity of mines using each of the system mainlines means QR Network's asset stranding risk on those sections of track is minimal. The situation is more complicated on the western system as it:

(a) has only three mines, and therefore lacks the diversity of the central Queensland systems;

(b) is an old network, part of which has been adapted to support coal traffics;

(c) operates coal services on a network shared with a variety of other traffics; and

(d) is subject to the potential that the state government will exclude coal traffic from the metropolitan system so it can obtain those train paths for increased passenger services.

The Authority accepts that QR Network is less able than the miners to manage the risk that the western system mines will stop operating for economic or technical reasons before the asset life

of the coal-specific infrastructure has expired. Furthermore, while the miners and QR Network each have a similarly limited capacity to manage the risk that the Queensland government will halt coal traffic through the metropolitan system, the miners have been prepared to build their export-focused mines in knowledge of this risk.

Therefore, it is reasonable in principle for QR Network to impose access conditions for western system infrastructure. However, a related issue is the treatment of the rebates that are required to prevent QR Network from using access conditions as a way of collecting revenue beyond the level provided in the reference tariff.

The capital underwriting through the AFDs protects QR Network from the risk that its cashflows related to an asset will cease before it has recovered its sunk cost of creating that asset.

These AFDs typically include provisions for QR Network to pay back to a miner the money it has provided to underwrite an asset, over the life of the asset. The rebate period is set to equal the asset life determined by the Authority in setting the initial reference tariffs that apply to the assets covered by the rebate.

The Authority notes the QRC's suggestion that QR Network's risk on the western system is lower than that in central Queensland because of the AFDs and, therefore, a lower WACC should be applied when assessing the western system tariff. The general issues related to WACC for the 2009 DAU are discussed in detail in section 1.3.

Furthermore, the Authority is not convinced that the level of underwriting QR Network has received in respect of the western system justifies a lower WACC. There are other countervailing influences that also need to be taken to account, including the lack of diversity in the number of miners using the system. However, that is an issue the Authority will keep under review.

The western system tariff-setting process for the 2006 and 2008 undertakings did not include any specific determination of asset lives. However, QR Network has gone ahead and required AFDs for infrastructure investment, which refer to paying the rebate over the asset lives determined by the Authority. While recent agreements have provided for the rebates to extend over as much as 50 years, pending the availability of approved asset lives, QR Network has neither sought the Authority's approval for those asset lives nor sought to prepare a reference tariff based on 50-year asset lives.

The Authority has therefore provided in Table 1.198 information on the assumed lives of assets included in the regulatory asset base for the western system. This will allow QR Network and the miners to adjust the rebate terms to match those used in deriving the western system tariffs.

Table 1.21: Western System Assumed Asset Lives

Asset Category	*Assumed Asset Lives (Years)*
Sleepers (concrete)	50
Rail	20
Turnouts	20
Ballast	20
Top 600	50
Roads	38
Fences	20
Signals	20
Bridges	50
Culverts	50
Earthworks	100
Tunnels	100
Land Acquisition	50
Telecom	20
Power Systems	20

Source: Everything Infrastructure

Decision 1.4

The Authority approves the asset lives set out in Table 1.21 for use in tariff-setting and calculating rebates for the western system.

Renewal Rights

The 2009 DAU does not include any requirement that western system coal access agreements give customers or access holders a right of renewal of their access agreements, like that given in contracts in central Queensland.

QR Network in responding to questions from the Authority stated that since it was not seeking to price at or near the ceiling price, any renewal provision would be of dis-benefit to QR Network. Therefore, capacity would be allocated as required in the capacity allocation provisions in part 7. QR Network considered the renewal provision that operated in the CQCR might apply on the western system if it was to price at an agreed adjusted ceiling price.

The Authority rejects this assertion by QR Network. A renewal provision may 'be of dis-benefit' to QR Network, but that is not a sufficient reason to deprive users of such a right for assets and capacity that they have underwritten.

Therefore, this draft decision proposes that the renewal rights that coal carrying train services have in central Queensland be extended to the western system as well (see sections 6.5 and 7.10 for a further discussion of this matter).

1.17 Western System Constrained System and Non-coal Traffic

The pricing principles prevent QR Network from charging more than the standalone cost of providing a train service, or group of train services. They also provide flexibility to charge less than that standalone cost. However, there are restrictions on that flexibility in cases where the infrastructure is capacity constrained. Clause 6.3.1(b)(ii) of both the 2008 undertaking and the 2009 DAU requires that, where available capacity is limited, and QR Network:

> *(b) chooses to allocate Available Capacity to an Access Application where the Access Seeker will pay an Access Charge that is less than the Maximum Access Charge in preference to an application where the Access Seeker would pay an Access Charge that is equal to the Maximum Access Charge and would otherwise be able to use that Available Capacity,*
>
> *then for the purpose of assessing a Maximum Allowable Revenue in accordance with clause 6.2.4 for all Train Services using that constrained section of rail infrastructure, the Access Charge for the Access Seeker will be assumed to be the Maximum Access Charge (QR Network, sub. no. 25: 39).*

Put another way, it is not necessary for the non-coal traffics to pay the same tariffs as coal traffics. It is only necessary that the tariffs charged to the coal services not subsidise the non-coal services. So, if QR Network charges the other traffics lower tariffs, the Authority is entitled to treat those traffics as though they pay the same tariff as coal, when assessing whether QR Network is receiving sufficient revenue. Any shortfall in non-coal revenue is a commercial matter for QR Network, which may be addressed by the TSC subsidies from the state government.

This approach is consistent with comments from the QRC:

> *The arguments in support of price discrimination between different traffics in a constrained system are weak and not related to efficiency considerations. As such the opportunity cost of each train path on a constrained system is the access charge paid by the highest-tariff traffic; therefore contributions based on the tariff of the highest-tariff traffic (coal) should be assumed to be contributed by other traffics (QRC, sub. no. 38: 55).*

It is apparent that the western system is capacity constrained. In addition, QR Network has acted in several ways which are consistent with treating the system as constrained.

First, QR Network's 2009 Coal Infrastructure Master Plan states that increases beyond 10.8 million tonnes of export capacity and 1 million tonnes of domestic coal will require significant investments including three new passing loops on the Toowoomba range, and upgrades to track and signalling. It stated the difficulty already experienced in maintaining existing coal tonnages while additional capacity is built:

> *... certainly highlights the constraints to achieve any coal growth through the Brisbane metropolitan area until until SEQIP [South East Queensland Infrastructure Plan] construction is completed, which is not expected before 2025 (QR Network, October 2009: 85).*

Second, QR Network has relied on its customers, i.e. the coal mines, to underwrite infrastructure spending required for new mainline capacity. It is reasonable to conclude that, based on the fact that QR Network built new infrastructure, and required capital guarantees, the expenditure was to address capacity constraints.

Third, QR Network has chosen to base its costs on the existing capacity-constrained system, rather than considering a hypothetical coal-only system, with hypothetical traffic levels.

> *The most feasible alternate route alignment for the Toowoomba range is the Gowrie to Grandchester bypass. This route was subject to review for the inland rail study and has recently been estimated to cost approximately $1.3 billion. In the absence of an identified Greenfield port solution, any proposed bypass would be volume-constrained due to the Metropolitan Network. Therefore, on a stand-alone coal basis the investment is likely to be uncommercial (QR Network, sub. no. 29: 12).*

Given that the western system is capacity constrained, it is therefore, appropriate to assess the coal tariff on the basis that all traffics are paying the same price. In practice, the differential is substantial, with non-coal traffics on the western system paying less than the coal-carrying services. At the April-June 2009 tariff of $11.99/'000gtk, coal was paying a premium of between 88% and 190% above the tariffs paid by other freight traffics. At QR Network's proposed tariff of $22.07, the premium is between 244% and 432%.

Therefore, in assessing the reference tariff for coal-carrying train services on the western system, the Authority proposes to adopt the approach that that each user's train service covers an equal proportion of the common cost of providing that asset base.

The share borne by coal will be based on the average proportion of available western system train paths forecast to be used by coal during the term of the 2009 DAU, or 75.6%. However, as discussed in section 1.14, 20% of the paths which could be supported by the western system infrastructure are sterilised by the curfew periods for peak-hour weekday passenger traffic. Therefore, the proportion of potential western system paths available to coal services is 80% of 75.6%, or 60.5%.

1.18 Western System Opening Asset Value (DORC)

The Authority and QR Network have, through successive undertakings, developed a mechanism for assessing QR Network's tariffs in central Queensland, which has involved both establishing a regulatory asset base, and putting in place a process for adding future capital expenditure to that asset base. The Authority considers that a transparent and repeatable approach for the western system should include a similar mechanism. The treatment of the western system asset base needs to balance the interests of all stakeholders by providing:

(a) QR Network with a fair recognition of the value of the infrastructure that is used to transport coal on the western system; and

(b) miners with certainty about the future impact on tariffs of the return on the asset base, and a reasonable allocation of incremental infrastructure costs, bearing in mind that coal trains share the western system with other users.

QR Network's proposal

QR Network developed its initial $32/'000gtk ceiling price by including the full DORC valuation of the western system between Rosewood and Macalister, less optimisation of some duplicated sections of track between Rosewood and Helidon, and some sidings and branch lines. The DORC valuation was undertaken for QR Network by consultancy firm Connell Hatch, while QR Network selected the optimised sections (QR Network, sub. no. 10: Appendix C). QR Network stated the optimised infrastructure was unnecessary for the train paths used by coal services.

Connell Hatch's DORC valuation for the 299.3km western system coal network from Rosewood to Columboola, as at August 2007, was $450.8 million, or an average of $1.51 million a kilometre. However, in developing its ceiling price, QR Network only included Connell Hatch's $351.6 million valuation for the 213 km from Rosewood to Macalister. QR Network did not include the valuation for the remaining 86 km of track section from Macalister to Columboola as it did not form part of its western system reference tariff proposal in the 2009 DAU.

QR Network then derived its regulatory asset base of $379.6 million, as of 1 July 2009, by adding in $28 million of incremental capital expenditure completed or forecast to be completed between the August 2007 DORC date and the start of the new undertaking period. This

incremental capital expenditure included $6.7 million for the Surat Basin Track Upgrade Stage 4 and $13.5 million for mainline track upgrades for additional tonnages – a total of $20.2 million in track-related capital expenditure – plus $6.2 million for an allocation of system-wide capital spending, and $1.6 million for interest during construction (QR Network, sub. no. 31: 7).

In August 2009, QR Network advised that, between August 2007 and June 2009, it had actually spent only $7.3 million of the forecast $20.2 million in track-related capital expenditure because of 'the delay in executing agreements with the respective stakeholders' which were underwriting track upgrades (QR Network, August 2009: 1-2).

Table 1.22 : Post-DORC Capital Upgrades 2007-9, $'000

	2007-8		*2008-9*		*Total (2007-9)*	
	Forecast	*Actual*	*Forecast*	*Actual*	*Forecast*	*Actual*
Surat Stage 4	3,000	5,425	3,700	51	6,700	5,476
SW Coal Mainline		138	13,500	1,686	13,500	1,824
Total western capex	3,000	5,563	17,200	1,737	20,200	7,300

Source: QR Network, sub no. 31: 7, and QR Network, August 2009: 1-2

When, in June 2009, QR Network provided the second model to justify its proposed western system tariff, it used the proportion of available train paths devoted to coal services as the basis for a partial pro-rata adjustment of the Connell Hatch DORC estimate, rolled forward to July 2009. This adjustment was applied to the $307.9 million portion of the DORC estimate that QR Network calculated to represent the value of the network that existed before western system coal rail services that began in 1995. QR Network included the remainder of the DORC value, or $80.1 million, in the RAB at 100% of its valuation, without any pro rata adjustment.

QCA consultant's analysis

The Authority commissioned consultancy firm Everything Infrastructure to assess QR Network's DORC valuation, and its incremental maintenance and capital expenditure forecasts. The primary objective was to determine whether the amounts proposed by QR Network were reasonable and, if not, to propose new valuations and cost forecasts.

The key conclusions of Everything Infrastructure's review of Connell Hatch's DORC estimate include:

(a) the valuation date of August 2007 was in the middle of a cyclical peak in the construction market, and it would have been more appropriate to use long-term average costs;

(b) QR Network has no current plans to upgrade the track west of Toowoomba to modern engineering equivalent, so the valuation of the track should be reduced to reflect the 'service capability of the asset';

(c) the track component in the valuation was too high, because estimated rather than actual costs were used for key components such as sleepers; and

(d) the bridges component is undervalued because the estimates understate the cost of concrete and steel bridges.

On that basis, Everything Infrastructure concluded the western system DORC for the coal-carrying network from Macalister to Rosewood should actually be $286.3 million, which is an 18% discount to Connell Hatch's estimate (Everything Infrastructure, November 2009: 19).

Everything Infrastructure also reviewed QR Network's forecast incremental capital expenditure for the period between August 2007 and June 2009, including:

(a) $6.7 million for the Surat Basin Track Upgrade;

(b) a $6.2 million allocation of system-wide capital expenditure; and

(c) $13.5 million for SW Coal Mainline Upgrades.

Everything Infrastructure determined the $6.7 million Surat Basin Track Upgrade was part of a 10-year asset replacement program that was being undertaken to maintain the infrastructure at the level already assumed in the DORC.

> *To avoid double counting of the expenditure associated with the Surat Basin Track upgrade work and to ensure QRN can recover the capital expended on maintaining the line, EI recommend that the entire value of the Surat Basin Track upgrade be deducted from the DORC asset valuation and that all the Surat Basin Track upgrade expenditure be included in the UT3 claimed amount, either as capital or maintenance (Everything Infrastructure, November 2009: 14).*

Everything Infrastructure advised the $6.2 million of system-wide capital expenditure was reasonable although, as there was no evidence it contributed to an increase in western system capacity, it should not be added to the DORC valuation.

Everything Infrastructure considered QR Network's $13.5 million forecast cost for SW Coal: Mainline Upgrades for Additional Tonnages was reasonable based on the cost of similar work for other projects, and therefore was appropriate to add to the opening asset value, as it added capacity to the system.

Everything Infrastructure subsequently reviewed the actual capital expenditure for the August 2007 to June 2009 period that QR Network provided to the Authority in August 2009 (see Table 1.22). It found that the actual capital expenditure of $5.5 million on the Surat upgrade (which was previously forecast to be $6.7 million) did not add to capacity. However, it was reasonable to allow that $5.5 million of actual spending if the forecast cost of $6.7 million had been deducted from the DORC valuation.

The $1.9 million QR Network incurred on upgrades to capacity of the SW Coal Mainline was reasonable, consistent with the treatment of the $13.5 million forecast cost of that work.

Authority's analysis and draft decision

The Authority does not accept that QR Network's proposed western system asset value for assessing coal tariffs is reasonable. Therefore, it has applied a series of adjustments to the DORC valuation and to the way it is allocated between traffics.

Everything Infrastructure has determined that Connell Hatch's assessment of the DORC at August 2007 is too high, and should be reduced to reflect factors including the actual condition of the tracks west of Toowoomba, and longer-term averages for some input costs. The Authority endorses this assessment by Everything Infrastructure, and therefore has used a DORC valuation of $286.3 million as the basis for its assessment of the western system tariff.

QR Network stated the 10-year Surat Basin Track Upgrade Stage 4 was incremental capital expenditure required to 'ensure the Western system track structure is upgraded and fit for purpose' (QR Network, sub. no. 31: 15). This forecast expenditure includes:

(a) $6.7 million between the August 2007 valuation date, and the July 2009 start of the undertaking period; and

(b) $13.6 million during the four-year 2009 access undertaking period.

The 10-year program also includes $15.0 million of expenditure QR Network has forecast will be necessary during the 2013-17 undertaking period.

Consistent with Everything Infrastructure's advice that the Surat Basin Upgrade Stage 4 serves only to bring the western system infrastructure to the standard assumed in the DORC valuation, the Authority proposes to subtract the $22.4 million August 2007 net present value of the forecast spending on the Surat Basin Track Upgrade Stage 4 from the DORC valuation, to give a value of $263.9 million.

Further, the Authority does not accept that QR Network's proposed asset value represents a reasonable estimate of an allocation of the common costs of the western system across all traffics plus the incremental costs of the coal traffics.

QR Network's revised proposal is based on allocating all:

(a) of the pre-1995 assets across all train paths; and

(b) post-1995 capital expenditure to coal.

However, it is not apparent that all post-1995 capital expenditure has been for incremental coal infrastructure. Some of that capital expenditure has been to replace failing wooden bridges with culverts which is an investment that is common to all traffics. Other expenditure has been to support increased tonnages. Yet coal and grain trains on the western system have similar tonnages, lengths and axle loads, therefore any expenditure to handle additional tonnages is common to both coal and grain trains.

To get a better estimate of the asset value on the mixed system, it is necessary to reallocate the August 2007 DORC to generate a valuation of the infrastructure common to all users, by:

(a) adding back in shared infrastructure that would be required if 100% of the paths were used by coal services (while still excluding grain-only assets); and

(b) subtracting the value of coal-only assets including loops and sidings used for loading trains.

In this regard, Everything Infrastructure indicated it would be reasonable to reinstate into the DORC a number of assets which were optimised out by QR Network, including duplicated sections of track between Rosewood and Helidon. It would not be reasonable to reinstate the grain-specific sidings and spur lines. Consistent with this approach, incremental coal-only assets would need to be excluded from the common DORC valuation. Everything Infrastructure has advised that the value of the reinstated infrastructure is $15.6 million, and the value of the coal-only infrastructure is $1.4 million, which makes the full DORC valuation of the common infrastructure at August 2007 $278.5 million.

However, coal users should not pay a tariff based on the full value of the common assets. Rather, they should cover a proportion of those assets, based on the share of train paths they use, as discussed in section 1.17. The Authority has split the $278.5 million common network

DORC valuation using a similar approach to that used by QR Network to split its DORC valuation in its June 2009 proposal. This means the $48.5 million asset value at August 2007 of the incremental capital expenditure since 1995 was subtracted from the August 2007 common DORC valuation, giving a residual asset value of $230.0 million for the pre-1995 common network. The Authority considers that:

(a) coal train services should, for the $230.0 million pre-1995 portion of the DORC, bear a pro rata share of the valuation based on all the western system train paths that are *potentially* available, including those sterilised by the metropolitan peak-hour curfews – this implies a 60.5% share (80% of 75.6%), or $139.1 million; while

(b) for the $48.5 million investment since 1995, the cost should be divided among users on the basis of train paths that are *actually* available on the western system, as investment decisions were made on the basis of the requirements of the traffics actually using the infrastructure – this implies a 75.6% share, or $36.6 million.

This treatment is not inconsistent with the division applied by QR Network in its June 2009 proposal and, including the $1.4 million of coal-only infrastructure, gives a coal-specific DORC of $177.2 million, as at August 2007.

That DORC valuation is brought forward to a 1 July 2009 coal network asset value by:

(a) inflating and depreciating the August 2007 DORC valuation; and

(b) adding 75.6% of incremental capital expenditure completed between August 2007 and June 2009 – comprised of $5.5 million for the Surat Stage 4 project and $1.8 million for the expansion of the southwest coal mainline.

This gives an opening asset value of $176.5 million as at 1 July 2009, which compares to the $306.9 million proposed by QR Network in its revised proposal of June 2009. The principal causes of the difference between QR Network's value and the value proposed by the Authority are that:

(a) Everything Infrastructure's revised DORC for the Rosewood-Macalister mainline is 18% lower than the valuation proposed by QR Network;

(b) QR Network proposed to apply a 75% pro rata adjustment to the pre-1995 component of the DORC valuation, while the Authority is applying a 60.5% pro rata adjustment; and

(c) QR Network proposed to include the full cost of incremental capital expenditure after 1995, while the Authority is applying a 75.6% pro rata adjustment.

Summary of adjustments to DORC

In summary, the Authority is proposing a series of adjustments to Connell Hatch's DORC valuation, to produce a valuation for the coal-only regulatory asset base on the western system at 1 July 2009 based on:

(a) reducing QR Network's proposed DORC valuation to Everything Infrastructure's assessment of $286.3 million, as at August 2007;

(b) subtracting the $22.4 million net present value, at August 2007, of the capital expenditure required to increase the standard of the network to the level assumed in the DORC valuation;

(c) adding back in $15.6 million of track optimised out by QR Network that is common to all traffics, while subtracting $1.4 million of track that is solely used by coal traffics;

(d) applying a pro-rata adjustment of:

(i) 60.5% of the valuation of the common network before 1995; and

(ii) 75.6% of the of the incremental capital expenditure since 1995,

giving a value of $175.8 million;

(e) adding in the incremental coal-only assets at 100% of their DORC valuation of $1.4 million; and

(f) rolling forward the August 2007 valuation of $177.2 million to July 2009 by:

(i) inflating and depreciating the DORC; and

(ii) adding in $7.3 million of incremental capital spending, subject to inflation, depreciation, interest during construction, and a pro rata adjustment of 75.6%.

On that basis, the Authority considers that a reasonable opening asset value for assessing western system coal tariffs between Macalister and Rosewood is $176.5 million.

Decision 1.5

The Authority requires that the opening asset value for assessing coal tariffs on the western system, as of 1 July 2009, be set at $176.5 million.

1.19 Western System Incremental Capital Expenditure

QR Network's proposal

QR Network proposed $52 million of incremental capital expenditure on the western system during the 2009 DAU period, in order to replace expired assets, and provide for an increase in coal-carrying capacity. This figure, in 2007-08 dollars, was broken down into:

(a) $13.6 million, spread out over the four years of the DAU, for the Surat Basin Track Upgrade Stage 4;

(b) $33.8 million in 2010-11 for works on the Macalister to Fisherman Islands section of the mainline required to carry additional tonnes originating from the new Cameby Downs mine, which will have its loading loop at Columboola, near Miles;

(c) a $1.9 million allocation of system-wide capex; and

(d) $2.8 million in interest during construction.

QR Network included all incremental capital expenditure, as it was proposed to be completed over the term of the undertaking, at 100% of its forecast cost.

QCA consultant's analysis

Everything Infrastructure found that the $13.6 million for the Surat Basin Track Upgrade was part of a 10-year program of ongoing asset replacement, and the cost was reasonable based on comparable rates for similar work, including replacing turnouts and reconditioning track. It was reasonable to include spending on the upgrade, as it was completed, assuming the net present value of the forecast cost had been subtracted from the DORC valuation.

Everything Infrastructure showed the $33.8 million forecast expenditure for the Columboola Balloon Loop and Main Line Extension Project included:

(a) $9.7 million for works on the mainline between Macalister and Rosewood;

(b) $19.5 million for works on sections between Rosewood and Fisherman Islands; and

(c) $4.6 million for allowances and contingencies.

Everything Infrastructure indicated the work on the Macalister-Rosewood mainline covered a variety of activities including reconditioning track and replacing timber bridges. The $9.7 million cost was reasonable based on information provided for similar work by QR Network.

There was 'limited evidence' on the $19.5 million for works on sections between Rosewood and Fisherman Islands. However, QR Network had provided a properly executed business case.

The allowances and contingencies included 0.47% for project management, 6.33% for an indicative margin on QR Services' costs, 5.91% for a price escalation contingency, and 5.91% for an additional project contingency.

Everything Infrastructure found the two 5.91% contingencies – a total of 11.82% of costs – appeared high, considering that costs were 'likely to be under strong negative pressure due to the poor economic conditions' and the required works were of a routine nature . Therefore, a single 5.91% contingency would be sufficient, giving a total margin of 12.71%, compared with QR Network's proposal of 18.62% (Everything Infrastructure, November 2009: 21).

Everything infrastructure also concluded the $1.9 million of system-wide capital expenditure proposed by QR Network was reasonable, as it was 'needed to maintain the western system asset at reasonable serviceable levels'.

Authority's analysis and draft decision

The Authority notes that almost half of QR Network's proposed capital spending on the western system during the 2009 DAU period is forecast to be on track sections in the metropolitan system. However, QR Network has also proposed applying the western system tariff for the distance that western system coal trains travel across the metropolitan system.

It is not reasonable for spending outside the western system from Macalister to Rosewood to be applied to a cost build-up for that section of the track – those costs should be dealt with separately (see section 1.23). Therefore, the Authority accepts that it is reasonable to include in the cost base for the Macalister-to-Rosewood section of track capital expenditure of:

(a) $13.6 million for the Surat Basin Track Upgrade Stage 4;

(b) $10.9 million ($9.7 million plus the 12.71% margin proposed by Everything Infrastructure) for the portion of the Columboola project that relates to the Macalister-to-Rosewood section of the western system; and

(c) $1.9 million for system-wide capital expenditure.

This gives total incremental capital expenditure of $27.7 million, including allowances, margins and contingencies.

While QR Network has proposed to include 100% of western system incremental capital expenditure in the regulatory asset base, the Authority considers that only 75.6% of this should be applied to calculating coal tariffs.

The Authority considers this approach to be reasonable as incremental investment improves the standard of the track for both coal and non-coal services, which all benefit from the resulting increased reliability and lower maintenance requirement.

Moreover, as capacity is expanded and extra train paths are allocated to coal, the pro rata allocation to coal for all existing assets will also increase. This effect will be amplified by the extension of the western system tariff across the metropolitan system. As a result, it is likely that the coal carrying train services will, in effect, pay for all of these new investments.

Accordingly, the Authority assessment of QR Network's proposed tariff relies on applying a 75.6% pro rata adjustment to incremental capital spending, and this approach is consistent with the Authority's treatment of post 1995 capital expenditure in the DORC valuation.

1.20 Western Systems Maintenance Costs

QR Network's Proposal

QR Network stated the western system track used by coal services was older and of a lower standard than would be expected for a heavy-haul railway.

> *As a consequence of the system age and track standard, the track section between Rosewood and Macalister requires a higher cost maintenance regime in order to safely and reliably deliver the forecast and future tonnages. To sustain the track in a fit for purpose state, maintenance activities such as:*
>
> - *resleepering, track reconditioning, rail and turnout grinding, fire and vegetation control and rail stress adjustment; and*
> - *track and structures inspections and bridge repairs;*
>
> *will be high (QR Network, sub. no. 30: 6).*

QR Network proposed western system maintenance costs totalling $55.9 million over the four-year 2009 DAU regulatory period, including a 15% margin on work performed by related company QR Services. This claim, in 2007-08 dollars, included:

(a) annual costs averaging $10.9 million over the period. Those costs were broken down into:

  (i) $7.4 million for track maintenance, including mechanical resurfacing, rail grinding, fire and vegetation control and other activities;

  (ii) $1.7 million for track-side systems maintenance, including rectifying faults on equipment such as public level crossings;

  (iii) $1.8 million for structures maintenance, including drainage work, inspections, and painting and repairs to bridges; and

(b) a $12.4 million allowance in 2009-10 for mechanical re-sleepering, a procedure which takes place every four or five years on the western system.

QR Network allocated the maintenance costs to coal based on the proportion of the gross tonne kilometres on the Macalister-to-Rosewood section of the western system used by coal services. QR Network forecast that this would average 92.76% over the 2009 DAU period (QR Network, sub. no. 30: 29).

Stakeholders' comment

The QRC considered the allocation of maintenance costs to coal, based on gtks, was unreasonable given many costs were unrelated to train weight.

Authority consultant's analysis

Everything Infrastructure found QR Network's submission emphasised the likely upward pressure on costs during the 2009 DAU period. 'This upward pressure has eased since the time of the Submission and a lower escalation should be applied' (Everything Infrastructure, November 2009: 23). This applied to consumables such as rail, ballast and other track components, as 'each of these items would be subject to the same easing in market conditions over the UT3 period'.

Everything Infrastructure therefore concluded that QR Network's proposed maintenance costs should be reduced by:

(a) 1.7% to reflect lower forecast fuel costs;

(b) 7.5% to reflect the difference between QR Network's forecasts of costs of consumables such as rail, sleepers and ballast, and Everything Infrastructure's estimates of what those costs should be;

(c) 11% to bring QR Network's forecast costs for maintenance of structures and systems back in line with long-term trends; and

(d) 4% to reflect Everything Infrastructure's assessment that QR Network's claimed 15% margin on work by QR Services is excessive.

Authority's analysis and draft decision

QR Network's proposed maintenance spending on the western system works out to $5.83/'000gtk. This compares with a range of $1.48/'000gtk to $3.19/'000gtk for the central Queensland systems.

QR Network has argued that the western system would be expected to have higher operating costs because it has low volumes and, in the Toowoomba range crossing, one of the most challenging stretches of track on the Queensland rail network (QR Network, sub. no. 30: 6).

The Authority accepts that QR Network faces comparatively high maintenance costs on the western system, given the route and age of the network – both of which are reflected in the DORC valuation, as adjusted by the Authority.

However, Everything Infrastructure has advised that, even given those considerations, the costs proposed by QR Network are excessive. The Authority proposes to accept Everything Infrastructure's advice that the maintenance estimates should be reduced by 1.7% for fuel costs, 7.5% for consumables costs, and 11% for structures and systems costs.

The Authority also accepts Everything Infrastructure's advice that the 15% margin on QR Services' costs proposed by QR Network is too high, given the nature of the western system maintenance tasks. The Authority received similar advice in relation to its maintenance costs in

central Queensland, from consultancy firm GHD. GHD advised that, for central Queensland, the 15% margin should only be applied to direct labour costs (see section 1.11). This resulted in a reduction in the margin from 15% to 3.7%, when averaged across all QR Network's labour and non-labour costs. The Authority proposes to apply that same 3.7% margin to western system maintenance costs.

The Authority therefore proposes to use a total maintenance cost of $40.1 million (including $17.6 million in 2009-10) during the 2009 DAU regulatory period to derive tariffs for the western system.

The Authority notes the QRC's argument that some categories of maintenance, including work on the right of way not directly related to the track, do not vary with tonnage carried. However, QR Network has shown that track-related costs averaged more than 80% of maintenance costs on the western system between 2001 and 2008, and track and structure-related averaged more than 90%. QR Network has forecast those proportions will be 75% and 88% during the term of the 2009 DAU. Therefore, the Authority has concluded that apportioning the maintenance costs based on gtks is reasonable.

The Authority also notes that some categories of maintenance activity, particularly mechanised re-sleepering, have been included in both the maintenance and capital expenditure claims from QR Network for the western system. The Authority accepts that it is reasonable that the same activity may at times be treated as either maintenance or capital expenditure although, as a general rule, mechanical re-sleepering has more of the characteristics of replacement capital expenditure.

The Authority has raised with QR Network its concerns about potential double-counting of such procedures and QR Network has provided evidence to show that it has taken measures to ensure that a given program of work is only claimed under a single category. The Authority accepts this assurance from QR Network, although it reserves the right to audit QR Network's spending and allocations during the course of the undertaking. The Authority also notes that any activities which are underwritten through AFDs must, for the sake of consistency, be included as capital expenditure when assessing the tariff.

Decision 1.6

The Authority requires QR Network to use a total maintenance cost of $40.1 million during the 2009 DAU regulatory period to derive tariffs for the western system.

1.21 Western System Operating Costs

QR Network proposed western system operating expenditure totalling $11.2 million over the four-year 2009 DAU regulatory period. This claim, in 2007-08 dollars, included:

(a) $5.8 million for regional costs, including train control and regional infrastructure management, all of which are identified costs specific to the western system;

(b) $5.4 million for system-wide costs, of which 80% is allocated from forecast costs for the QR Group, and 20% is from identified costs specific to the western system;

(c) $1 million for risk premium (self-insurance), calculated based on the per-gtk cost for the Moura system; and

(d) $0.1 million for working capital, calculated as 0.3% of total revenue.

QR Network's regional costs for the western system average $1.4 million a year, in 2007-08 dollars. The Authority accepts these costs as reasonable, as they are based on similar rates to those in central Queensland.

QR Network's allocation of system-wide costs averages just less than $1.4 million a year. The Authority accepts the $0.27 million a year which has been derived from identified costs. However, the $1.09 million a year which has been allocated from QR-wide costs is excessive. QR Network has explained that:

> *The allocation of costs to Western System coal was based on the average of the system-wide standard cost allocator for the Moura and Newlands systems (excluding GAPE). Although the Western Coal System carries less coal than Moura or Newlands it has comparable costs because of the greater haul length and smaller train size in the Western Coal system (QR Network, sub no. 29: 29).*

The Authority rejects QR Network's proposal for allocating QR-wide costs to the western system by taking the average of the standard allocators assigned to Moura and Newlands, the two smallest systems in central Queensland. The standard allocator for Moura for 2009-10 is 2.6% of total QR Network overheads and other costs that apply across all the coal and non-coal operations, while the allocator for Newlands is 2.7%. QR Network has therefore chosen the average of the two (i.e. 2.65%) as the allocator of QR Network-wide costs to the western system.

In comparison, the western system is forecast in 2009-10 to account for 33% of the average net tonnes between the Moura and Newlands systems, and 42% of the average gross tonne kilometres. The Authority accepts that the small trains on the western system lead to higher costs, because more services are required to carry a given amount of coal. However, those effects are already substantially accounted for in the regional costs, which have been assigned to the western system based on identified costs.

The Authority proposes to apply an allocation of system-wide costs that is based on the average of the allocations for Moura and Newlands, and is related to the amount of coal traffic on the western system relative to the traffic on the two central Queensland systems. The Authority considers 50% of the Moura-Newlands average (compared with 100% proposed by QR Network) to be reasonable, given the relative levels of traffic.

The Authority therefore requires that QR Network allocate system-wide costs to the western system by using 50% of the average of the allocators of the Moura and Newlands systems. This means that the western system allocator will be 1.33% of the QR Network total, not the 2.65% proposed by QR Network.

QR Network's has proposed to base its western system risk premium on that for the Moura system, and therefore include $0.13/'000gtk in the operating costs for the western system. The Authority accepts this $0.13/'000gtk charge, as it is in line with the Authority's own calculations, and is derived on a reasonable basis.

The Authority also accepts QR Network's proposal to include a working capital allowance of 0.3% of total revenue for the western system, consistent with the treatment in past undertakings, and with the allowance applied in central Queensland in the 2009 DAU.

Decision 1.7

The Authority requires that QR Network allocate system-wide costs to the western system with a weighting that is 50 per cent (50%) of the average of the allocators for the Moura and Newlands systems in central Queensland.

1.22 Western System Tariff

The Authority notes QR Network's explanation that its proposed tariff of $22.07/'000gtk is reasonable as it is a price that is below QR Network's estimate of a ceiling price (QR Network, sub. no. 29: 30).

QR Network advised that the $22.07/'000gtk tariff was equivalent to an average of $6.77/nt, and that was within the range of tariffs proposed for central Queensland (QR Network, sub. no. 1: 119).

While this is true for the journey on the western system to Rosewood, it omits the 76.08 km that western system trains must travel across the metropolitan system. QR Network's proposed tariff of $22.07/'000gtk actually converts to $9.86/nt for the full distance to the Port of Brisbane, which is more than 30% higher than the highest tariff per net tonne proposed for central Queensland in the 2009 DAU.

In considering this proposal the Authority has sought to develop a robust, transparent and repeatable methodology for developing a tariff. The Authority's approach is not dissimilar to the approach QR Network relied upon to develop its revised ceiling price submitted in April 2009 – but with alternative input assumptions.

The Authority has used all the assumptions and conclusions discussed above to develop a model for assessing the western system tariff. The Authority's model's features include:

(a) coal traffics paying for their share of the regulatory asset base using a pro-rata allocation based on the proportion of the mainline paths they are able to use on the western system mainline between Macalister and Rosewood (ie excluding the 20% effectively allocated to passenger traffic on the metropolitan system);

(b) incremental capital spending allocated on the same pro-rata basis as the post-1995 portion of the opening asset value and DORC;

(c) the same weighted average cost of capital as for central Queensland;

(d) maintenance costs allocated based on coal services' share of gross tonne kilometres from coal traffics on the Macalister-Rosewood sections;

(e) a mixture of identified and allocated operating expenditure; and

(f) volumes based on contracted services for the Macalister-Rosewood sections, namely 5.5, 6.4, 7.5 and 7.5 million net tonnes respectively for the years 2009-10 to 2012-13.

The cost build-up gives an annual revenue requirement of $44.1 million in 2009-10, broken down into:

(a) a return on capital of $16.8 million;

(b) a return of capital (based on approved asset lives) of $10.9 million;

(c) less an inflation adjustment of $4.5 million;

(d) maintenance costs of $18.4 million; and

(e) operating expenditure of $2.5 million.

The cost buildup gives a tariff of $16.81/'000gtk, based on QR Network's contracted volumes. This tariff is effectively a ceiling price for the western system. This tariff equates to $7.51/nt, and compares with the Authority's proposed central Queensland tariffs, which range from $3.54/nt in the Newlands system to $5.08/nt in the Blackwater system. It is 40% higher than the tariff for the June quarter of 2009.

1.23 Metropolitan System

Trains carrying coal from the Surat Basin travel as much as 212 kilometres across the western system tracks, where freight traffic dominates, with just two weekly passenger services. Then, at Rosewood, they join the metropolitan system, where they travel 76 kilometres to the export terminal at Fisherman Islands, traversing a commuter rail network where passenger traffic dominates.

Even though the metropolitan system accounts for 26% or more of the distance travelled by any western system train carrying coal for export, QR Network has not undertaken a detailed assessment of the coal related costs for the metropolitan system. Rather, QR Network has indicated the metropolitan system would have a very high regulatory asset base which would result in a ceiling price higher than that for the track west of Rosewood and, therefore, any price which falls below that ceiling is reasonable.

> *QR Network believes that the activity of establishing a stand-alone coal tariff in the Metropolitan System would be onerous and not add any value as the resulting tariff would be of such a high dollar value that it would be unrealistic to charge this amount to coal hauls (QR Network, sub. no. 29: 15).*

QR Network stated the coal traffics benefited from the maintenance and capital expenditure in the metropolitan system conducted for passenger and freight services. The specific extra spending to cope with coal trains' higher axle loads was 'minimal' as a high standard of track was already required for passenger safety and ride comfort.

> *In any case, the application of the price determined for the Rosewood to Macalister section is considered to provide a reasonable contribution towards these costs, including contributing towards the degradation that can result from coal trains' higher axle loads (QR Network, sub. no. 29: 16).*

On this basis, the QRC considered that, as the incremental cost of coal trains on the metropolitan system was 'minimal', the tariff for those trains could also be minimal (QRC, sub. no. 44).

While the Authority understands the logic of this argument, it does not believe that it would be reasonable for coal trains to make a minimal contribution to the metropolitan system. The Authority accepts that coal trains should pay the costs of the wear and tear they impose on the tracks in metropolitan system that they use, and should make a material contribution to the cost of providing that part of the network.

Conversely, the Authority does not accept QR Network's argument that a DORC valuation of the metropolitan system would imply a very high regulatory asset base for coal traffics. Much of the metropolitan system can be viewed as a stand-alone passenger system. Coal trains are excluded from the morning and evening peaks to allow for the operation of passenger trains. Western system access agreements have no security of tenure beyond 2015 because, as the Authority understands, this provides for the resumption of those train paths for increased passenger services if required.

Moreover, to the extent that there are sections of track that are dedicated to freight, they are used by traffics other than coal (e.g. wheat), so QR Network should not be seeking to recover the full costs of those assets from the coal-carrying train services.

Given these competing views, and in the absence of any clear evidence one way or another, the Authority accepts as reasonable QR Network's argument that the tariff west of Rosewood can be extended across the metropolitan system. On that basis, the Authority proposes the extension of the tariff of $16.81/'000gtk, as derived in section 1.22, across the metropolitan system.

The Authority notes that QR Network has not proposed a way of reflecting incremental capital spending on the metropolitan system. As discussed in section 1.22, the Authority rejects QR Network's proposal to include in its incremental capital expenditure for the Rosewood-Macalister network $22.0 million ($19.5 million plus 12.71% for contingencies and other overheads) for works on sections between Rosewood and Fisherman Islands.

However, the Authority proposes to give QR Network a return on and of capital on all reasonable requests for incremental capital expenditure on the metropolitan system that is required for coal services.

For the $22.0 million currently proposed, with a 75.6% pro rata adjustment for coal's share of the train paths, and a return on capital of the WACC, the resulting extra charge is $268/train path for the metropolitan line sections, above the tariff derived for the network from Rosewood to Macalister. This will be included in the smoothed train path charge shown below in section 1.24.

The Authority notes that QR Network has provided limited justification for the $22 million. The Authority is prepared to accept this forecast capital expenditure as part of the western system coal tariffs for the 2009 DAU. However, consistent with the treatment of capital expenditure in central Queensland, for that expenditure to be included in tariffs determined as part of future undertakings, QR Network will need to demonstrate the prudency of the actual expenditure, including the extent to which it relates to coal-carrying train services.

1.24 Western System Revenue Adequacy and Tariff Structure

QR Network's product is essentially train paths, and its major costs are the capital investment and maintenance required to create and sustain the infrastructure that provides those paths. However, it has chosen for the western system a volume-based tariff which charges users a price per gtk.

This tariff structure means that QR Network will benefit from volumes above those forecast in the 2009 DAU. Similarly, QR Network may experience a revenue shortfall for volumes below forecast, although this impact will be ameliorated by the take-or-pay arrangements in access agreements. It is reasonable for QR Network to receive some benefit for increased volumes, as some of its costs increase in proportion to the tonnage carried on the network. However, there should be a portion of the tariff that does not vary with volumes.

This would further encourage QR Network to create and make available additional train paths for coal-carrying trains services. It would also facilitate the introduction of new, more technically advanced train consists. In particular, it would allow QR Network to retain some, but not all, of the additional revenue that could be derived for the tonnage increases that would result from the introduction of close-coupled wagons.

The Authority therefore requires QR Network to split the western system tariff of $16.81/'000gtk into two parts, with half recovered through a cost per gtk, and half through a cost per train path. The two parts are:

(a) an AT_1 volume-based charge of $8.41/'000gtk; and

(b) an AT_2 cost per train path of $3,962.

These charges will only apply to those coal services travelling from the Surat Basin mines. For the sake of simplicity, services from Ipswich-area West Moreton mines, which travel solely on the metropolitan system, and therefore do not consume capacity on the western system tracks west of Rosewood, will be charged a one-part volume-based tariff of $16.81/'000gtk.

Further, and consistent with the changes QR Network has proposed to make to the central Queensland tariffs, the Authority requires QR Network to escalate the western system tariffs on an annual basis, rather than the quarterly escalation it has proposed in the 2009 DAU.

1.25 Western System Conclusion

The Authority's proposed tariffs for the western system are consistent with the principles for price-setting for a regulated monopoly.

They provide QR Network with sufficient revenue to meet its efficient costs, including a return on its investment, while allowing it to capture gains from productivity improvements during the term of the undertaking.

The tariffs reward efficient investment and protect the interests of QR Network and its customers by using a multi-part pricing structure.

The derivation of the tariff also provides the transparency and certainty required for all above-rail operators and their customers that rely on the western system.

Further, the tariff is consistent with the principle in QR Network's access undertaking that, when assessing prices for access to a constrained network, the Authority can assume that all users pay their proportionate share of capacity on that network.

Decision 1.8

The Authority requires that QR Network amend its draft access undertaking to provide for:

(a) coal services from Surat Basin mines to pay a two-part tariff comprising an:

(i) AT_1 tariff of $8.41/'000gtk; and

(ii) AT_2 tariff of $3,962/train path; and

(b) coal services from Moreton mines, operating solely within the metropolitan system, to pay a single AT_1 tariff of $16.81/'000gtk; and

(c) annual rather than quarterly escalation of western system coal tariffs.

2. SCOPE AND INTENT OF UNDERTAKING

Part 2 of QR Network's 2009 DAU sets out the undertaking's purpose, the range of services covered and term, including the circumstances when it will expire.

QR Network has proposed a number of significant amendments to Part 2 of the undertaking to reflect the changes to QR Ltd's corporate structure and to provide for further changes to the ownership, financial and operating circumstances of QR Network and to QR Ltd more generally.

The Authority proposes to reject amendments that allow the early termination of the undertaking and remove the process to transfer to QR Network declared infrastructure that is owned by a related party.

The Authority also believes the proposed clauses that set out the intent of the 2009 DAU should be amended to better reflect the balance of the access principles contained in the QCA Act.

2.1 Introduction

Part 2 of the undertaking establishes the scope and administration of the undertaking. This includes defining the term of the undertaking, the rail infrastructure subject to the undertaking and the process for reviewing the infrastructure covered by the undertaking. QR Network does not propose to roll-forward its obligations in the 2008 undertaking but instead has sought to introduce substantial changes. According to QR Network, these amendments are to give effect to QR's corporate restructure.

Major amendments to Part 2 of QR Network's 2009 DAU include proposed changes to the scope of the undertaking (section 2.2), introducing triggers for the early termination of the undertaking (section 2.4) and amendments to the intent of the undertaking (section 2.3).

2.2 Scope of undertaking and transfer of assets (review of rail infrastructure)

The declaration of rail infrastructure relates to facilities managed by QR Ltd (including a subsidiary) that are necessary for operating a railway, including railway track and works built for the railway, and other infrastructure associated with a railway's operations, including bridges, marshalling yards, overhead electric power supply systems and train operation control facilities. The declaration does not extend to freight centres or depots, maintenance depots and workshops, office buildings or housing, rolling stock or other vehicles that operate on a railway.

In the past, the majority, but not all (e.g. stations and platforms), of the declared infrastructure has been managed by a business unit of QR Ltd (i.e. QR Network Access (QRNA)). In this context, QR Ltd's 2001 and 2006 access undertakings were limited to those below-rail assets managed by QRNA.

However, those undertakings also included provisions that, if so requested, declared infrastructure not managed by QRNA could be transferred to QRNA. This arrangement has been important as it has provided a mechanism to ensure that third party access seekers could negotiate for access to required infrastructure directly with QRNA, which had an arm's length relationship with the remainder of QR Ltd.

These arrangements were retained in the 2008 undertaking, but they became more complicated as it would now involve a transfer of ownership of assets between two separate, but related, corporate entities (i.e. QR Ltd to QR Network). As a result, the Authority approved the 2008 undertaking as it was accompanied by an undertaking from the QR Ltd Chief Executive Officer

that the ownership of any declared assets would be transferred, as may be required, from QR Ltd to QR Network.

QR Network's Proposal

Consistent with the 2008 undertaking, QR Network has proposed that the 2009 DAU relate to rail infrastructure that is owned by QR Network. However, QR Network has deleted from the 2009 DAU the process to transfer to QR Network any declared facilities that are owned by a non-QR Network entity.

In support of this amendment, QR Network has argued that, as it is a legal entity that is separate from QR Ltd, the 2009 DAU should only refer to assets that it owns and not assets owned by a separate entity.

Stakeholders' comments

In general, stakeholders were concerned about QR Network's proposed narrowing of the scope of 2009 DAU.

Xstrata rejected QR Network's proposed amendment to the scope of the undertaking and argued that the scope of the 2009 DAU should reflect the existing arrangements which include access to rail infrastructure owned by QR Ltd and its related entity (Xstrata, sub. no. 43: 18).

QRC stated that the scope of the proposed 2009 DAU should be amended to reflect QR Network's 2008 undertaking arrangements (which covered declared services provided by QR Limited) and provide mechanisms for transferring any infrastructure managed by its network business.

QRC considers that:

> *The limited coverage proposed for the QR Network undertaking could also be used to circumvent existing regulatory arrangements, as QR Ltd could establish new subsidiaries with control of infrastructure covered by the declaration, outside the scope of QR Network's 2009 DAU. Nonetheless, addressing these concerns by creating a series of additional undertakings would be a difficult and unproductive process.*
>
> *It is unclear how the proposed clause 3.1(d) would enable QR Network to effectively obtain responsibility for assets or operations that are integral to provision of the below-rail services from all QR Network related parties (QRC, sub. no. 38: 13).*

Asciano added that it was concerned (Asciano sub. no. 33: 8) that the 2009 DAU did not cover the:

(a) use of platforms in the Brisbane metropolitan area for crew changeover as these assets are owned/managed by QR Ltd and therefore not covered by the 2009 undertaking;

(b) use of interstate standard gauge track e.g. between Acacia Ridge and Fisherman's Island.

QR Freight supported the scope of the 2009 DAU being applied only to infrastructure owned by QR Network (QR Freight, sub. no. 37: 14).

Authority's analysis and draft decision

The Authority accepts that the majority of the declared facilities are owned by QR Network. The most obvious exception to this is stations and platforms. This has arisen because, over a period of some time, below-rail facilities and services have been transferred to QR Ltd's

below-rail business. In particular, based on information provided by QR Network, it is apparent that:

(a) private rail infrastructure is connected directly to infrastructure owned by QR Network, and not via infrastructure that is managed by a QR Ltd related party as was sometimes the case in the past;

(b) responsibility for managing marshalling yards has progressively been transferred to QR Network, although in some locations this function is performed under contract by QR Ltd; and

(c) the Mayne Control Centre was transferred to QR Network as part of the organisational restructure in mid-2008.

There remains, however, some uncertainty whether all declared infrastructure has been transferred to QR Network.

Moreover, as the QRC indicated, there also exists the possibility that new below-rail facilities could be either owned by QR Ltd or a subsidiary of QR Ltd other than QR Network. Any such infrastructure would not be governed by the terms of QR Network's proposed 2009 DAU.

As a result, there remains a possibility that some highly significant facilities could be created, or could continue to be owned, by a QR Network related party. If this were to be the case, then negotiation of access to those facilities would become more complex which could significantly adversely affect the rights of third party access seekers if the successful completion of access negotiations is elongated.

The Authority accepts that an independent corporation should not be held responsible for the obligations of a separate corporation. However, while QR Network is a corporate entity separate from QR Ltd, it continues to be controlled by QR Ltd. In particular, QR Network is currently wholly owned by QR Ltd and its Board does not include any independent directors.

In considering this matter, the Authority accepts that these circumstances may change. In particular, the Authority is aware that the Queensland Government has announced that significant parts of QR Network and QR Ltd will be offered to the market for sale. Under such circumstances, it is possible that separate, independent corporate entities will own declared rail infrastructure in Queensland. However, the timing and the result of that sale process are uncertain at this time.

Therefore, the Authority must consider this matter based on the circumstances that currently exist.

Accordingly, the Authority believes that the arrangements in the 2008 undertaking should continue. In particular, the Authority proposes that the process to transfer declared facilities from a QR Network related party to QR Network should be reinstated into the 2009 DAU (potentially via inclusion in clause 3.6 of the 2009 DAU which contains more limited requirements to review the ownership and responsibility for rail transport infrastructure). These arrangements in the 2008 undertaking are currently made enforceable through an undertaking from the QR Ltd Chief Executive Officer. The Authority believes that this arrangement should continue but that the undertaking should be given by the QR Ltd Board.

Decision 2.1

The Authority requires QR Network to:

Include in the 2009 DAU (by amending clause 3.6 or otherwise) the provisions of clause 2.2 (f)-(i) of the 2008 undertaking (subject only to consequential amendments to clause cross-references, such as to reflect the changes to the positioning of the dispute resolution provisions within the 2009 draft undertaking); and ...

Decision 2.2

Procure that the QR Ltd Board provides an undertaking to the Authority that QR Ltd and all other QR Parties will take such actions as are necessary to enable QR Network to comply with its obligations under the 2009 DAU where it is reliant on QR Ltd (or other QR Parties) in order to do so.

In particular, the QR Ltd undertaking would need to expressly require:

- **Provision of access to land (in accordance with paragraph (ii) of the definition of 'Access'), which is owned by a QR Party or which a QR Party has through a lease, licence or other arrangement with the owners of the land or pursuant to the TIA, the authority to authorise access to;**

- **QR Ltd or other QR Parties to take the steps required to allow QR Network to obtain ownership of rail transport infrastructure required by an Access Seeker to obtain Access to the declared service (in accordance with the provisions of clause 2.2 of the 2008 undertaking which this decision is requiring be included in the 2009 DAU);**

- **QR Ltd or other relevant QR Parties supplying electric energy in accordance with clause 2.3 (e) of the 2009 DAU (as required to be amended by the decision); and**

- **QR Ltd and other QR Parties to comply with the arrangements prescribed in Part 3 (Ring-fencing) of the undertaking, including the provisions of Part 3 as required to be amended by the Decision.**

Decision 2.3

The Authority requires QR Network to amend clause 2.3(e) to extend its application to Related Parties of QR Network (as per the wording in the 2008 undertaking, including the language regarding QR Network procuring supply from such parties).

The Authority has decided not to seek to amend the 2009 DAU to take account of Asciano's comments. First, Asciano could seek to gain the access to the crew change-over facilities it requires by:

(a) directly approaching QR Passenger Pty Ltd; or

(b) seeking to have the required facilities transferred to QR Network by using the provisions in either the 2008 undertaking or, as a result of this draft decision, in the 2009 DAU.

Second, it would be inappropriate for the Authority to seek to have the interstate standard gauge track (e.g. between Acacia Ridge and Fisherman's Island) included within the scope of the 2009

DAU as these facilities are specifically excluded from declaration under section 5 of the *Queensland Competition Authority Regulation 2007*(the QCA Act).

2.3 Intent of undertaking

QR Network's proposal

The 2008 undertaking includes a section that sets out a high level statement of intent that draws on the access principles in the QCA Act and the *Transport Infrastructure Act 1994* (TIA).

QR Network has proposed to broaden the intent section of the 2009 DAU undertaking by including additional provisions with emphasis on QR Network's commercial risks and returns. Amongst other things, the proposed amendments focus on QR Network recovering all reasonable costs while realising a reasonable rate of return on all its new investment.

Stakeholders' comments

QRC believes that, by amending the intent section of the undertaking in its proposed form, could send incomplete or misleading signals regarding the entirety of issues which an undertaking seeks to address. QRC considers that:

> *…if this particular section was to be maintained, then the clause would need to include a balanced reflection of the matters which the undertaking seeks to achieve. QRC suggest this would include: developing prices that include a reasonable rate of return commensurate with regulatory and commercial risks of QR Network and QR Network's actual performance, developing prices based on efficient costs (as opposed to reasonable costs), maintaining efficient and seamless processes in order to encourage competition in above-rail market and improving productivity and seeking innovation in order to maintain competitiveness and/or reducing costs (QRC, sub. no. 38: 13).*

QR Freight believes that the objectives of 2009 undertaking should be broadened to include recognition of QR Network's role as a partner in maximising supply chain throughput (QR Freight, sub. no. 37: 6).

Authority's analysis and draft decision

The principles in the intent section of the 2009 DAU propose, amongst other things, that there should be an appropriate balance between the legitimate business interests of QR Network, the interest of the public and the interest of access seekers. In this context, QR Network has identified that its interests include recovering all reasonable costs and earning a reasonable return on its assets and new investments.

While the Authority does not take issue with the principles QR Network has sought to include in this part of the 2009 DAU, it does accept the QRC's argument that the proposed intent of the 2009 DAU should better reflect the objectives of Part 5 of the QCA Act.

In particular, the QCA Act has recently been amended to include an objects clause (section 69E) and pricing principles (section 168A) that emphasise the economic efficient (including efficient costs) operation of infrastructure 'with the effect of promoting effective competition in upstream and downstream markets'.

QR Network's proposed drafting of this section of the undertaking lacks the same emphasis on efficient costs and in promoting competition in other markets. The Authority has developed a revised draft of this section to address its concerns (see appendix 2 for detailed drafting).

Decision 2.4

The Authority does not accept QR Network's proposed amendments to the intent section (clause 2.2) as it does not present a balanced view. Therefore, the Authority requires QR Network to amend clause 2.2 in line with the detailed drafting provided in appendix 2.

2.4 Duration of the undertaking and early termination triggers

The QCA Act provides that an undertaking must include a termination date. It also provides that, once an undertaking is approved, the facility owner (in this case QR Network) can seek to amend or withdraw the undertaking subject to the Authority's approval. The Authority can only seek to amend an approved undertaking if a term of that undertaking is inconsistent with the QCA Act.

QR Network's proposal

QR Network proposed a four year term for its 2009 DAU; that is, a termination date of 30 June 2013 with options to terminate the undertaking prior to then in the event of:

(a) a third party (non-government) party provides debt or equity funding to QR Network or a related QR party;

(b) QR Network ceases to be a subsidiary of QR Ltd or QR Network's below rail functions are transferred, in part or in whole, to another entity; and

(c) QR Ltd, or related party, ceases to operate train services (other than passenger train services).

Stakeholders' comments

All stakeholders supported the proposed four year term for the 2009 undertaking.

However, stakeholders were generally opposed to the introduction of early termination triggers, largely on the grounds of regulatory certainty (Asciano, sub. no. 33: 11, Ensham, sub. no. 36: 1, QRC, sub. no. 38: 14, and Xstrata, sub. no. 43: 18). Stakeholders believe that the termination date should be explicitly stated in the undertaking and that, in the event of any changes to the corporate or financial structure of QR Network, changes to the undertaking can be made through a draft amending undertaking provisions of the QCA Act. In contrast, the proposed early termination triggers placed users at the discretion of QR Network.

In this regard ARTC stated that:

> *It is not clear why a change in financing or ownership of QR Network or a related party would warrant termination of the undertaking. If the circumstances at the time were such that the undertaking was not appropriate, QR network could submit an amending undertaking for QCA approval (ARTC, sub. no. 32: 5).*

Ascaino rejected QR Networks proposal for early termination triggers as it believes that there are appropriate mechanisms within the QCA Act under section 148 that allows QR Network to withdraw the 2009 DAU once it is approved (Asciano, sub. no.33: 10).

Ensham stated that:

> *QR Network has sought to include a range of termination events in the undertaking, and has flagged an intention to submit a series of amending undertakings during the term, The effect of this is that QR Network will have numerous opportunities to revise the undertaking, while other interested parties are effectively locked into the approved undertaking for the term (Ensham, sub. no. 36:1).*

In contrast, QR Freight supports the proposed early termination triggers in the 2009 undertaking (QR Freight, sub. no. 37: 14).

Authority's analysis and draft decision

One of the functions of an access undertaking is that it provides a degree of certainty to all parties on what the terms and conditions of access will be over its life. In particular, the QCA Act requires the Authority to arbitrate any dispute between an access seeker and QR Network in a way that is consistent with the terms of an approved undertaking. In addition, an approved undertaking provides QR Network with a "safe harbour" in that QR Network cannot be found to have breached the preventing or hindering access provisions of the QCA Act (s. 104 and s. 125) if it acted in accordance with an approved access undertaking.

Too short a term of an undertaking will provide all parties with only limited certainty on the terms and conditions of access. Too long a term, and circumstances may have changed such that the undertaking is either no longer relevant or inappropriate. This is particularly problematic for access seekers and users of the infrastructure as they have no ability to seek to amend an approved undertaking.

In this context, the Authority does not believe that QR Network's proposed termination triggers are reasonable; in particular, the events are:

(a) controlled by QR Network or QR Ltd; and

(b) can be easily triggered (e.g. QR Network secures a minimal amount of debt finance from a non-government agency).

Under these circumstances, the 2009 undertaking could expire immediately and access seekers would then have no detail on what the terms and conditions of access would be. Even without these events being triggered, the mere presence of them in the undertaking could have a debilitating impact on the preparedness of third parties to seek access to rail infrastructure in Queensland; whether that be in the form of taking risks to secure new customers or to invest in new rolling-stock. That is, these trigger provisions impose risks onto access seekers and their customers that they are not in a position to effectively manage.

In contrast, the QCA Act provides QR Network with the discretion to seek to amend or withdraw the undertaking. This is an option that QR Ltd has chosen to regularly exercise since the 2001 undertaking was approved, including the withdrawal of the 2006 undertaking and the submission of the 2008 undertaking upon the creation of QR Network as a subsidiary of QR Ltd.

On this basis, the Authority requires that the trigger mechanisms be deleted from the definition of the terminating date in part 10 of the 2009 DAU.

Decision 2.5

The Authority does not accept QR Network's proposed definition of terminating date. The Authority requires QR Network to amend the definition of terminating date in part 11 as follows:

"Terminating Date" means 30 June 2013.

3. RING-FENCING ARRANGEMENTS

Part 3 of the 2009 DAU sets out the ring-fencing arrangements that QR Network proposed in relation to managing confidential information, complaints handling, decision making procedures, compliance and enforcement.

QR Network has proposed some significant amendments to part 3 of the undertaking on the basis of changes to QR Ltd's corporate structure, including the creation of QR Network as a subsidiary responsible for managing the majority of the declared service.

In contrast, as QR Network remains wholly owned and controlled by QR Ltd, the Authority does not accept that the changes in QR Ltd's corporate structure are sufficient to justify the proposed changes to the undertaking's ring-fencing arrangements. The Authority is particularly concerned about the proposed relaxation of the arrangements for handling confidential information and managing declared services currently provided by a QR Network related party.

The Authority is proposing amendments to the 2009 DAU that better reflect the arrangements that were approved as part of the 2008 undertaking.

The Authority considers that the decision making provisions and the associated obligations should be retained in the 2009 DAU.

3.1 Introduction

Part 3 of the undertaking imposes administrative arrangements to manage the complexities created by the vertically integrated nature of the QR Ltd group. For example, it imposes limitations on the flow of information that QR Network receives confidentially as part of its negotiations with access seekers and requires QR Network to make consistent decisions in relation to access seekers/holders irrespective of whether they are a related party or a third party.

Also, management of the track infrastructure has been spread across QR Ltd's various business units. While the majority of the declared infrastructure has been managed by a separate business unit (now QR Network), some of the declared infrastructure has been managed by QR Ltd's above rail business units. The undertaking has sought to address this in a number of ways including, by setting out line diagrams that illustrate the scope of rail infrastructure in Queensland and identifying management responsibility between QR Network, other QR Ltd entities and non-QR (i.e. private) entities; providing a mechanism for declared infrastructure to be transferred to QR Network, and to review the management arrangements at marshalling yards.

This chapter discusses how QR Network proposes to alter its previous obligation in relation to decision making (section 3.2), handling of confidential information (section 3.3) and the management of marshalling yards (section 3.4). The arrangements relating to transferring to QR Network declared infrastructure that is owned by a QR Network related party (which impact on clause 3.6 of the 2009 DAU) were discussed in section 2.2 as part of the Authority's consideration of the scope of the 2009 DAU.

While the Authority has reviewed QR Network's proposed new arrangements in relation to line diagrams this decision does not discuss the proposed changes in detail. The 2009 DAU does not fundamentally alter QR Network's obligations, in particular in relation to publishing and amending the line diagrams. Stakeholders have also indicated they support the 2009 DAU's line diagram arrangements.

In this context, the Authority notes that QR Network has sought to remove the line diagrams from the undertaking, previously published in schedule A, to significantly reduce the length of

the 2009 DAU. The 2009 DAU requires QR Network to publish on its website a comprehensive set of line diagrams of Queensland's rail network that identifies infrastructure that is owned by QR Network (red lines), a non-QR Network related party (blue lines) and other private parties (yellow lines). The 2009 DAU maintains the requirement that QR Network updates these line diagrams every six months and for material changes to be approved by the Authority.

The Authority believes these amendments are reasonable.

3.2 Decision making audit

The 2008 undertaking requires QR Network to make decisions affecting third party access seekers/holders in a manner in which those same sorts of decisions are made in relation to QR Ltd's own train operator. As such QR Network is required to comply with certain principles when making decisions which may materially affect a third party access holder's rights. The 2008 undertaking also requires QR Network to have an external auditor conduct an annual audit into its compliance with its decision making procedures.

QR Network's proposal

QR Network has sought to remove the decision making audit provisions and its associated obligations from the 2009 DAU on grounds that:

(a) the rights of access seekers are protected through their access agreements which takes precedence over any confidentiality provisions;

(b) access seekers can rely on dispute resolution procedures to protect their rights;

(c) to date no complaints have been made by a third party access seeker/holder; and

(d) QR Network is now a separate legal entity and operates at an arm's length from QR Ltd.

Stakeholders' comments

In general, all stakeholders rejected QR Network's proposal to remove decision making obligations from the 2009 DAU. ARTC, Asciano, and Xstrata recommend an annual audit of QR Network's decision making process given that QR Ltd and QR Network are still related to each other through QR Ltd's ownership. Alternatively, QRC recommended that the audit be conducted by the Authority on an 'as required' basis.

QRC is against the complete removal of the decision making provision in the undertaking simply on the grounds of QR's structural separation. It believes the regulator should have the ability to undertake audits of QR Network's decision making processes. This could be on 'as required' basis. It stated that:

> *QRC would support the removal of such processes when the regulatory regime has been demonstrated to be sufficiently transparent and accountable (QRC, sub. no. 38: 33).*

Xstrata supported QRC's submission and stated that the retention of the existing decision making audit is required for reasons of accountability (Xstrata, sub. no. 43: 24).

Asciano stated that:

> *Asciano accepts that QR Network is now a separate entity....the separation does not guarantee independence of decision making nor does it prevent QR Ltd exercising direct influence. It is therefore appropriate that UT3 continue to contain a set of decision making principles and for compliance of those principles to be audited (Ascaino, sub. no. 33: 33).*

ARTC in its submission argued that:

> *Although the re-structure would create separate independent subsidiaries of QR Ltd., these subsidiaries were still related through QR Ltd's ownership and guarantee, and that it would still seem plausible for decision making of QR Network to be influenced by the parent, with the potential for anti-competitive outcomes. It also argued that it is unlikely that the confidence of third parties to seek access to the network to compete with QR Ltd's above rail subsidiaries would be substantially enhanced as a result of the restructure (ARTC, sub. no. 32: 2).*

Authority's analysis and draft decision

The Authority believes the decision making requirements were a useful addition to the 2006 undertaking. They were introduced as a requirement of the Authority to provide access seekers/holders with greater confidence regarding QR Network's decision making procedures. These arrangements make potential breaches of the undertaking transparent and encourage QR Network to develop a "culture of compliance" with the undertaking.

This objective is supported by stakeholders who did not support the removal of these obligations from the undertaking.

In addition, even though QR Network is now a separate entity, this does not guarantee consistent or equal treatment between QR related parties and third party access seekers. QR Network continues to be related to QR Ltd through ownership and control.

The Authority therefore proposes that the 2009 DAU should retain the decision making obligations and associated audit provisions in the 2008 undertaking such that, the Authority can have some confidence that QR Network's decisions are made in accordance with its undertaking obligations.

Decision 3.1

The Authority requires QR Network to amend its 2009 draft access undertaking such that the provisions relating to QR Network's decision making procedures are retained in their entirety (clause 3.4 of 2008 undertaking), including making compliance with those procedures subject to the audit regime (clause 3.5 of the 2009 DAU).

3.3 Ring-fencing arrangements and management of confidential information

QR Network's 2008 undertaking includes a set of obligations and procedures governing the management and disclosure of an access seeker's/access holder's confidential information.

These arrangements require QR Network to have an annual audit conducted into its compliance with its ring-fencing obligations. Amongst other things, the audit report must identify whether QR Network has complied in all material aspects with its information handling obligations under the access undertaking and must provide details of any non-compliance.

The 2006 undertaking placed the information ring-fencing obligations on QR Ltd. Accordingly, actions to remedy a breach of ring-fencing obligations could be taken against QR Ltd. The 2008 undertaking carried forward these arrangements through an undertaking from the Chief Executive of QR Ltd and a confidentiality deed between QR Network and QR Ltd.

QR Network's proposal

QR Network has sought to wind-back its ring-fencing obligations with regards to disclosure and management of confidential information on the basis that it is legally separated from QR Ltd.

In its 2009 DAU QR Network has:

(a) sought to share third party access seeker's confidential information with certain QR Ltd staff including the QR Ltd Board, QR Ltd CEO, QR Ltd CFO and persons providing clerical assistance to them; and

(b) removed obligations on other QR related entities towards third parties in the event they receive confidential information relating to access requests.

QR Network has also sought to withdraw QR Ltd's Chief Executive undertaking, which included a promise to enter into a confidentiality deed addressing compliance by QR Ltd and its business groups with QR Network's ring-fencing obligations. The ring-fencing confidentiality agreement between QR Network and an access seeker have been removed from the 2009 DAU and replaced by a set of broad principles contained in the undertaking.

Stakeholders' comments

Almost all stakeholders opposed QR Network's proposal to dilute its ring-fencing obligations. Stakeholders are concerned that QR Ltd's structural separation should not be used to justify the proposed amendment.

QRC and ARTC agree that ring-fencing arrangements should continue to apply to QR Network and its related parties and that the confidentiality agreement should continue to be a part of the undertaking (ARTC, sub. no. 32: 2).

In this regard, QRC stated that:

> *QRC supports ring-fencing arrangements to apply to QR Network and its related parties. The arrangements to give effect to these, such as principles and the confidentiality deed should be included within the undertaking (QRC, sub. no. 38: 34).*

Asciano indicated that there should be an explicit commitment regarding ring-fencing obligations in the undertaking. Asciano states that:

> *It is unclear why the confidentiality arrangements do not apply to QR Network related access seekers. The omission undermines the perception of separation that QR Network is keen to generate (Asciano, sub. no. 33: 30).*

Asciano further noted that:

> *QR Network's structural change makes it a separate entity. However, the separation does not guarantee independence of decision making nor does it quarantine QR Network from the direct influence of QR Ltd's Chief Executive and board of directors...(Asciano, sub. no. 33: 30).*

Xstrata indicated there should be a binding confidentiality obligation against QR Ltd including QR Ltd CEO, Board and other assisting staff and any other third party that QR Network provides confidential information (Xstrata, sub. no. 43: 25).

Asciano indicated it does not object to removing the of confidentiality deed from the 2009 DAU.

Authority's analysis and draft decision

The Authority is of the view that the effectiveness of information ring-fencing arrangements should not be diluted on the basis of the changes that have been made to date in QR Ltd's corporate structure.

The ring-fencing arrangements in QR Network's 2008 undertaking ensure that the confidential information of an access seeker/holder is not inappropriately disclosed to third parties, in particular to related parties within QR Ltd.

As a result of QR Ltd's corporate restructure, QR Network is now the owner and operator of rail infrastructure covered by the undertaking (rather than QR Ltd). As such, the access undertaking itself no longer binds QR Ltd or other QR entities with regard to any breach of the undertaking. Therefore, without any regulatory intervention, there is nothing preventing QR's above rail business from disclosing to third parties access seekers confidential information.

It was for this reason that, when the Authority considered the 2008 undertaking, it required QR Network to provide an undertaking from QR Ltd and other QR entities in a legally binding form agreeing to abide by the terms of the confidentiality agreement or the undertaking and that a failure to do so will constitute a breach of the agreement.

The Authority does not believe that the circumstances have materially changed since it considered the 2008 undertaking in September 2008.

Accordingly, the Authority believes the information ring-fencing arrangements in the 2008 undertaking should be retained in the 2009 DAU and that it has not been provided with any convincing justification to date for ceasing those arrangements while QR Network continues to be a wholly owned and controlled subsidiary of QR Ltd. Clearly, once QR Network is no longer wholly owned and controlled by QR Ltd, an alternate set of arrangements could be contemplated provided that the confidentiality of information of an access seeker/holder is still effectively protected.

The Authority accepts that QR Network has sought to remove the prescribed form confidentiality deed, which third party access seekers/holders can require QR Network to enter into, from the undertaking in order to reduce the size of the undertaking. However, the Authority considers that removing the confidentiality deed from the undertaking creates uncertainty for access seekers which may add to the length of the negotiation period in an event of disagreement on the terms of a confidentiality deed. While the mandatory principles included in clause 3.3 (c)(i)-(iii) of the 2009 DAU go some way to addressing that difficulty, there would be aspects of the confidentiality deed over which disputes could easily arise. To significantly reduce the potential negotiation burden for both QR Network and access seekers, the Authority requires QR Network to include the confidentiality deed between itself and the access seeker in the undertaking. The Authority also requires, QR Network to amend the complaints handling provisions in clause 3.4 of the 2009 DAU so that a third party access seeker can lodge a complaint to QR Network in an event of a breach either by QR Network or QR Ltd and its related party.

Decision 3.2

The Authority requires that the wording of the 2008 undertaking requiring a confidentiality deed in a prescribed form to be incorporated within the access undertaking which a third party access seeker can require QR Network to enter into to protect confidential information disclosed by the third party access seeker be reinstated in the 2009 DAU, by:

Deleting clause 3.3(c) and replacing it with clause 3.3(c) from 2008 undertaking and re-including Schedule B of the 2008 undertaking.

Decision 3.3

Consistent with decision 2.2, the Authority requires that QR Ltd and any other QR businesses which are separate legal entities provide a deed or undertaking in legally binding form agreeing to be bound by the terms of the confidentiality agreement (to the extent it requires any actions by QR Parties other than QR Network) and the undertaking.

Decision 3.4

The Authority requires QR Network to amend clause 3.4 of the 2009 DAU (Complaint Handling) to include provisions for complaints handling in the event of a breach either by QR Network or QR Ltd or any other QR businesses of a confidentiality deed, or confidentiality provisions contained in another arrangement, to which QR Network and the third party access seeker/holder are a party.

3.4 Provision of yard control services

Marshalling yards are a part of the declared service. However, marshalling yards are often co-located with other facilities that are not a part of the declared service (e.g. freight centre or maintenance facilities). To date the management responsibility for operating the marshalling yards has been QR Network's responsibility, while the actual control of train movements around these co-located facilities has, in some case, been performed by other QR Ltd entities.

Under the provisions of QR Ltd's 2001 undertaking yard control services were only provided by QR Network at Callemondah (Gladstone), with the services being provided by other QR Ltd entities at the remainder of the yards. This was mainly because at that time yard activity levels had been insufficient to justify separate provision of yard control services for declared and non-declared parts of the co-located facilities.

However, by the time the Authority considered the 2008 undertaking QR Network had gained responsibility for providing yard control services at other marshalling yards in Queensland, namely: Acacia Ridge, Fisherman Islands, Jilalan, Coppabella, Paget (Mackay), Townsville, Pring as well as the signalled tracks at the Rockhampton and Portsmith yards.

QR Network's proposal

QR Network has sought to remove clause 3.1(f) which allows the Authority and QR Network to jointly review the appropriateness of management of yard control services at yards other than major yards by a QR related entity on behalf of QR Network during the term of the undertaking. Accordingly, where reasonable, this clause obligated QR Network to make necessary changes to the operational responsibility for yard control services.

Authority's analysis and draft decision

As discussed in chapter 2 of the draft decision, the Authority acknowledges that the responsibility for managing marshalling yards have increasingly been transferred to QR Network. However, in most locations these responsibilities are still being performed by a QR Ltd entity. Management responsibilities of yards are covered by 12 month rolling agreements with a six month notice period on termination. The Authority is concerned that the terms and conditions of these agreements could be amended in a way that allows the QR Ltd entity which controls the yard to prevent or hinder access to connected parts of the below rail network.

The Authority believes it is important that there be some flexibility with regards to the management and control of marshalling yards especially where yard activity levels have previously been insufficient to justify separate provision of yard control services for declared and non-declared parts of the co-located facilities. At the same time it is important that, QR Network retains mechanisms that require it to assume responsibility for providing yard control services where circumstances justify such a move.

Also, past experience has shown that there is always a likelihood that, in connection with major expansions of the below rail network, a relatively smaller facility (e.g. Pring) could be expected to expand significantly in line with the development of GAPE and Abbott Point terminal expansion. Accordingly, the Authority notes that retaining an enforceable review mechanism becomes important where yard control services are currently being provided by a related entity of QR Network.

Further, QR Network appears to have experienced difficulties in the past easily discerning what yards or sections of yards are owned/managed by whom. If this is the case with major yards it is likely, the Authority considers it is likely to be the case with non-major yards. Therefore, it is important to retain the 2008 undertaking provisions with regards to review of the management of yard facilities.

The Authority also requires QR Network to amend the definition of major yards to include Pring as a major yard given its likely major importance during the regulatory period given that development of GAPE and the Abbott Point terminal expansion.

Decision 3.5

The Authority requires QR Network to amend the definition of 'major yards' in part 11 of the 2009 DAU to include Pring as a major yard.

Decision 3.6

The Authority requires QR Network to reinstate clause 3.1(f) as follows:

During the term, QR Network and the QCA may agree to jointly review the appropriateness of Yard Control services at yards other than major Yards continuing to be performed by a QR Related Operators. QR Network will, after first obtaining the approval of the QCA, take whatever reasonable steps are required to implement the findings of any such review.

3.5 Costing manual

QR Ltd's 2006 undertaking required QR Ltd to produce regulatory financial statements each year, using the methodology and format set out in a costing manual approved by the Authority. The purpose of the costing manual is to establish the methodology by which QR's below-rail

costs will be separated from its other costs and published in financial statements separately for central Queensland coal region and the rest of the network. QR Ltd's costing manual was first approved in 2002 and, upon its expiry; a replacement costing manual was approved in July 2006 for the period 2006-07 to 2008-09.

At the time of the approval of the 2008 DAU it was unclear as to whether QR Network would publish its own financial statement or QR Ltd will publish consolidated statements. Therefore, the 2008 draft decision placed an obligation of QR Network to prepare financial statements for regulatory purposes.

QR Network has not proposed to amend the requirements relating to the preparation of financial statement in accordance with an approved costing manual.

Stakeholders' comments

QRC believes that there is no apparent link between the efficient costs and QR Network's reported allocations using the costing manual. Therefore, QRC was not sure about the benefits in retaining the costing manual obligations in the undertaking (QRC, sub. no. 38:38).

Asciano is also of the view that costing manual serves no useful purpose and that it should be abandoned (Asciano, sub. no. 33:62).

Authority's analysis and draft decision

Given QR's restructure, the Authority believes that the costing manual should be amended to reflect the separation of QR Network for QR Ltd in September 2008. In particular, it is not apparent why overheads and service costs should be allocated to QR Network rather than being accrued on the basis of an arm's length supply contract. The Authority is concerned that despite structural separation, QR Network's operating costs in the CQCR, for the large part continues to rely on costing manual allocation mechanisms.

The Authority intends to review the content of QR Network's costing manual following the commencement of the 2009 DAU to ensure that it appropriately reflects QR Network's new corporate structure. However, a process for such a review exists under the QCA Act, so no amendment to the 2009 DAU is necessary in order to allow such a review to occur.

The Authority therefore, considers that the costing manual should be reviewed once the 2009 DAU is approved.

The Authority also believes having audited statements relating to the financial position of QR Network (and therefore, the below rail network) . In the past, these statements have focussed on preparing a statement of assets and a statement of earnings before interest and tax. QR Network was not required to provide a balance sheet that set out the equity and debt funding. This was viewed as reasonable because QR Network was part of a larger entity and the funding arrangements were established for the entirety of QR Ltd.

However, this no longer applies as QR Network is now a separate subsidiary. Reflecting this, the Authority believes it is reasonable for QR Network's regulatory financial statements to be extended to also report on its debt and equity funding arrangements. Therefore, the Authority requires QR Network to amend clause 3.2.1 of the 2009 DAU.

Decision 3.7

The Authority requires QR Network to amend clause 3.2.1 of the 2009 DAU as follows:

(a) **Unless otherwise approved by the QCA, QR Network will develop, on an annual basis:**

> **Audited general purpose financial statements for QR Network in accordance with relevant legislation and applicable Australian accounting standards;**
>
> **("Financial Statements") which include a supplementary set of financial statements separately identifying the central Queensland Coal region from the rest of the network and are otherwise developed in accordance with the methodology and format set out in the Costing Manual.**

(b) The Financial Statements will be certified by the QR Network Executive General manager as being in accordance with the Costing Manual and, for Financial Statements prepared under clause 3.2.1(a)(i), will be audited in accordance with clause 3.2.2.

Decision 3.8

Accordingly, the Authority also requires QR Network to amend reference in the 2009 DAU from clause 3.2.1(a)(i) to clause 3.2.1.

Decision 3.9

The Authority considers it appropriate to review the finalisation of Costing Manual until after the completion of the Authority's assessment of the 2009 DAU.

4. NEGOTIATION FRAMEWORK

Part 4 of QR Network's 2009 DAU outlines the proposed negotiation framework, including the process and conduct of negotiations and timeframes for actions. Schedules C and D of the 2009 DAU outline the information access seekers and QR Network may be required to provide as part of the negotiation process.

The Authority believes that a number of operational aspects of the negotiation framework could be improved through minor amendments. Therefore, the Authority has proposed these amendments to improve the clarity of this part of the undertaking.

However, the Authority has also proposed that the 2009 DAU include a broad set of principles for capacity allocation for major projects. The Authority agrees that the capacity allocation framework for a major project must be addressed appropriately given that these projects may require underwriting from access seekers and customers.

Substantial amendments relate to the capacity allocation framework for major projects and the definition of major project.

4.1 Introduction

Part 4 of the 2008 undertaking sets out a process for negotiating access agreements that includes the information that access seekers must give to QR Network, timelines in which QR Network must respond to access seekers and matters (e.g. an interface risk management plan) that must be resolved prior to concluding an access agreement.

The 2008 undertaking also includes a queuing mechanism that sets out the rules on how access applications will be managed where there is insufficient network capacity to meet all requests for access. In general, the queuing arrangements are on a first-come first-served basis, but there are provisions for QR Network to re-order the queue (e.g. where an access seeker lower in the queue will make a higher contribution to common costs than an access seeker higher in the queue).

QR Network has sought to retain these arrangements in the 2009 DAU, but has also sought to introduce new arrangements for 'major projects' where significant new investments are involved and where it needs to gain some prior knowledge of the likely future demand for capacity in order to ensure that the expansion is appropriately sized. This matter is discussed in section 4.2.

In addition to this matter, stakeholders have also raised concerns in relation to the transparency of the queuing arrangements (section 4.4), QR Network's rights to reject an access application (section 4.5), a number of matter associated with the issuing of an indicative access proposal (section 4.6) and the replacement of the capacity resumption register with the capacity notification register (section 4.9).

4.2 Framework for major projects

QR Network's proposal

QR Network has argued that aspects of the 2008 undertaking do not readily address the issues raised by the development of major new projects. As a result, the 2009 DAU provides for:

(a) QR Network to request access conditions (e.g. capital underwriting) to address the financial risks associated with major new investment projects (section 6.5); and
(b) QR Network to depart from the standard queuing rules and to allocate capacity on a case by case basis for major projects.

QR Network argued that the current queuing arrangements were developed to manage temporary mismatches in capacity associated with the brownfields development of the existing network. However, it argued that this may not be the case with major new projects where a mismatch between port and rail capacity may persist indefinitely. As a result, QR Network argued it was appropriate to treat major projects differently as standard capacity management arrangements in part 7 of the 2008 DAU cannot be relied on to address capacity allocation issues for greenfield corridors (QR Network, sub. no. 1: 62).

Definition of major projects

QR Network has proposed to define a major project as:

> *A project which:*
>
> *(i) increases the value of assets in the regulatory asset base comprising an individual Coal System by at least the lesser of thirty percentage points (30%) or $300 million; or*
>
> *(ii) will give rise to or result in the creation of new rail infrastructure for a new rail corridor which, at the time immediately prior to the commencement of that program of capital expenditure, will not be comprised in an individual coal system (but including any ancillary infrastructure enhancement projects in relation to an existing individual coal system undertaken in connection with the creation of a new rail infrastructure for that new rail corridor) (QR Network, sub. 1: 62).*

According to QR Network, the definition of major project would include large investments such as the Goonyella-Abbot Point project and to the rail infrastructure required to serve the proposed Wiggins Island Coal Terminal at Gladstone (QR Network, sub. no. 1: 63).

Capacity allocation process

QR Network has proposed a new process for developing major projects that provides for QR Network to:

(a) reject a request for access, provided a written notice is provided to an access seeker stating the reasons for rejection while confirming a process to consider a major project;
(b) seek funding for costs associated with any feasibility study;

(c) record access seekers' details and contact details of any customer provided;

(d) consider the feasibility of the major project, including capacity allocation process, and advise access holders and customers of the outcome of that consideration; and

(e) impose access conditions for 'major projects' as per clause 6.5.2 of the 2009 DAU.

While the 2009 DAU does not include criteria for allocating capacity for major projects, QR Network has subsequently indicated that it was willing to consider a more detailed set of criteria to assess the allocation of capacity for major projects. These additional criteria included the financial capability of the access seeker to conform to access conditions, the ability of access seeker to utilise the capacity sought and the likelihood an access seeker would secure rights to an unloading facility.

QR Network has proposed that access seekers could dispute the capacity allocation process by taking up the matter with the Authority subject to a 40% materiality threshold (i.e. 40% of the total number of access holders and customers, are not satisfied with the proposed process). QR Network argued that this threshold is to prevent unreasonable intervention by minor stakeholders.

Stakeholders' comments

Stakeholders agree in principle with QR Network's proposed approach for allocating capacity where end users have made capital contributions. However, stakeholders were concerned about the lack of a proposed framework.

ARTC considered it appropriate for QR Network to develop a special set of rules for allocating capacity created by a major project. However, ARTC recommended that there should be an appropriate link between the allocation of new capacity created with the willingness to underwrite the cost of major project and not just the feasibility study as currently proposed by QR Network (ARTC, sub. no.32:5).

QRC accepted that major projects do raise special issues regarding capacity allocation, but was concerned that:

> *No rules or principles are provided to indicate the matters which the QCA should take into account in resolving a dispute. For example, while we would expect matters such as prior contributions to the costs of feasibility studies, port access, or dates of initial access applications could be relevant factors, this is not specified (QRC, sub. no. 38: 22).*

QRC is also concerned with the level of discretion the proposed amendment provided QR Network in that:

> *... while the extent of discretion available to QR Network when clause 4.8 applies is not clear, it appears that the clause would override all clauses 4.1 to 4.7. These clauses contain a range of important provisions, not all of which will need to be reassessed to accommodate an alternative approach to capacity allocation (QRC, sub. no. 38: 22).*

QRC has raised concerns with the proposed definition of major project as a series of "routine' duplications within a system could easily meet the criteria of the proposed definition.

> *For example, the duplications proposed in the Goonyella system in the current Master Plan, when combined with the Jilalan project, have a cost in excess of $300 million and are a 'program of related capital expenditure', but it is not clear why special access conditions would need to be imposed for such projects (QRC, sub. no. 38: 40).*

Xstrata indicated it was keen to see a coordinated approach to capacity allocation for major projects so that supply chain throughput is maximised. Xstrata considered that major projects should be considered within the parameters of the master plan and guidance should be obtained from the master planner prior to commencing the expansion (Xstrata, sub. no. 43: 20).

With regard to the definition of major projects, Asciano commented that:

> *It is not clear why $300m should be chosen as a threshold for triggering the major project process. The 30% trigger appears unhelpful given the diversity of values of the different systems. Asciano believes that it is likely that most new capacity would fall into the major project category and therefore effectively circumvent the UT3 capacity allocation provisions for a completely unknown process (Asciano, sub. no.33: 20).*

Despite this, Asciano accepted that major projects require a separate framework for allocating capacity but is concerned that the proposed amendment to clause 4.8 would allow the allocation of capacity and the negotiation of access to be removed from provisions of the undertaking. Further, Asciano believed that the dispute resolution process proposed by QR Network is ineffective, impractical and unworkable as:

(a) there may be strong pressure on access seekers to agree to the terms and conditions of QR Network in order to gain timely access to capacity created;

(b) the dispute may have to be raised collectively in order to satisfy the 40% threshold rule proposed by QR Network. This can be cumbersome and time consuming when compared to bi-lateral disputes; and

(c) it may be difficult to identify other dissatisfied parties in the process such that a collective dispute resolution application can be lodged.

Authority's analysis and draft decision

The Authority accepts QR Network's objectives for developing a more systematic process for managing access applications for capacity for major projects. The framework in the 2008 undertaking suffers from the deficiency that QR Network is required to manage individual requests for access, whereas the alternate process would allow QR Network to:

(a) aggregate a number of access requests to get a better assessment of both the required size and timing of the expansion to meet the requirements of access seekers; and

(b) allocate capacity to those parties with the greatest likelihood of being able to use that capacity (e.g. mines with a port contract).

However, as identified by stakeholders, it is also apparent that QR Network's proposal is not sufficiently detailed to be approved in its submitted form.

Definition of major projects

The Authority considers that the proposed threshold for what constitutes a major project is too low and lacks clarity. As Asciano and the QRC indicated, based on QR Network's proposed definition, there is a possibility that most new capacity enhancements could fall under the major project category thereby circumventing the more usual capacity allocation process established in the undertaking.

Stakeholders were also concerned that QR Network could aggregate a number of smaller projects into a larger project that met the size threshold. However, QR Network has indicated to the Authority that this is not its intention. Also, QR Network's proposal is unclear as its submission in support of the proposal is couched in terms of greenfield projects (e.g., Goonyella to Abbot Point and Wiggins Island Coal Terminal Project); yet the 2009 DAU drafting is unclear on whether it also relates to upgrades of the existing corridors.

Therefore, to clarify these matters, the Authority proposes that the definition of major projects be tightened in that the definition should:

(a) explicitly state that a major project will create additional capacity;

(b) relate to a new railway corridor (i.e. not the existing CQCR mainline);

(c) clearly relate to a single major infrastructure enhancement relating to the expansion of an existing, or a greenfield development of a new, loading or unloading facility; and

(d) relate to projects with an expected capital expenditure in excess of $300 million.

These clarifications seek to address stakeholders' concerns that a major projects arrangement will encompass an aggregation of a number of smaller projects that may form a part of an incremental expansion of a system. (Decision 4.2 outlines the amended definition of major projects).

Capacity allocation process

The Authority believes that QR Network's proposed approach to allocating capacity for major projects is too open-ended and provides no certainty on how the capacity allocation process will work. Indeed, it is not evident that the criteria for allocating capacity for any particular major expansion will be known prior to any request for expressions of interest. Moreover, a dispute mechanism at the end of a process will ultimately be a dispute between those access seekers that were unable, and those that were able, to secure capacity. Such a process places no discipline on QR Network to operate a capacity allocation process in a transparent manner based on the equitable application of objective criteria.

In contrast, the Authority believes that, if it is possible that the capacity generated by a major project is insufficient to meet demand, then access seekers should know upfront what the allocation process will be so they have some certainty on what they have to do for them to be provided with the best opportunity to successfully acquire the new capacity.

The Authority therefore proposes that the 2009 DAU be amended to include more detailed guidelines on capacity allocation for major projects that provide scope for QR Network to alter the allocation mechanism on a case by case basis but with the prior approval of the Authority. Any subsequent dispute would therefore focus on whether QR Network had applied the approved guidelines, and not on whether an access seeker was simply dissatisfied with the outcome of any allocation process.

In this regard, the Authority proposes to amend clause 4.8(a) to (c) with clause 4.8.1 (a)-(c) and replace clause 4.8 (d) to (i) with clause 4.8.2 -4.8.5 (see appendix 4 for detailed drafting). The proposed framework aims to extend the current practice in the 2009 DAU (clause 4.8) rather than establishing a completely new framework.

In particular, it is proposed that, following the completion of a preliminary feasibility and commercial viability study, QR Network should call for an expression of interest from access seekers wanting capacity in the proposed project. The call for an expression of interest should:

(a) contain information required for an access seeker to assess the proposed major project together with other viable alternative options. The information provided to access seekers would be similar to that provided by QR Network for customer voting purposes under Schedule A of the 2009 DAU. This would include information regarding the proposed feasibility studies that QR Network intends to undertake, proposed location, scope, cost and the associated timelines for constructing the project as well as an estimate of the additional capacity QR Network is seeking to create and the rolling stock configurations needed to utilise the capacity.

(b) contain information on the criteria for allocating capacity between access seekers and the pre-approval process for the scope of the capital expenditure on major projects. The Authority considers that the pre-approval process should be similar to that detailed in clause 3.1 of Schedule A of the 2009 DAU.

(c) be published, along with the aforementioned information, on QR Network's website and remain open for a specified period of time. QR Network should also directly send the necessary information to the following:

    (i) access seekers and customers identified in the capacity notification register;

    (ii) any access seekers who responded to the calls for expression of interest for a previous major project which did not proceed; and

(iii) access seekers whose request was previously rejected as QR Network was unable to assess their applications without having to invest in a major infrastructure enhancement.

Depending on the resultant responses, QR Network may then conduct further investigations to determine the feasibility of the major project.

QR Network's decision to go ahead or abandon the project will be published on its website.

The queuing arrangements will be irrelevant where QR Network decides to proceed with the project and it generates sufficient capacity to meet the requirements of all access seekers. If, however, the major project creates insufficient capacity to meet the requirements of all access seekers, QR Network will allocate capacity between access seekers based on a set of 'prescribed factors', including:

(a) the extent to which an access seeker has complied with the access conditions requirements of QR Network (e.g. upfront capital contributions from users to offset QR Network's asset stranding risk);

(b) the net present value of each access seeker's request to QR Network;

(c) the length of the contract sought by each access seeker;

(d) the amount of capacity sought by each access seeker; and

(e) evidence of an access seeker's ability to utilise the capacity sought (e.g. a port contract).

This list of 'prescribed factors' can be augmented on a case by case basis with the Authority's prior written approval. In making a decision, the Authority will seek submissions from the stakeholders.

QR Network will be required to notify those access seekers whose access request were not satisfied as a result of the capacity allocation process for a major project, and to state the reasons for its decision.

Dispute resolution process

If an access seeker wishes to dispute QR Network's decision, the matter can be referred to the Authority. The Authority will take into account the 'prescribed factors' and the allocation process when arbitrating any dispute referred to it. However, the Authority does not support QR Network's 40% materiality threshold for the lodgement of a dispute application. The Authority considers that every access seeker responding to QR Network's expression of interest should have the right to dispute why it was unable to obtain the capacity it requested.

Decision 4.1

The Authority does not accept QR Network's proposed allocation process for major projects. In this regard, the Authority requires QR Network to amend clause 4.8 in line with the detailed drafting provided in appendix 4.

Decision 4.2

The Authority also requires QR Network to amend the definition of Major Projects as follows :

Major Project means a program of related capital expenditure that when complete:

(i) is reasonably expected to increase the value of assets in the regulatory asset base by at least $300 million;

(ii) will give rise to or result in additional capacity by the creation of new rail infrastructure for a New Corridor which, at the time immediately prior to commencement of that program of capital expenditure, will not be comprised in an individual coal system, ~~(but including any ancillary infrastructure enhancements projects in relation to an existing individual coal system undertaken in connection with the creation of new rail infrastructure for that new rail corridor)~~; and

(i) where demand for that additional capacity was primarily generated by a single Major External Development.

A Major Project will also include any ancillary Infrastructure Enhancement projects in relation to an existing Individual Coal System undertaken in connection with the creation of new Rail Infrastructure for a New Rail Corridor.

Major External Development means the announcement of:

(i) an expansion of an existing loading or unloading facility; or

(ii) a Greenfield development of a new loading or unloading facility by an entity other than QR Network or a QR party, which increases, or facilitates the increase of, the demand for Access for coal carrying train services.

Where a New Corridor is a non existing CQCR mainline.

Decision 4.3

The Authority does not accept QR Network's proposed 40% materiality threshold for dispute resolution process. The Authority requires QR Network to delete clause 4.8 (g) as follows:

~~If more than forty percentage (40%) of the interested parties, by number, are not satisfied with the proposed capacity allocation process, then those interested parties, within fifteen (15) business days after being given a notice by QR Network in accordance with clause 4.8 (f), such access seekers may collectively refer the matter to the QCA for determination as a dispute in accordance with clause 10.1.4.~~

The Authority requires QR Network to amend clause 4.8 in line with the drafting provided in appendix 4.

4.3 QR Network's failure to comply with the queuing mechanism

Where there is insufficient network capacity to meet all of the requirements of existing access seekers, the 2008 undertaking requires QR Network to create a queue of access seekers. The 2008 undertaking also requires QR Network to provide access seekers with information regarding other mutually exclusive applicants and their position in the queue.

QR Network's proposal

QR Network has sought to amend clause 4.3(c)(iv) of the 2009 DAU to include an additional provision which limits QR Network's liability in an event of its non-compliance with the queuing mechanism during the negotiation stage.

The 2009 DAU proposes that QR Network will not be held to be in default of the undertaking, and any access agreement will not be invalidated, if QR Network has acted in good faith, even though it may have;

(a) failed to advise an access seeker of the presence of another mutually exclusive application; and

(b) executed an access agreement so that it is no longer able to provide access to an access seeker who should have had priority in a queue managed in accordance with the undertaking.

QR Network's submission did not indicate why this amendment was appropriate. Stakeholders also did not raise this issue in their submissions.

Authority's analysis and draft decision

The queuing mechanism was included into the 2006 undertaking to provide third party access seekers with some protections to ensure that QR Network did not give preference to related parties when negotiating and executing access agreements in circumstances where capacity was constrained.

The proposed amendment would significantly weaken the effectiveness of the queuing mechanism by limiting the enforceability of the undertaking against QR Network.

Section 158 A of the QCA Act provides for a person or the Authority to apply to the court to enforce the requirements of an approved access undertaking where a person's rights have been adversely affected. In the event of a breach of an undertaking, a court can make a number of orders including compensation for anyone who has suffered a loss or damage because of the breach.

The Authority considers that from the perspective of an access seeker the proposed amendment limits the scope of the QCA Act's enforcement regime especially in circumstances where QR Network acted in good faith albeit negligently leaving adversely affected parties (end users or access seekers) with limited avenues for seeking redress.

The Authority considers that an enforcement regime should remain available as a way of injunction preventing entry into an access agreement which did not comply with the queuing mechanism and where the affected party found out about the impending execution before it occurred.

On this basis, the Authority requires that the additional provisions seeking to limit the enforcement regime be deleted from the 2009 DAU.

Decision 4.4

The Authority requires QR Network to amend clause 4.3(c)(iv) such that the 2008 access undertaking provisions are retained.

The indicative access proposal will set out:

> **(iv) advice in respect of the existence of other access seekers who have submitted an access application in respect of access which, if it were to be provided, would limit the ability of QR Network to provide access in accordance with the indicative access proposal and whether a queue has been formed ~~(provided that a failure to do so is neither a default under this undertaking nor does it invalidate or prejudice any access agreement executed by QR Network provided that QR network has acted in good faith~~;**

4.4 Transparency during negotiation

QR Network's proposal

QR Network has sought to amend Schedule C of the 2009 DAU to allow access seekers to include in access applications details of the customer where access has been applied for by a train operator on behalf of the customer (e.g. a mining company).

In the event that the access seeker does include the customer's details in the access application, QR Network has proposed that it would provide to the customer copies of information sent out to the access seeker. This obligation would not include information contained in the Indicative Access Proposal (IAP) as QR Network believes that an IAP contains commercial in confidence information regarding a train operator's operation and therefore should not be provided to customers. QR Network maintains that sharing of such commercially sensitive information should remain a matter between the access seeker and its customer (QR Network, sub. no. 1:53).

Stakeholders' comments

Stakeholders' comments on the transparency of the negotiation process were mixed.

ARTC accepted that the negotiation framework should be a transparent process but did not comment further on this matter (ARTC, sub. no. 32:5).

Both QR Freight and Asciano generally supported QR Network's proposal to allow a customer's details to be provided to QR Network but believed that this right should not be open ended. In particular:

(a) QR Freight indicated that the undertaking should prevent the disclosure of sensitive information without the consent of the party concerned (QR Freight, sub. no. 37:16); and

(b) Asciano objected to the sharing of information directly between QR Network and end customer where there is no direct contractual relationship (Asciano, sub. no. 33:11).

In contrast, Xstrata and QRC were concerned about the lack of transparency with the queuing process and argued that the amendments proposed by QR Network do not resolve this issue. In particular, the QRC and Xstrata argued that in order to assist in a customer's planning for a mine development, QR Network should be obliged to provide customers with information on

the number of access seekers that are higher up in the queue and what expansions will be needed to meet their access requirements.

Authority's analysis and draft decision

The Authority notes that the negotiation process, in particular where a queue is formed, should be a transparent process as far as is practicable. The proposed amendments in the 2009 DAU will create further options for increasing the transparency of the queuing process.

The Authority does not believe that the proposed amendments will put at risk the confidentiality of an access seeker's information. In particular, QR Network has not proposed that sensitive information in an IAP be passed on to a customer. Moreover, Part 3 of the undertaking provides over-riding obligations on QR Network to protect an access seeker's confidential information.

Also, the Authority notes Asciano's concern that it may not be standard practice for QR Network to pass information on to a non-contracting party. However, the 2009 DAU should provide sufficient protection to an access seeker in this regard as they have the option to not include the customer's details in their access application and, in so doing, not initiating the obligation for QR Network to pass information onto that customer.

Similarly, if a customer wants this information then they should ensure that they are contracting with a train operator that is willing to pass the relevant information on to them. The Authority does not believe that QR Network should be automatically required to pass on details of the queuing arrangement to a customer that is not an access seeker. While the Authority accepts that such an obligation will improve the transparency of the queuing mechanism, this is a matter that is best dealt with between the customer and their train operator and should not be an automatic obligation to be imposed onto QR Network.

4.5 Rejection of access application

QR Network's proposal

The 2008 undertaking provides that where an access application does not contain all of the required information (Schedule C of the undertaking) but does provide a reasonable description of the proposed train service, then QR Network is required to prepare an IAP conditional upon assumptions relating to the detailed information not provided. In the event that QR Network does not believe that the application provided a reasonable description of the proposed train service then QR Network is deemed not to have received an access application.

QR Network has proposed to amend this arrangement in the 2009 DAU by providing for it to formally reject an application where it is not reasonably satisfied that the application provides a reasonable description of the proposed train service.

Stakeholders' comments

QR Freight supports QR Network's proposal to reject an access application on insufficient information but wants more protections in place so an access seeker is not completely at QR Network's discretion (QR Freight, sub. no. 37:15). QR Freight is particularly concerned in instances where the proposed train service does not fit within the parameters of a common train service, such as where a customer requires high level feasibility information prior to commencing regular services (e.g. locomotive testing).

Authority's analysis and draft decision

Authority notes QR Freight's comments and agrees that QR Network should not use one standard application form for different type of train services. However, the Authority believes it

would be inappropriate for the undertaking to oblige QR Network to develop access application forms for all conceivable types of train services.

Rather, the 2009 DAU already requires QR Network to be reasonable in its assessments of access applications, which is particularly relevant where the access application is unable to meet the requirements of Schedule C but nevertheless provides a reasonable description of the proposed train service. In general, this requirement should be sufficient to address the concerns raised by QR Freight; that is, QR Network would be in breach of its undertaking requirements if it unilaterally rejected an application because the description of a proposed train service did not easily fit within the requirements of some standard application form.

However, the Authority accepts that the undertaking could provide further guidance to the factors that QR Network should take into account when rejecting an access application. In this regard, the Authority requires QR Network to amend clause 4.2(c) such that it includes an obligation to have regard to the anticipated nature, volume and duration of the application when deciding whether to accept or reject an access application.

Decision 4.5

The Authority requires QR Network to amend clause 4.2(c) as follows:

(c) If QR Network is reasonably satisfied that the request for Access:

(i) satisfies all of the Application requirements; or

(ii) does not satisfy all of the Application requirements but that the access seeker's request for access provides a reasonable description of the proposed train service, having regard to the anticipated nature, volume and duration of the proposed train service,

then QR Network will give the relevant Access Seeker a written notice.

4.6 Indicative access proposal and time frames

To facilitate the timely conclusion of access negotiations, the 2008 undertaking includes time frames in which QR Network must respond to an access application.

QR Network's proposal

The 2009 DAU proposes to extend the time frames for QR Network to acknowledge an access application and to issue an IAP.

QR Network has sought to extend the period to acknowledge an access application from 5 to 10 business days. Within these 10 business days QR Network will also assess if there is sufficient information available to allow an IAP to be prepared. In case of insufficient information, QR Network will identify the nature of the information required.

QR Network has proposed that it will continue to issue an IAP within 30 days from the acknowledgement notice. However, QR Network may extend the time frame by another 30 days if justified by the "complexity of the access application or other extenuating circumstances". Further, the extension of the timeframe would be subject to the access seekers' written approval.

QR Network believes that this proposed amendment will reduce the number of breaches for an IAP from 20% to 5%.

Stakeholders' comments

Stakeholders provided a mixed response to QR Network's proposal to extend the dead line for acknowledging an access application and issuing an IAP.

QRC generally supported QR Network's proposed extension of time frames for acknowledging an access application and issuing an IAP but argued that these extensions should only apply when additional information is required to prepare an IAP (QRC, sub. no. 38:19).

Asciano on the other hand opposed any extensions on the grounds that QR Network routinely fails to meet its existing deadlines. With regards to the proposal for a written approval by the access seeker for the issuance of the IAP Asciano stated that:

> *this is somewhat unhelpful provision giving the access seeker a Hobson's choice. The alternatives are withdrawal of the application or raising of a dispute. Neither of these alternatives is palatable (Asciano, sub. no. 33:16).*

QR Freight was concerned about certainty for rail operators with regards to timely management of access requests if QR Network is unable to meets it deadline. In this regard QR Freight stated that it is unclear:

> *... what happens if an access seeker objects and QR Network does not or is unable to meet the initial 30 day deadline. Current and proposed arrangements in the 2009 DAU do not provide any incentive for QR Network to deal with an access application in a timely manner (QR Freight, sub. no. 37:14).*

Xstrata suggested alternate drafting to QR Network's proposed amendment to the extension of timeframes for acknowledging of an access application, but only to the extent that:

> *additional information or clarification is required for QR Network to be satisfied that the request for access provides a reasonable description of the proposed train service for the purpose of preparing an IAP (Xstrata appendix B, sub. no. 43:23).*

Authority's analysis and draft decision

It is reasonable to allow QR Network to extend the timeframes for acknowledging of an access application as QR Network is proposing to not just acknowledge the receipt of access application but also to confirm whether or not there is sufficient information.

However, the Authority has concerns that QR Network should give notice if it needs to extend the due date for an IAP. The amendment as currently drafted allows QR Network to seek an extension for issuing an IAP right up to the last day the IAP is due. The Authority believes this gives too much discretion to QR Network without any certainty for access seekers and end customers.

Prior to the release of the draft decision, QR Network indicated it was prepared to amend the timelines for issuing an IAP in its 2009 DAU as follows:

(a) QR Network can extend the timeframe for issuing the IAP up to the first 20 days of receiving the access application by another 30 days; and

(b) any extension for issuing an IAP beyond the first 20 days of the receipt of an access application would require the approval of the access seeker.

The Authority considers the revised proposal by QR Network is reasonable and, to give effect to this proposal, requires QR Network to accordingly amend clause 4.3 (b) of the 2009 DAU.

Decision 4.6

The Authority accepts QR Network's proposed amendment for the extension of timeframes for the issuing an IAP subject to the extension being made within the first 20 days of receiving an access application by another 30 days. If the extension is sought after the initial 20 day period or if the timeframe has been extended before QR Network will require a written approval from the access seeker. The Authority requires QR Network to amend clause 4.3 (b)(i) as follows:

(b) QR Network:

(i) ~~prior to the end of the thirty (30) day period under clause 4.3(a), may by written notice to the access seeker, extend that period by not more than a further thirty (30) days, if QR Network~~ <u>if it</u> considers that, due to the complexity of the access application or other extenuating circumstances, it is not reasonable to provide an indicative access proposal within the ~~thirty(30) day~~ <u>period under clause 4.3 (a), may by written notice to the access seeker, within twenty (20) days after the date on which QR Network gives an Acknowledgement Notice to the access seeker extend the</u> period under clause 4.3 (a) <u>by not more than a further thirty (30) days</u>; and

.....

4.7 Allocation of capacity rights at IAP stage (capacity modelling assumptions)

QR Network's proposal

The 2008 undertaking and the 2009 DAU both provide a framework where capacity rights are not awarded to an access seeker until access negotiations are completed and an access agreement is executed.

This arrangement is augmented by a queuing mechanism that applies where there is insufficient network capacity to meet all existing requests for capacity. The queuing mechanism provides that QR Network can only execute agreements with access seekers at the head of the queue. The queue is formed on a first-come first-served basis effective on the date at which QR Network receives the access application. QR Network can reorder the queue, but only in limited circumstances.

Stakeholders' comments

QR Freight has argued that these arrangements should be altered and recommended that QR Network should provide rail operators with greater certainty by assigning them established rights to capacity at the IAP stage.

QR Freight also argued that, as part of the IAP, QR Network should provide access seekers with the capacity modelling assumptions relating to the capacity enhancements required to meet their access requests.

Authority's analysis and draft decision

The Authority does not agree with QR Freight's suggestion that access rights be recognised at the IAP stage. The Authority is of the view that the IAP is still at the relatively early stage of the negotiation process and that it would be difficult for QR Network to give access seekers any significant degree of security of access rights at that time. The Authority, therefore, believes that it would be unreasonable to expect that the IAP should be binding on both parties. This is not to say that access seekers should not get some degree of surety of access rights from the earliest stages in the negotiation process – but the Authority believes that the queuing mechanism provides this surety.

In discussing the 2009 DAU with stakeholders, it is apparent that to assist their planning processes, they are seeking additional details to be included in the IAP, including rolling stock details, section run times and load/unload rates. QR Freight believes that an indication of the modelling assumptions would give them a better understanding of what happens between the times an access application is made and when the IAP is actually processed. The inclusion of these modelling assumptions is to increase transparency with regards to capacity that is likely to become available due to infrastructure enhancements.

The Authority accepts that this additional detail would be helpful to access seekers and does not believe it would be an onerous regulatory obligation on QR Network as the information being sought will be part of any assessment of capacity requirements to satisfy an access seeker's request.

Accordingly, the Authority agrees with stakeholders that QR Network should amend the 2009 DAU to require it to disclose some of its capacity modelling assumptions at the IAP stage.

Decision 4.7

The Authority requires QR Network to amend clause 4.3(c) as follows:

(c) the indicative access proposal will set out:

...

(iii) an initial capacity assessment (which is subject to confirmation by a capacity analysis prepared in accordance with clause 4.5.2(a)(vi)) <u>together with QR Network's assumptions regarding rolling stock, section run times and loading and unloading times used in preparing that assessment</u>, except to the extent that either the System Rules indicate or QR Network considers that such an assessment is not required;

4.8 Negotiation ceasing on reduction of available capacity

QR Network's proposal

The 2009 DAU proposes to amend clause 4.5.1(e)(v) and (f) to allow QR Network to immediately cease negotiations in circumstances where a reduction in available capacity adversely affects QR Network's ability to offer access to access seekers under the terms of the IAP. In other words, the proposed drafting suggests that QR Network would cease negotiations with that access seeker.

QR Network's submission did not explain why this amendment was appropriate. Stakeholders also did not raise this issue in their submissions.

Authority's analysis and draft decision

The Authority is concerned that, in circumstances where there is insufficient capacity to meet an access seeker's request, QR Network could simply terminate negotiations with that access seeker, rather than being required to offer the access seeker which is first in the queue the remaining available capacity. As a consequence of the proposed amendment the adversely affected access seeker would lose its place in the queue even if some capacity remained available which they would be willing to contract for. It is then theoretically possible that others behind them in the queue seeking less access rights could negotiate an access agreement with QR Network for those lesser rights. This effectively means that the first position holder is not given an opportunity to gain those rights by holding its position in the queue while a revised IAP is prepared by QR Network for the reduced entitlements.

Clause 7.3.5 of QR Network's proposed 2009 DAU determines the order of the queue where QR Network has received applications for mutually exclusive access rights. One of the circumstances in which a queue can be reordered is where the negotiation period ceases – in which case an access seeker is removed from the queue. The Authority believes that approving the proposed amendment would give undue discretion to QR Network in reordering the queue.

The Authority proposes that the negotiation period continues in respect of that capacity included within the revised indicative access proposal so that they are not removed from the queue (especially if the access seeker indicates a willingness to proceed on the basis of the revised indicative access proposal).

Further, clause 7.3.5 of the proposed 2009 DAU does not allow for the queue to be reordered when they are included again under clause 4.5.1(f), which leaves an access seeker open to significant uncertainty about what position they rejoin in.

Given the consequence of immediate cessation of negotiations and the possibility of restarting it QR Network should also, in the interests of the stakeholders, clarify that 'adversely affected' means QR Network is unable to provide access in accordance with the IAP due to the reduction in available capacity.

Accordingly, the Authority requires QR Network to amend clause 4.5.1(e)(v) , clause 4.5.1 (f) and clause 4.7(a) of its 2009 DAU so that an access seeker first in the queue has the option of accepting a revised IAP while maintaining its position in the queue in case QR Network is unable to offer that access seeker its entire initial capacity entitlement.

Decision 4.8

The Authority requires QR Network to amend clause 4.5.1 (e) and 4.7(a) as follows:

4.5.1 Negotiation Period

(e) An Access Seeker's negotiation period ceases on:

....

(v) the Available Capacity being reduced (for example, due to another Access Seeker finalising an Access Agreement), such that QR Network~~'s ability to~~ is no longer able to offer Access to the Access Seeker under the terms of the Indicative Access Proposal, ~~is adversely affected~~, subject to only ceasing in respect of any Capacity being sought by the Access Seeker that is not included in any revised Indicative Access Proposal which the affected Access Seeker has agreed to continue to negotiate on the basis of pursuant to clause 4.5.1 (f).

~~(f) If a negotiation period ceases where clause 4.5.1 (e)(v) applies, QR Network will, if requested by the affected access seeker, review the indicative access proposal and prepare a revised indicative access proposal in accordance with clause 4.3, and the negotiation process outlined in this part 4 will recommence form that point.~~

(f) if an Access Seeker's Negotiation Period would otherwise cease pursuant to clause 4.5.1 (e)(v), and part of the Access being sought by the Access Seeker remains as Available Capacity, QR Network will give notice of that event and the remaining Available Capacity to the affected Access Seeker and:

(vi) if requested by the affected Access Seeker within 2 weeks of being given such notice, prepare a revised indicative Access Proposal in accordance with clause 4.3 in relation to the remaining available Capacity and issue it to the affected Access Seeker; and

(vii) if the Access Seeker indicates within 2 weeks of receiving the revised indicative access proposal that it is willing to negotiate Access on that basis, the negotiation process outlined in this part 4 will recommence from that point (subject to the affected Access Seeker maintaining their existing position in ant queue established by QR Network in accordance with clause 7.3.5).

Decision 4.9

4.7 Capacity Notification Register

(c) If QR Network ceases negotiations with an access seeker in accordance with clause 4.5.1(e)(v) (in respect of all or part of the Access being sought) ~~and clause 4.5.1 (f) does not apply~~, then QR Network will include:

.....

4.9 Capacity notification register (CNR)

QR Network's 2008 undertaking provides a mechanism for an access seeker, whose request for access cannot be satisfied, to be placed on the capacity resumption register (clause 7.5.1).

QR Network's proposal

QR Network has sought to broaden the intent of capacity resumption register by removing it from part 7 of the undertaking and introducing into in part 4 of the undertaking arrangements for a capacity notification register (CNR). Access seekers whose access requests cannot be met due to lack of available capacity will be placed on the CNR. When capacity becomes available, all access seekers on CNR will be notified and asked to submit an access application which will then be used for queuing purposes. Access seekers or access holders will be asked to re-confirm their place on the CNR every six months.

When capacity becomes available, QR Network will notify all parties on the CNR and they will be able to lodge an updated request for access within one month of the notice. If under such circumstances an access seeker submits an access application, then such a request for access will be deemed for the purposes of a queue to be the date recorded in the capacity notification register.

Stakeholders' comments

Stakeholders support the creation of capacity notification register but are unsure of the practical benefits or the intent of QR Network in creating such a register.

Both QR Freight and Asciano support the replacement of capacity resumption register with the capacity notification register (QR Freight, sub. no 37:16 and Asciano, sub. no. 33:13).

Authority's analysis and draft decision

The Authority supports the replacement of capacity resumption register with capacity notification register. The Authority also notes that the CNR would serve an important function for queuing purposes for capacity that can only be provided through future infrastructure enhancements.

However, the Authority requires QR Network to include the definition of CNR in the definitions section of the 2009 DAU. The Authority also requires QR Network to notify access seekers of any call for expression of interest following the completion of a preliminary feasibility and commercial viability study relating to a major project.

Decision 4.10

The Authority requires QR Network to include a definition of capacity notification register in the definition section (part 11) of the 2009 DAU; and

Decision 4.11

The Authority requires QR Network to notify all access seekers on the capacity notification register when sending out an expression of interest for a Major Project.

5. ACCESS AGREEMENTS

An access agreement sets out the agreed terms and conditions for access to the network. Part 5 of QR Network's 2009 DAU governs the development of both access agreements and standard access agreements, with Schedule E summarising the principles to be included in an access agreement.

Standard access agreements are included in the undertaking to guide access negotiations. However, QR Network and an access seeker can develop an access agreement that differs from the standard access agreement.

Key differences between the 2008 undertaking and the 2009 DAU involve proposed changes to the provisions regarding liability from carriage of dangerous goods and the definition of consequential loss – copies of the coal standard access agreements were not included with the 2009 DAU.

QR Network has also proposed, but not yet formalised, an alternate form of capacity contracts or 'split contracts' in the 2009 DAU.

The Authority proposes to reject the changes to the liability provisions as the Authority believes it inappropriately transfers risk on to an access seeker/holder. The Authority will also be looking to have the standard access agreements resubmitted with a revised DAU.

The Authority also proposes that the undertaking include a framework for developing the new form of standard access agreements and subsequently amend the approved 2009 DAU with any consequential changes deemed necessary to implement these agreements.

5.1 Introduction

While access agreements can be negotiated on a case-by-case basis, the 2008 undertaking includes two standard access agreements for coal carrying train services, namely:

(a) *operator agreement* – where the operator of a train contracts directly with QR Network to acquire access rights;

(b) *access holder agreement* – where the end customer (i.e. coal mine) contracts directly with QR Network to acquire access rights, and then sub-contracts with a train operator to haul their coal.

The purpose of the standard access agreement is twofold. First, by establishing a template agreement, it seeks to facilitate the timely negotiation of access agreements by limiting the number of areas of dispute. Second, in the event of a dispute, it provides a fallback position for the arbitrator (section 119 of the QCA Act).

To date only the operator standard access agreement has formed the basis for all coal carrying train services and an access holder agreement has not been signed.

Major amendments to Part 5 of QR Network's 2009 DAU include, amongst other things, the removal of standard access holder agreement and operator agreement from the 2009 DAU and the proposal for the development of a new or alternate form of access agreement.

5.2 Standard access agreements

While access agreements can be negotiated on a case-by-case basis, volume 2 of QR Network's 2008 undertaking includes two sets of standard access agreements for coal carrying train services: an operator agreement and an access holder agreement.

Principles in Schedule E of the undertaking guide the development of access agreements for non-coal carrying trains services while providing sufficient flexibility such that the agreed terms and conditions of access suit the particular circumstances for which access is being sought. QR Network has not proposed any substantive amendments to Schedule E other than to clarify the rights of QR Network and access seekers with respect to the carriage of dangerous goods and the definition of consequential loss (discussed in sections 5.4. and 5.5).

QR Network's proposal

The 2009 DAU submitted by QR Network did not include coal standard access agreements.

Consistent with this, QR Network has also sought to amend the definition of standard access agreements in Part 11 such that a pro forma access agreement does not have to be consistent with the principles contained in Schedule E of the undertaking. Also, the pro forma access agreement does not have to be included in volume 2 of the undertaking (QR Network, sub. no. 27: 144).

Stakeholders' comments

No stakeholder comments were received on this matter.

Authority's analysis and draft decision

The Authority believes that an effective standard agreement will simplify and hasten the negotiation process by providing greater certainty for both QR Network and access seekers as it provides a basis for negotiations.

As mentioned in section 5.1 the standard access agreements serve two purposes, namely:

(a) by establishing a template agreement, it seeks to facilitate the timely negotiation of access agreements by limiting the number of areas of dispute; and

(b) in the event of a dispute, it provides a fallback position for the arbitrator (section 119 of the QCA Act).

In particular, while QR Network and an access seeker can develop an access agreement which differs from the standard access agreement, if the conditions contained in the relevant standard access agreement form part of the access undertaking it will be relied upon by the Authority in resolving a dispute in the event negotiations fail.

In addition, the Authority also believes that including the terms of standard access agreement in the undertaking provides some guidance to access seekers as to how the principles in Schedule E are reflected in an access agreement for a non-coal carrying train service.

Therefore, the Authority requires QR Network to submit standard access agreements as a part of its undertaking. The Authority also requires QR Network to amend the definition of standard access agreements in Part 11 to explicitly state that the coal standard access agreements are included in volume 2 of the undertaking.

Decision 5.1

The Authority requires QR Network to include the operator access agreement and access holder agreement in the 2009 DAU.

Decision 5.2

The Authority requires QR Network to amend the definition of standard access agreements in part 11 to the following:

"Standard Access Agreement" means a pro forma Access Agreement, incorporating terms and conditions that are consistent with Schedule E:

(i) on the terms set out in Volume 2 of this Undertaking; or

(ii) on other terms approved by the QCA as forming a Standard Access Agreement in accordance with Clause 2.4 or 5.2; or

until such time as the QCA, in accordance with Clause 5.2, approves the replacement of ceasing of such a document as a Standard Access Agreement.

5.3 Development of new or alternate form of access agreements

As part of QR Network's stakeholder consultation for the development of 2009 DAU, coal industry stakeholders identified the need to develop an alternate form of access agreement where an end user (e.g. a mine) can control capacity under the access agreement but not be required to be responsible for the operational aspects of running a train service. This would involve two separate contracts with QR Network, one with the access holder for capacity issues and the other with the train operator dealing with operational matters. As a consequence of this arrangement, the provision of capacity on the network will be split from the operation of trains on the network.

QR Network's proposal

As a part of the 2009 DAU submission, QR Network has proposed to supplement the existing access holder and operator access agreements with a new form of standard access agreement. This alternate or new form of access agreement would include two separate but linked new agreements:

(a) capacity access agreement (CAA); and

(b) train operations agreement (TOA).

QR Network intends to include the capacity management functions (e.g. rights to capacity, transfer and relinquishment of contracted capacity) of the current access holder agreement in the CAA, but the capacity will only be utilised through a related TOA which will include the operational obligations (e.g. train control functions, incident management, interface risk assessment) from the current operator access agreement. QR Network in its submission stated that it is currently developing this concept and will consult further with stakeholders on the new form of agreement.

Stakeholders' comments

Stakeholders provided in principle support for the new form of standard access agreement. However, there were varying views on the form of the new contractual arrangement especially

with regards to linkages between the TOA and CAA. All stakeholders were keen to see a transparent and open consultation process on all aspects of the new form of alternate access agreements.

The QRC strongly supported the new form of agreement in its submission. It stated that:

> *Industry considers that there is considerable merit in the option to contract capacity directly with QR Network and many QRC member companies have expressed their strong preference to execute such agreements. Industry supports the development of a new form of contract that would operate effectively as an access capacity contract, through which a mine could secure access rights. Similarly, the development of an operator licence should be developed to enable these two agreements to operate together, while providing separate obligations and rights (QRC, sub. no. 38: 24).*

However, the QRC said that it would be seeking the Authority's guidance on the development of the new form of access agreements and the associated changes in the undertaking to implement these agreements (QRC, sub. no. 38: 25).

The QRC stated that the development of a new contracting framework would allow mines to attain a greater degree of flexibility in haulage contracts as mines can obtain access rights prior to securing haulage contracts and can secure these rights beyond the date of contracted rail haulage services. This will result in the end customers avoiding obligations and exposure relating to the operation of train services.

Ensham indicated it strongly supported the new form of contract and, in terms of its development, Ensham suggested that:

> *The undertaking should provide that the QCA can require QR Network to submit draft contracts giving effect to this concept in the event that QR Network has not provided such documents prior to 1 July 2009 (Ensham, sub. no. 36: 2).*

QR Freight also supported the development of a capacity holder access agreement as it will allow coal companies to hold capacity rights to support their mines' operations without having to take on the responsibilities of operating a train service. However, QR Freight raised two issues with a capacity access agreement in Queensland, and these issues were similar to ones that emerged when the ARTC was developing a similar contracting structure in the Hunter Valley in NSW, namely:

(a) achieving alignment between a capacity holder's below-rail capacity and above-rail capacity negotiated through a haulage agreement and train operator agreements, as a misalignment between the above-rail and below-rail contracts could have adverse supply chain impacts; and

(b) determinations of above- and below-rail capacity given different train configurations as compared to a reference train service.

QR Freight indicated it supported an open and transparent consultative process for developing these new forms of access agreements, stating that:

> *This will allow an opportunity for customers and rail operators to identify specific issues and provide an opportunity for resolution with QR Network via collective agreement. Following the development of this agreement, QR Network could then seek endorsement of it through the mechanisms contained within the 2009 DAU (QR Freight, sub. no. 37: 19).*

Xstrata supported the idea that the undertaking should facilitate the ability for mines to directly apply and hold access rights in their own name. Xstrata said that a contractual arrangement similar to that in NSW would provide flexibility to producers while reducing the administrative burden on transport operators (Xstrata, sub. no. 43: 19).

Asciano also strongly supported QR Network's initiative to adopt the new form of access contracts. Asciano indicated it is keen to adopt a "driver's licence" style of model for the operator's access contract with no linkage to capacity contracts. In terms of the actual form the new or alternate agreements Asciano stated that it:

> *... sees the fundamental requirement of the new "split" access contracts as the need for complete separation of the holding of network capacity from the right to operate trains (Asciano, January 2009: 3).*

Ascaino stated that it is not clear whether QR Network will continue to maintain any ties between capacity contracts and contracts for the operation of train services. Asciano believes that the new form of agreements will promote investment in rail infrastructure by providing certainty to mines or end customers. In this regard, Asciano stated that:

> *The current difficulties in managing the network and investment in capacity stem from the inability of QR Network to have a direct relationship with the parties that are ultimately creating the demand. (Asciano, January 2009: 2).*

With regards to the development of these new contracts, Asciano stated that:

> *It is understood that QR Network intends to produce standard access agreements in this form, prior to the approval of UT3. It is hoped that this is achieved. However, in the event that it isn't Asciano would prefer to see UT3 make specific acknowledgement of the intention to have such arrangements in place as soon as possible (Asciano, sub. no. 33: 61).*

Asciano also noted that the new form of split contracts would require consequential amendments to Schedule E and possibly clause 5.1 and clause 5.2 of the undertaking.

Authority's analysis and draft decision

The Authority notes strong stakeholder support for QR Network's proposal to develop an alternate form of standard access agreement. The existing form of standard access agreements are less attractive to end customers as they cannot directly hold capacity without taking on the obligations associated with the operation of train services. The Authority believes that the new or alternate form of access agreement would provide certainty to end customers with regards to available capacity over the long run while enabling flexible operation of train services.

However, as evident from stakeholders' comments it is apparent that at the time QR Network submitted its 2009 DAU the proposed new contracts were at an early draft stage – and it is not apparent that this has significantly changed over the intervening period.

The Authority understands that, to date, discussions have yet to provide sufficient clarity on how end users and operators can utilise this new framework to flexibly manage the use of their capacity entitlements. Issues that still need to be clearly addressed are:

(a) the extent of linkage between TOA and CAA;

(b) operation of ad hoc services;

(c) flexibility in managing short term capacity transfers between operators and the role of system rules;

(d) payment of access charges and take or pay charges for ad hoc services;

(e) rights to transfer and assign capacity between same/different origin-destination; and

(f) issues with the use of a standard measure of capacity and the use of a reference train.

The Authority believes that the timely resolution of these matters will be particularly important for encouraging greater competition in the provision of train services, and therefore in the interests of new entrant train operators and end customers.

The Authority also believes that these new or amended form of agreements will provide a reasonable counter-balance to the many other amendments contained in the 2009 DAU that seek to address QR Network's concerns about its asset stranding risks. For example, QR Network has approached end users to underwrite significant expansions of its network and is seeking to formalise these arrangements by extending the applicability of access conditions for major projects (see section 6.5).

The Authority believes that it would be unreasonable for end customers to bear an increasingly significant burden on underwriting these new investments in the absence of a contracting structure that best suits their operational requirements.

The Authority notes that as currently drafted, the 2009 DAU does not provide sufficient certainty to access seekers that a new or alternate form of access agreement would be developed within the term of the undertaking.

The Authority therefore proposes a framework for developing the new form of access agreements that details the circumstances in which QR Network, or ultimately the Authority, will develop new standard access agreements for specified coal carrying train services and the process to be followed.

The Authority believes that it is essential to have a framework in the undertaking to support the development of the new form of standard access agreements since the terms and conditions of a standard access agreement generally form the basis for access negotiations. Further, this will allow stakeholders to better understand the implications of the alternate form of agreement.

Therefore, the Authority requires QR Network to amend its 2009 DAU to include an obligation that requires QR Network to consult with all the stakeholders in the coal master planning forum during the nine months from the commencement of the approved 2009 DAU on the new or alternate form of standard access agreement. At the end of that period, QR Network should submit to the Authority the following:

(a) a draft standard access agreement which allows an end customer to hold capacity directly without the obligations for above rail operational issues;

(b) a draft standard access agreement which can be entered by a rail operator which they can use to utilise access or capacity rights held directly by the end customers; and

(c) any consequential amendments to the approved 2009 undertaking.

The Authority also proposes that the undertaking include a process for the Authority to assess new standard access agreements. In this regard, an appropriate consultation process would be the one the Authority relies on when assessing a draft access undertaking. Accordingly, the Authority requires QR Network to insert a new clause 2.4 as drafted below in its 2009 DAU.

Decision 5.3

The Authority requires QR Network to introduce a new clause 2.4 in part 2 of its 2009 DAU as follows:

2.4 Introduction of new form of standard access agreements

(a) Following the Commencing Date, QR Network will consult with the members of the Coal System Master Planning Forum in relation to the

development of new forms of Standard Access Agreements for coal carrying train services.

(b) Within nine (9) months after the Commencing Date, QR Network will submit to the QCA:

(i) a draft Standard Access Agreement which can be entered by users of rail haulage services to contract directly with QR Network for Access Rights without bearing liability and obligations for above rail operational issues, subject to utilisation of those Access Rights being conditional on one or more railway operators nominated by the user entering an operator agreement with QR Network of the type described in clause 2.4 (b) (ii); and

(ii) a draft Standard Access Agreement which can be entered by one or more Railway Operators, nominated by such users who are Access Seekers or Access Holders pursuant to a user agreement with QR Network of the type described in clause 2.4 (b)(i), under which they can utilise some or all of the user's access rights, subject to assuming liability and obligations in relation to above rail operational issues, (together the Draft SAAs); and

(iii) consequential amendments to this Undertaking (the Consequential Amendments).

(c) The QCA may develop its own version of the Draft SSAs and Consequential Amendments that are consistent with this Undertaking if:

(i) QR Network does not comply with clause 2.4(b) or a notice given by the QCA under paragraph 2.4(h)(ii) for it to resubmit draft SAAs and Consequential Amendments; or

(ii) the QCA refuses to approve the Draft SAAs and Consequential Amendments resubmitted by QR Network.

(d) Where QR Network submits or resubmits, or the QCA develops, Drafts SAAs and Consequential amendments , the QCA will:

(i) publish the Draft SAAs and Consequential Amendments;

(ii) invite members of the Coal System Master Planning Forum to make submissions on the Draft SAAs and Consequential Amendments to the QCA within a reasonable period of time specified by the QCA; and

(iii) consider any submission it receives within that time.

(e) The QCA will consider the Draft SAAs and Consequential Amendments submitted or resubmitted by QR Network and either approve or refuse to approve them within sixty (60) days after the QCA receives them under this clause 2.4 or such further period as the QCA and QR Network may agree or as the QCA may reasonably determine and notify to QR Network.

(f) The QCA may approve Draft SAAs and Consequential Amendments (including Draft SSAs and Consequential Amendments developed by the

QCA) only if the QCA:

(i) is satisfied that the Draft SAAs and Consequential Amendments are consistent with this Undertaking;

(ii) considers it appropriate to do so having regard to the matters listed in s 138(2) of the Act; and

(iii) has complied with clause 2.4(d).

(g) If the QCA approves Draft SSAs and Consequential Amendments submitted under clause 2.4(b), or resubmitted under clause 2.4(h)(ii), or if the QCA develops its own version of the draft SSAs and consequential agreements under clause 2.4(c):

(i) the Draft SAAs and Consequential Amendments will apply from the date of the QCA decision, or any other date following the date of the QCA decision that the QCA determines;

(ii) the QCA will give QR Network a notice in writing stating the reasons for its decision; and

(iii) QR Network must publish a new version of this Undertaking incorporating the Draft SAAs and Consequential Amendments as approved.

(h) If the QCA refuses to approve the Draft SAAs and Consequential Amendments submitted under clause 2.4(b) the QCA will give QR Network a notice in writing:

(i) stating the reasons for its refusal and the way in which the QCA considers that the Draft SAAs and Consequential Amendments should be amended; and

(ii) requiring QR Network to amend the draft SAAs and Consequential Amendments in the way the QCA considers it appropriate and resubmit the Draft SAAs and Consequential amendments to the QCA within thirty (30) days of the notice.

(i) If QR Network complies with the notice given under clause 2.4 (h)(ii), the QCA may approve the resubmitted Draft SAAs and Consequential Amendments in accordance with clause 2.4(i).

(j) The QCA may approve the resubmitted Draft SAAs and Consequential Amendments only if the QCA:

(i) is satisfied that the resubmitted Draft SSAs and Consequential Amendments are in accordance with the notice under clause 2.4(h);

(ii) is satisfied that the resubmitted Draft SSAs and Consequential Amendments are consistent with this Undertaking; and

(iii) considers it appropriate to do so having regard to the matters listed on s138 (2) of the Act.

(k) The QCA may grant QR Network an extension of the time for submitting,

or resubmitting, the Draft SAAs and Consequential Amendments, if:

(i) QR Network provides a written request to the QCA for an extension of time which outlines the reason why QR Network requires the extension of time; and

(ii) The QCA, acting reasonably, considers that an extension of time is appropriate.

(l) If the QCA grants QR Network an extension of time under clause 2.4(k), QR Network must submit, or resubmit, Draft SSAs and Consequential Amendments, (whichever is applicable) within the time specified by the QCA.

(m) Nothing in this clause 2.4 affects:

(i) The rights of QR under section 142 and related provisions of the Act; or

(ii) **The operation of clause 5.2 of this Undertaking.**

5.4 Indemnities and liabilities for carriage of dangerous goods (Schedule E, clause 14)

Under the existing arrangements, each party is responsible for claims against it except to the extent that QR Network and an access holder are required to release and indemnify each other for all claims caused by wilful default or negligence of the party concerned.

QR Network's proposal

QR Network has proposed to amend clause 14 of Schedule E such that the liability for carriage of dangerous goods under all circumstance remains with the access seeker who can then address this via its haulage agreement with its customer.

As such QR Network has sought to amend clause 14 of Schedule E as follows:

> *Each party is liable for, and is required to release and indemnify each other for, all claims in respect of personal injury, death or property damage caused or contributed to (to the extent of the contribution) by the wilful default or negligent act or omission of that party or its staff save and except that the access holder will be liable for, and is required to release and indemnify QR Network for, claims brought by or against QR Network relating to the carriage of dangerous goods (including explosives and radioactive material. (QR Network sub. no. 1: 69).*

QR Network's argument being:

> *In case of dangerous goods, the potential consequence of an incident caused by the wilful default of negligence of QR Network will be far greater than for other goods, purely due to the nature of the goods being carried. For example, an incident involving a train service carrying dangerous goods could result in substantial costs associated with clean up and remediation of the site.(QR Network sub. no. 1: 68).*

Stakeholders' comments

Asciano strongly objected to the proposed imposition of liability for dangerous goods claims on the access holders regardless of cause or contribution (Asciano sub. no. 33:60). Asciano stated that the proposed amendment would result in:

(a) the access holder bearing the consequences of QR Network's actions which includes negligence and default over which an operator has no control;

(b) a cost and risk imposition on non-coal traffic carried by rail traffic competing against road vehicles; and

(c) therefore a substantial change in the risk profile of all parties.

Therefore, Asciano noted that the proposed amendment to clause 14 of Schedule E represents a substantial change in policy since the introduction of the 2001 undertaking.

QR Freight supported QR Network's proposed amendment that the liability for the carriage of dangerous goods to be borne by the access seeker/holder. QR Freight argued that the issue should be commercially managed between the rail operator and the relevant customer (QR Freight sub. no. 37: 17).

Authority's analysis and draft decision

The principles in Schedule E of all of the previous QR undertakings have sought to limit QR Network's liability in terms of the carriage of dangerous goods.

QR Network has now sought to extend this limitation on its liability of the carriage of dangerous goods in that, regardless of whether QR Network is negligent or in wilful default, the access holder will be liable for and be required to release and indemnify QR Network for any claims brought against them relating to the carriage of dangerous goods.

The general principle in assessing whether the allocation of risk is efficient is whether the risk is borne by the party that is in the best position to manage that risk. In the past, the Authority has accepted that there should be some limitation of QR Network's liability in relation to certain risks. However, the amendment proposed by QR Network would mean that the access holder would be liable for property damage, personal injury and death in circumstances where QR Network has either been negligent or in wilful default of its contractual obligations.

This is a proposition that is inconsistent with past QR access undertakings (and ARTC undertakings) and transfers risks to the access holder, which they are in no position to manage (whereas QR Network should be well placed to take measures to protect against its own negligence and prevent its own wilful default). These are risks that road transport operators do not bear as well. As a result, the Authority is concerned that by seeking to introduce this extension to the limitation of liability that the transport of dangerous goods will transfer from railways to roads. The Authority does not believe that this would be in the public interest.

Accordingly, the Authority is concerned that the amendment proposed by QR Network, inappropriately transfers risk on to access holders. As such the Authority requires QR Network to restore provision under clause 14 of Schedule E to that of 2008 undertaking

Decision 5.4

The Authority requires QR Network to reinstate the 2008 DAU provisions such that, item 14 of schedule E provides the following:

> **Each party is liable for, and is required to release and indemnify each other for, all claims in respect of personal injury, death or property damage caused or contributed to (to the extent of the contribution) by wilful default or negligent act or omission of that party of its staff ~~save and expect that the access holder will be liable for, and is required to release and indemnify QR Network for, claims brought against QR Network relating to the carriage of dangerous goods (including explosives and radioactive material).~~**

5.5 Definition of consequential loss and limitation of liability (Schedule E, clause 15)

QR Network's proposal

QR Network has proposed to amend clause 15 of Schedule E, relating to limitations of liabilities, to include, for the avoidance of doubt, reference to damages for consequential loss.

Consistent with this proposed amendment, QR Network has also proposed to amend the definition of consequential loss in Part 11 of 2009 DAU (QR Network sub. no. 1:69). This amendment seeks to include into the definition of consequential loss "any loss arising out of any claim by a third party (other than a claim in respect of loss or destruction of or damage to real or personal property or personal injury to or death of any person)".

Stakeholders' comments

Asciano indicated that the amendments are of a drafting nature and do not change the intention of the principles.

Accordingly, Asciano supported the proposed changes relating to limitation of liability (Schedule E, clause 15).

Asciano also indicated it supported the amendment to the consequential loss definition, but subject to a minor clarification. Asciano said it wants the definition of consequential loss to be modified so it is clear that all QR entities constitute "third parties" for the purpose of the definition. In this regard Asciano stated that:

> *Without this clarification if, for example, QR Limited pursues QR Network for a claim, that claim, will not constitute consequential loss for QR Network's purposes and the carve-outs that apply to prevent QR Network from claiming consequential losses from an access seeker will not apply (Ascaino sub. no. 33:60).*

Authority's analysis and draft decision

The Authority notes Asciano's concerns and notes that the definition of consequential loss is unclear. The definition of consequential loss as proposed in QR Network's 2009 DAU includes, amongst other things, any loss arising out of any claim by a third party (subject to certain exclusions). The Authority agrees that there is likely to be confusion based on the current drafting, as 'Third Party' is defined in the undertaking to mean 'person other than a QR party', where QR Party is defined as a "Related Party of QR Network' but the consequential loss definition refers to 'third party' rather than the capitalised defined term. Therefore, it is arguably uncertain whether 'third party' in the consequential loss definition excludes or includes any loss arising out of any claim by a QR related party.

Therefore, the Authority accepts Asciano's claim that the meaning of third party would be clarified if it explicitly included a reference to a QR related entity.

Decision 5.5

The Authority requires QR Network to amend (iv) of the definition of consequential loss so that it reads as follows:

> **(iv) Any loss arising out of any Claim (including a Claim by a QR party), other than a claim in respect of loss or destruction of or damage to real or personal property or personal injury to or death of any person.**

5.6 Access agreements for new or renewed QR services

Prior to the corporate restructure of QR Ltd in September of 2008, QR Network had internal access agreements with QR National. With the creation of QR Network as a separate legal entity, these pre-existing internal access agreements were converted to legally binding, new access agreements effective from 1 September 2008. The new access agreements were executed on the same terms and conditions as the internal access agreements, other than consequential amendments which were required to give effect to the corporate restructure.

QR Network's proposal

QR Network has proposed to delete provisions (clause 5.3 (a) and (b)) relating to internal access agreements from its 2008 undertaking. QR Network said it was unnecessary to retain clause 5.3 from the 2008 undertaking because it related to internal access agreements, which were no longer in force now that QR Network was a separate subsidiary of QR Ltd. However, QR Network said that even with the clause deleted its obligations under sections 104 and 125 of the QCA Act will continue to apply.

Stakeholders' comments

No stakeholder comments were provided.

Authority's analysis and draft decision

The Authority accepts that there are no longer any internal access agreements between QR Network and QR National. Indeed, as part of its decision on the 2008 undertaking the Authority approved the conversion of existing internal access agreements into formal access agreements with QR Ltd and its newly created separate corporate entities.

However, clauses 5.3(a) and (b) of the 2008 undertaking did not solely relate to the QR internal access agreements, but placed limits on the development of new or renewed agreements between QR Network and related parties with references to sections 104 and 125 of the QCA Act. The mere separation of QR Network and QR National into separate companies under common ownership does not of itself address the issue which these clauses sought to address – namely QR Network developing Access Agreement in a way that prevents or hinders access to other Access Seekers/Holders (including by offering QR related parties more favourable terms of access).

The Authority considers it is not sufficient to merely rely on section 104 and 125 of the QCA Act itself for this protection because both sections contain an exception stating that the section will not be contravened by conduct done in accordance with the terms of an approved access

undertaking. Therefore, to ensure that any conduct of QR Network's in developing access agreements to be entered with QR related parties is not exempted from the operations of sections 104 and 125, the Authority considers it is necessary that clauses 5.3(a) and (b) of the 2008 undertaking are reinstated.

Therefore, while the Authority accepts that references to internal access agreements are now redundant, it believes that the rationale for the previous clause 5.3 remains. Accordingly, the Authority requires QR Network to retain the deleted clause 5.3 in its 2009 DAU.

Decision 5.6

The Authority requires QR Network to reinstate the deleted clause 5.3 as follows:

(a) **The development of Access Agreements with QR or a QR party for new or renewed QR Train Services will be subject to this Undertaking, provided that QR does not prevent or hinder Access in any way contrary to s. 104 or s. 125 of the Act.**

(b) **Where there is a Reference Tariff and a Standard Access Agreement for a type of train service, and an Access Agreement with QR or a QR party for a new or renewed QR Train Service of that type is consistent with that Reference Tariff and Standard Access Agreement, then QR will be deemed to have complied with clause 5.3 (a).**

5.7 Withdrawal of standard access agreements

QR Network's proposal

The 2009 DAU includes a new clause 5.2(k) which states that a proposed standard access agreement may be withdrawn at any time by the party who developed the proposed standard access agreement (i.e. QR Network) – unless it was created following a notice under clause 5.2 (b) from the Authority.

Stakeholders' comments

No stakeholder comments were received on this issue.

Authority's analysis and draft decision

As drafted the amended clause 5.2 (k) would arguably, allow for the withdrawal of an approved standard access agreement even after it had been approved by the Authority, most importantly including the new split forms of standard access agreements to be introduced during the period of the proposed undertaking.

The Authority believes that this withdrawal right should not apply to the split forms of standard access agreements to be introduced and that on approval of any other new or amended standard access agreements, such agreement should also fall within the category of standard access agreements which cannot be withdrawn without the prior approval of the Authority. Therefore, the Authority requires QR Network to amend clause 5.2 (k) from part 5 of its 2009 DAU to clarify that position.

Decision 5.7

The Authority rejects QR Network's proposal for it to be able to withdraw a proposed standard access agreement at any time. Accordingly, the Authority requires QR Network to amend clause 5.2 (k) for its proposed 2009 DAU as follows:

(k) A Proposed Standard Access Agreement submitted or resubmitted under this clause 5.2 may be withdrawn at any time prior to a decision by the QCA approving it, by the party who developed the Proposed Standard Access Agreement, except that if the Proposed Standard Access Agreement relates to a notice given by the QCA under clause 5.2(b) then it may only be withdrawn with the consent of the QCA.

6. PRICING RELATED ISSUES

Part 6 of QR Network's 2009 DAU sets out the principles for developing access charges in general, and the specific processes for establishing reference tariffs. Schedule F defines the characteristics of the reference trains and the associated reference tariffs for coal-carrying train services on the central Queensland and western systems.

The major changes QR Network has proposed to make in the 2009 DAU include relaxing the restrictions on imposing access conditions, combining clusters in the Goonyella and Blackwater systems resulting in single tariffs for each system, removing penalties for breaches and rewards for outperformance, and providing more measures in the revenue cap review process to protect it from variations in cashflow.

The Authority considers that it is not reasonable for QR Network to remove the penalties and rewards. It has also proposed amendments to ensure access conditions are imposed in a reasonable manner, and changes to simplify QR Network's proposed mechanism for reviewing and resetting reference tariffs and the revenue cap.

6.1 Introduction

The objective of Part 5 of the QCA Act (s.69E) emphasises the efficient provision of services with the effect of promoting competition in upstream and downstream markets. To assist in this, the criteria for approving an access undertaking (s.138(2)) require the Authority to have regard to the interests of the various parties as well as a number of pricing principles (s.168A), namely that prices for a declared service should:

(a) generate sufficient revenue to cover the efficient costs of providing the service, including a return on investment commensurate with the commercial and regulatory risks;

(b) allow for multi-part tariffs and price discrimination where it aids efficiency;

(c) not allow a vertically integrated access provider to discriminate in favour of its downstream operations (unless it is justified by higher costs); and

(d) provide incentives to reduce costs and improve productivity.

The 2009 DAU includes pricing principles, and reference tariffs for coal carrying train services, that seek to provide greater clarity for developing and setting tariffs for QR Network's below-rail infrastructure. The undertaking's pricing principles need to be consistent with these requirements of the QCA Act.

The pricing principles in Part 6 and Schedule F of the 2009 DAU are generally consistent with those in past access undertakings. However, QR Network has proposed:

(a) deleting a restriction on how it can use price differentiation (section 6.2);

(b) removing a reference to private infrastructure (section 6.3);

(c) allowing departures from the pricing principles to benefit the transport supply chain (section 6.4);

(d) increasing the scope for imposing access conditions (section 6.5); and

(e) reorganising and redrafting sections with a stated goal of increasing the clarity of the undertaking. The relocated clauses from the 2008 undertaking include:

(i) the rules on reference tariffs for new services in 6.4.4, which have been moved and combined with similar provisions in Schedule F, Part B, 4.1.2 to 4.1.4 (section 6.8);

(ii) the dispute resolution provisions in 6.4.2(o) to (s) and 6.5.2(d), which have been moved to the new Part 10 section on dispute resolution; and

(iii) the definition of 'access conditions' in 6.5.2(e), and the 'definitions and interpretation' clauses in Schedule F, Part B, 5, which have been moved to the definitions section, Part 11;

The matters identified in (e)(ii) and (e)(iii) above have been reviewed by the Authority and, apart from some specific instances which are discussed in the sections of this draft decision to which they apply, they simply involve a change in the clauses' location within the undertaking with no change to the effect or meaning of the undertaking.

6.2 Price Differentiation

The pricing principles in Part 6 of the 2009 DAU cover a range of matters, including capping the amount of revenue QR Network can earn on a section of infrastructure, prohibiting cross-subsidisation of individual, or combinations of, train services and restricting the circumstances when QR Network can price discriminate between train services (i.e. between markets but not within a market). These principles are largely consistent with past undertakings.

However, in its 2009 DAU, QR Network has proposed removing a restriction on establishing access charges for the purpose of preventing or hindering access by a non-QR Ltd party. The section from the 2008 undertaking proposed to be deleted is as follows:

> *6.1.2 Establishment of Access Charges for QR Train Services*
>
> *In developing Access Agreements with QR or a Related Party of QR in accordance with Subclause 5.3, QR Network will not establish Access Charges for QR Train Services for the purpose of preventing or hindering Access by a Third Party Access Seeker into any market in competition with the QR Operational Business Group providing those QR Train Services (QR Network, October 2008: 49).*

QR Network said it was unnecessary to retain clause 6.1.2 from the 2008 undertaking because it related to clause 5.3 of the 2008 undertaking, which governed internal access agreements, and had been deleted in the 2009 DAU. Further, QR Network said that, even with clause 5.3 removed, it would retain its obligations under sections 104 and 125 of the QCA Act that also seek to limit preferential self-dealing (QR Network, sub. no. 1: 73).

The QRC said 'the establishment of the QR Network legal entity as a 100% subsidiary of QR Ltd would be unlikely to reduce the need for the clause [6.1.2] in any material way' (QRC, sub. no. 38: 39).

The Authority notes that one of the key objectives of regulating a vertically integrated monopoly business is ensuring that the group does not exploit its market power in one market to favour its own subsidiaries that operate in competitive markets.

The Authority has required QR Network to restore clauses 5.3(a) and (b) (as they appeared in the 2008 undertaking) in the 2009 DAU (see section 5.6 of this decision). The same arguments about sections 104 and 125 of the QCA Act that the Authority has made in regard to those clauses, apply to clause 6.1.2. In particular, the sections of the QCA Act do not offer the same overarching prohibition on favouring a related business that is provided by the proposed deleted clause 6.1.2. It would still be possible for QR Network, even with both s.104 and s.125 in

place, to engage in conduct that favoured other QR Ltd subsidiaries, as long as such conduct was consistent with the undertaking.

In order to avoid any ambiguity about the QR group's ability to exploit its market power in that way, and to be consistent with the requirement that clause 5.3 be restored, clause 6.1.2 should be reinstated to the 2009 DAU. QR Network must also restore related clauses in the interpretation section of the undertaking, which clarify how the Authority will determine that conduct has been for the purpose of hindering access by a third party. The clauses which must be restored in 11.2 of the 2009 DAU are 10.2(r), 10.2(s) and 10.2(t) of the 2008 undertaking.

Decision 6.1

The Authority rejects QR Network's proposal to remove from the 2009 DAU the restriction on establishing access charges for the purpose of preventing or hindering access by a non-QR Ltd party. Therefore QR Network must restore clause 6.1.2, and the related clauses 11.2(r), 11.2(s) and 11.2(t), as included in the 2008 undertaking.

6.3 Private Infrastructure

QR Network has included a clause in the 2009 DAU which requires that, for a new mine which uses QR Network's rail infrastructure, the train services that travel between the mine and its most common destination will be incorporated in a new or existing reference train service.

Clause 6.4.2(b) is largely the same as it was in the 2008 undertaking. However, QR Network has:

(a) removed a specification that services for mines located on private infrastructure apply from the point where the private infrastructure connects to QR Network's rail infrastructure; and

(b) substantially redrafted clause 4 of Schedule F, part B, which sets out the mechanisms for the common cost contribution calculation and system test, including how they will apply to private infrastructure (section 6.8).

The Authority had insisted that 6.4.2(b) and other clauses be included in the 2006 undertaking to address the Authority's concerns that competition in the market for providing rail infrastructure may be adversely affected by the structure of the coal reference tariffs. In particular, the Authority was concerned that mines that sought to use private infrastructure might not receive the full benefit of the distance taper, and therefore QR Network would have a competitive advantage in providing new spurs.

This requirement about the treatment of private infrastructure has largely been retained, although it has been moved from 6.4.4 of the 2008 undertaking to clause 4.1 of Schedule F, Part B in the 2009 DAU.

While removing the specification about private infrastructure from clause 6.4.2(b) does not necessarily alter the intent of the 2009 DAU, it may result in some ambiguity. In particular, schedule F, Part B refers only to the CQCR, and does not specify what will happen in the western system. Therefore, the wording on the treatment of private infrastructure should be changed to make it absolutely clear how clause 6.4.2(b) will be applied.

However, it is not appropriate to restore the clause exactly as included in the 2008 undertaking, as this may create a conflict with QR Network's proposed clause 4.1.3 of Schedule F, Part B in

the 2009 DAU, which specifies how private infrastructure will be treated when setting a reference tariff.

Therefore, clause 6.4.2(b) should be amended to restore the deleted words from the 2008 undertaking, with the added phrase: 'and the Train Services do not fall within Schedule F, Part B, Clause 4.1.3(a)', as set out in decision 6.2.

Decision 6.2

QR Network must amend clause 6.4.2(b) to read:

> **6.4.2(b) Unless otherwise agreed with the QCA, where a new coal mine is developed and Train Services servicing that mine will utilise Rail Infrastructure in the Central Queensland Coal Region or Western System, the Train Services travelling between the mine (or where the mine is or will be adjacent to Private Infrastructure and the Train Services do not fall within Schedule F, Part B, Clause 4.1.3(a), the point where that Private Infrastructure connects to the Rail Infrastructure) and its most common destination will be incorporated in a new or existing Reference Train Service in a manner consistent with the requirements of Schedule F.**

6.4 Departures from pricing principles

As indicated above, QR's access undertakings have included the principles that no user should pay more than, or less than, a fair amount, and that the owner of the asset should not earn more than a reasonable profit. The lower bound on prices is generally set at the incremental cost of serving a particular customer, while the ceiling is the cost of providing services to a customer, or group of customers, on a stand-alone basis.

QR Network's proposal

QR Network has proposed that it be allowed, in certain circumstances, to establish a new reference tariff, or vary an existing reference tariff, such that it does not conform with the pricing principles. QR Network argued that this was justified because not all the costs or benefits affecting the coal supply chain were captured in the pricing limits that applied to a reference train service.

> *As a consequence, it is possible that reference tariffs which are established or varied to provide appropriate pricing signals for access holders and access seekers (such as through a supply chain credit) will breach the pricing principles in the way the principles are currently drafted (QR Network, sub no. 1: 73).*

In such cases, QR Network wants to be able to apply to the Authority for approval of access charges that exceed the stand-alone cost of providing access for a service or combination of services. Such an access charge would be permitted if the non-conformance from the usual requirements was 'for the primary purpose of promoting efficient investment by either QR Network or another person in the relevant transport supply chain' (clause 6.2.1(b) in QR Network, sub no. 25: 36).

QR Network said potential applications included:

(a) rewarding above-rail investments that were more efficient than below-rail investments which provided a similar supply chain outcome; and/or

(b) introducing the proposed amalgamation of the AT5 electrical tariff across the Goonyella and Blackwater systems (section 6.10).

QR Network said that, in order to gain approval for a non-conforming access charge, Schedule F of the 2009 DAU provides for it to submit a variation that includes:

(a) 'details of the methodology, data and assumptions used to vary the reference tariff';

(b) the information required to show whether the reference tariffs fits within the pricing limits; and

(c) 'information on why QR Network considers that the variation of the reference tariff will promote efficient investment by either QR Network or another person in the coal transport supply chain'.

The 2009 DAU also provides for the Authority to publish details of the proposed variation, and to invite and consider comments from stakeholders. The Authority may approve the proposed variation if it is satisfied it is consistent with the undertaking, as specified in the proposed clause 2.2.5 of Schedule F, Part A (QR Network, sub. no. 25: 143).

Stakeholders' comments

The QRC said draft amending undertakings and binding rulings were already available to allow QR Network to breach the pricing principles with the Authority's approval.

> *A benefit of including the proposed provision in the undertaking may be that it will allow a more efficient approval process. The risk of the provision is that it may result in participants in the coal chain withholding investments in the hope of having QR Network use this clause to provide additional incentives (QRC, sub. no. 38: 39).*

The QRC noted the amendment was not required for the amalgamation of the AT_5 electrical tariffs, which would be approved via the Authority's approval of the 2009 DAU. The QRC concluded the proposed amendment should be deleted, or it should include guidelines as to the circumstances in which the provisions could be used (QRC, sub. no. 38: 39).

QR Freight endorsed the proposed change, as it would promote decisions based on supply-chain considerations (QR Freight, sub. no 37: 26). Asciano also favoured the proposal:

> *Given that any breach of the limits must be sanctioned by the QCA, Asciano believes this gives sufficient protection of all stakeholders' interests that this change can be supported (Asciano, sub. no. 33: 54).*

ARTC said 'such an allowance would fly in the face of traditional industry and regulatory thinking'. However, there were circumstances where it would be reasonable to use pricing signals that delivered 'more efficient integrated outcomes' for the coal chain as a whole.

ARTC said it was necessary to ensure QR Network did not use the ability to breach the pricing principles to:

(a) provide an advantage to QR Ltd-controlled entities over third parties; or

(b) increase pricing to a level the market could not afford.

ARTC said it would be cautious about 'permitting recovery in excess of full economic cost of service provision in the long run'. It noted its proposed Hunter Valley access undertaking addressed similar issues with a loss-capitalisation approach. This approach provided for the

below-rail operator to recover in later years the cost of early-year losses incurred from providing access to a start-up user (ARTC, sub. no. 32: 10-11).

Authority's analysis and draft decision

The Authority accepts that there may be instances where it is appropriate for QR Network to breach the pricing principles, if doing so will provide an overall net benefit to coal supply chain participants. In particular, as train operations on the central Queensland coal network are becoming more complex, the Authority considers that circumstances might arise that increase the likelihood of a breach being justifiable.

In addition, the Authority considers that QR Network's proposed process for approving reference tariffs that breach the pricing principles is robust and aligns with the process currently used for approving other variations to reference tariffs (e.g. for revenue cap adjustments). In this regard, the 2009 DAU requires QR Network to provide certain information in support of its claim, including detail on the data and reasoning underlying it, and stakeholders have the opportunity to provide comments to the Authority on this information to assist it in deciding whether or not the claim should be approved (QR Network, sub. no. 25: 143).

QR Network has proposed to include a specific clause in the undertaking which allows such non-conforming access charges. The effect of the proposed clause may also be achieved through QR Network submitting a draft amending access undertaking. However the clause as provided does not grant QR Network any extra freedom to levy non-complying access charges without review by the Authority. Therefore, it is not appropriate to delete the new clause simply on the basis that the same effect may be achieved in another way.

The Authority finds that having the new clause as proposed, without guidelines, provides flexibility to the Authority in assessing any non-conforming access charge proposed by QR Network. It would not be appropriate to include guidelines on how the Authority should address such a proposed breach, without knowing what future breaches might be proposed.

Also, the related amendments QR Network has proposed in Part A of Schedule F of the 2009 DAU set out clearly that QR Network will have to supply information to the Authority to demonstrate that the primary purpose of any proposed breach is to promote efficient investment in the coal supply chain.

Therefore, the scope for approved breaches applies only in those limited circumstances. The Authority is inclined to support any efforts to improve the operation of the supply chain, whether by investment or operational change, as long as they are reasonable.

Nevertheless, there are potential problems with non-conforming access charges under the proposed provision, and the Authority can foresee circumstances in which it would not approve a breach. These include where:

(a) the costs and benefits relating to the non-conforming access charge were solely above-rail and not passed on to customers; or

(b) there was an adverse effect on competition.

However, the Authority notes that the onus would be on QR Network to demonstrate to the Authority that a proposed breach of the pricing principles was appropriate. The Authority would review the merits of any proposed breach. At that time, it would seek and consider public comment on issues, including:

(a) whether QR Network was recovering more than its full economic cost of service provision in the long term;

(b) how any over-recovery should be addressed;

(c) whether the incentives were necessary, bearing in mind issues including the potential that the request arose because of game-playing by customers or QR Network; and

(d) whether the proposed access charges were at a level the market could afford.

Given the requirement that any proposed non-conforming access charge would be subject to review and approval by the Authority, the Authority proposes to approve QR Network's changes in 6.2.1(b) and Schedule F, Part A, 2.2.1(a) and 2.2.5.

6.5 Access conditions

New rail infrastructure can be expected to last 35 to 50 years. New coal mines, however, may exhaust their reserves or succumb to market changes in fewer than 15 years. QR Network has argued during the preparation of past undertakings that this creates a risk of 'asset stranding', meaning QR Network could be left with infrastructure that has decades of remaining life, but for which there is no paying customer to cover the remainder of its sunk costs.

To offset this asset stranding risk, the Authority approved provisions in past undertakings that allowed QR Network to impose 'access conditions' in access agreements and limited the circumstances in which the Authority could optimise assets from the regulatory asset base.

These access conditions have sometimes involved up-front capital underwriting agreements, which transfer some or all of the asset stranding risk to the users of new rail infrastructure. QR Network then recovers its construction cost whether or not the infrastructure is used. The rules in the 2008 undertaking permit QR Network to set access conditions for spur lines, where the use of the asset depends on a single user. They prevent QR Network from imposing those conditions on the mainline sections of its central Queensland network, where the diversity of mines using the infrastructure, and the size and quality of the coal resource, reduces or eliminates QR Network's risk that the assets will be stranded.

The Authority was concerned that up-front capital underwriting agreements for mainline operations could result in an imbalance in the rights of QR Network and customers in that:

(a) QR Network would be covered for the asset stranding risk; but

(b) the customer might not gain full advantage of their underwriting as they would not necessarily gain the rights over the capacity they had underwritten (e.g. the capacity could create 10 new train paths for 30 years yet the customer might only require six train paths for 15 years).

There are also serious questions over whether such a model for capacity on the shared network is efficient and equitable as some capacity applications may not prompt the need for an expansion and the capital cost per train path will be higher for some expansions than others. This is therefore likely to result in game-playing by access seekers as they attempt to 'free ride' on the assets underwritten by others.

QR Network's proposal

QR Network has sought to expand the use of access conditions into areas that are prohibited in the 2008 undertaking. Under its proposed changes, QR Network would be able to impose access conditions for sections of track, where the conditions applied to the funding of a 'major

project'. This is an exception to the general rule which prevents QR Network from setting access conditions for mainline track infrastructure, and is set out in 6.5.2(a)(iii) and 6.5.2(c)(ii) of the 2009 DAU.

QR Network has proposed to define a major project as a program of related works costing more than $300 million or adding more than 30% to a system's regulatory asset base (QR Network, sub no. 25: 96). QR Network has also applied this definition of 'major projects' to the treatment of a queuing mechanism, as part of the 2009 DAU's negotiation framework (see chapter 4 for more details on the definition, and the queuing mechanism).

QR Network argued it was appropriate to treat major projects differently as they 'involve significant investment by QR Network and the associated financial risks are substantially different and greater than those for other types of projects' (QR Network, sub. no. 1: 75). For example, the major project definition would apply to large investments such as the Goonyella-Abbot Point project, and to the rail infrastructure required to serve the proposed Wiggins Island Coal Terminal at Gladstone (QR Network, sub. no. 1: 63).

Stakeholders' comments

ARTC, Asciano and QR Freight said there was an in-principle case for QR Network to request capital contributions as a condition of providing access to the mainline sections of its network, where that access required construction of a large project.

However, the QRC was concerned that:

(a) the definition of a 'major project' was likely to encompass routine duplications, where it was not clear special access conditions were appropriate;

(b) it was likely that a DAAU process would be triggered to allow access conditions for major projects even with the proposed exception added to the undertaking; and

(c) QR Network had removed the limits on the scope of access conditions by amending the list of potential applications to be 'without limitation' (QRC, sub. no. 38: 40).

The QRC also suggested that the access conditions be subject to a process which required the prior approval of the Authority (see chapter 4 for more details).

Xstrata made a similar suggestion. It provided specific drafting to amend the rules on access conditions, by making the entire section 'subject to the prior approval of the QCA' (Xstrata, sub. no. 45: 49).

ARTC said its undertaking provided for users to make capital contributions, but not for them to be imposed.

> *In principle, and given that QR Network is currently able to impose access conditions with respect to spur lines, it would not be unreasonable to permit similar access conditions with respect to major projects, given the similar exposure faced by QR Network. This is subject to any condition applying to all users (beneficiaries) of the major project in an equitable way (ARTC, sub. no. 32: 11).*

ARTC also said QR Network should not be permitted to earn a rate of return on any capital contribution (ARTC, sub. no. 32: 11). Similarly, Asciano said there was the potential for QR Network's return on an asset subject to an access condition to be double-counted.

> *Asciano is of the view that it is not unreasonable for QR Network to be able to seek to mitigate its financial risk where such a risk is materially larger than the risk associated with other parts of the network. However, this should not extend to allowing QR Network to both mitigate its risk through a*

special arrangement and recover a return through the access charge for that same risk (Asciano, sub. no. 33: 54).

Authority's analysis and draft decision

The Authority accepts that QR Network faces a degree of asset stranding risk in that its access agreements generally have a shorter duration than the technical and economic lives of the below-rail assets to which they apply. The risk is however offset to a substantial extent by the large, low-cost reserves of coal remaining in central Queensland, and the likelihood that QR Network will recover its sunk cost from another user, even if the original user does not renew its access agreement.

It is appropriate for QR Network to transfer that asset stranding risk to a user in cases where the user is best able to manage the risk of asset stranding. Therefore, access conditions have been allowed in past undertakings where there is a single mine on a spur, or where a the access seekers wanted to operate a non-standard train that required modifications to existing infrastructure that other train operators would not utilise. In such cases, the access seekers are more able than QR Network to assess and manage the risk that it will stop operating the train service before the life of the rail infrastructure has expired.

The issue is more complicated where QR Network has to make a large capital investment and multiple miners will use the new piece of infrastructure, as with the Goonyella to Abbot Point (GAPE) project. The Authority notes that the diversity of users on the new line would tend to reduce the risk of asset stranding. However, the high cost of infrastructure required to develop a new rail corridor, relative to the overall value of QR Network's existing assets, is likely to increase QR Network's financial leverage. In the event that the new mines did not succeed, or shipped less coal than they had originally forecast, QR Network could be left with a substantial asset that generated less than adequate returns.

Therefore, it is appropriate for QR Network to be able to impose access conditions for new infrastructure associated with a major project. Access conditions on an asset such as the GAPE project would protect QR Network from the risk that users would demand that the network be over-constructed to meet a brief peak in demand. This would be in addition to the effect of the take-or-pay provisions which ensure that users face the consequences of requesting more capacity than they need.

However, and as reflected in the comments by stakeholders, it is more questionable whether the rights that QR Network has sought in this regard are adequately balanced and/or constrained by the rights of the counterparties to the access conditions.

The Authority considers that, in general, an obligation imposed on an access seeker should be counterbalanced by a right which is given in return. This works at its simplest where the obligation to pay access charges to QR Network gives the access holder a right to below-rail access. It should also apply where QR Network has obliged an access seeker to underwrite the capital cost of a major project.

Given that access seekers will be expected to underwrite the cost of the infrastructure, it is appropriate and reasonable that there be a process in place which ensures proper consultation, and approval by the Authority, as set out in section 4.2.

Further, as implied by ARTC and Asciano, any access conditions required by QR Network should be purely to offset the asset stranding risk. It would not be appropriate for QR Network to use an access condition to gain revenue that was materially beyond what was permitted through the reference tariff. This potential over-recovery is prevented by a clause which has its main terms carried over from the 2008 undertaking. Clause 6.5.2(d) in the 2009 DAU requires that, for any excess return, QR Network must either:

(a) negotiate an agreement with the access seeker to pay a rebate equivalent to the amount of the access charge that relates to the return on any infrastructure enhancements that are funded by the access condition; or

(b) exclude the value of the relevant infrastructure enhancements from the calculation of the cost base used to determine the access charge.

This has the effect of precluding QR Network from making a double recovery of revenue from access conditions and access charges. However, clause 6.5.2(d) as included in the 2009 DAU does not prevent QR Network from recovering the value of the asset in the tariff over a period that is shorter than the access seeker recovers the access condition payment through the rebate.

The Authority is concerned that, although the present value of the two streams of payments may be the same, QR Network secures a benefit by recovering the value of the asset faster than it pays back the amount it owes to the access holder.

Therefore the Authority requires that QR Network amend its proposed clause 6.5.2(d)(i) by appending the phrase: '<u>with the rebate being payable over no longer period of time than the asset lives of the relevant Infrastructure Enhancements (as endorsed by the QCA, from time to time, for the purposes of calculating the Regulatory Asset Base)</u>'.

The Authority notes that QR Network's explanation of its treatment of major projects says it 'would be permitted to seek funding for the costs associated with any feasibility study, either directly from Access Seekers or via the coal master planning process in Schedule A' (QR Network, sub. no. 1: 62). However, this is not entirely accurate as the clauses in the 2009 DAU do not restrict the access conditions to funding feasibility studies. They specify that:

> *QR Network may require an Access Seeker to agree to Access Conditions before being granted Access Rights, to the extent that this is reasonably required in order to mitigate QR Network's exposure to the financial risks associated with providing Access for the Access Seeker's proposed Train Service (QR Network, sub. no. 25: 43).*

In practice, QR Network has typically imposed access conditions which involve the access seeker underwriting most or all of the capital cost of a project, not just the feasibility study.

The Authority also notes that QR Network has not proposed in the 2009 DAU any prescribed process that it must use for imposing access conditions for major projects. The Authority is concerned that users should receive sufficient information, in a timely manner, to properly assess the implications of agreeing to such an access condition. The process required by the Authority is linked to the capacity allocation process for major projects, which is detailed in chapter 4.

The Authority accepts the QRC's concerns about QR Network's proposed definition of a 'major project'. The definition is too open-ended and gives QR Network too much discretion, in that it could be applied to a group of routine projects on a system, which together exceeded the $300 million threshold. This matter was addressed in chapter 4 of this decision where the Authority required QR Network to change the definition to set out clearly the sort of major infrastructure expansion developed as a consequence of a major external development (such as a new port) to which it is intended to apply, and rule out aggregations of smaller projects that are part of the incremental expansion of an existing system.

Deeming

The rules in the 2008 undertaking regarding access conditions set out circumstances in which they are deemed to be reasonable, and circumstances in which they are deemed to be unreasonable. In summary, they are deemed in clause 6.5.2(b) to be reasonable for a single-user

branch or spur line, and deemed in clause 6.5.2(c) to be unreasonable for a mainline expansion, as discussed above.

In the 2009 DAU, QR Network has made changes to both clauses, including:

(a) changing the wording of the restriction on access conditions for mainline sections of track from 'deemed to be unreasonable' to 'presumed not to be reasonably required' (6.5.2(c));

(b) adding a provision that it is reasonable to amend the access conditions imposed on the first user of a spur line, when another party (the subsequent party) starts using some or all of that line (6.5.2(b)(ii)); and

(c) making amendments to allow access conditions for track where the conditions cover an investment defined as a 'major project'. These amendments, which are discussed above in this section 6.5, take the form of:

    (i) clause 6.5.2(b)(iii), which says access conditions may be imposed 'where QR Network cannot provide the access sought unless it invests in a major project'; and

    (ii) the final part of clause 6.5.2(c)(ii), which amends the restriction on mainline access conditions by adding 'except where the infrastructure enhancement is part of a major project'.

The Authority considers that QR Network has proposed to substantially increase its rights by changing the wording at the beginning of 6.5.2(c) to replace 'deemed' with 'presumed'. The change from 'deemed' to 'presumed' can be interpreted as implying that the presumption can be overcome by contrary evidence. Therefore, by making that change, QR Network has opened the possibility for it to challenge the prohibition on imposing access conditions for mainline infrastructure. The Authority has already stated in this section the reasons why QR Network should not be able to demand access conditions on the mainline.

The Authority, therefore, rejects QR Network's proposed change to 'presumed' in 6.5.2(c), and requires that QR Network amend the clause to read 'deemed not to be reasonably required'.

The issues relating to the treatment of subsequent parties are similar. QR Network has argued that the new clause 6.5.2(b)(ii) is required to permit it to apply the rules on the treatment of subsequent parties that are set out in clause 6.5.2(e).

> *QR Network believes that if it is required to impose access conditions on a subsequent party, then those access conditions should be deemed to be reasonably required (QR Network, sub. no 1: 75).*

The Authority is concerned, however, that including clause 6.5.2(b)(ii) in the undertaking has the effect of deeming that whatever access conditions QR Network imposes on a subsequent user are reasonable. The question of whether or not the conditions are reasonable will be settled by how the responsibility is shared between the first and second user, and it is not appropriate to deem that they are reasonable, without some guidance on what sharing of the conditions would be reasonable.

Therefore, QR Network must amend its proposed clause 6.5.2(b)(ii) by including the phrase '<u>provided that the division of responsibility for the Access Conditions between the First Party and Subsequent Party is equitable,</u>'.

The Authority is also concerned that clause 6.5.2(b)(iii) has the effect of deeming that an access condition is reasonably required for a major project. However, as discussed above in this section 6.5, the Authority is requiring QR Network to change the rules for access for major

projects in 4.8 of the 2009 DAU. These changes, which are discussed in chapter 4, provide sufficient protection for access seekers.

As is also discussed above in this section 6.5, the Authority approves of QR Network's proposed change to 6.5.2(c)(ii), which sets out major projects as an exception to the rule prohibiting access conditions for mainline sections of a rail system.

Western system

The pricing principles in the 2008 undertaking that prevent QR Network from requiring access conditions for mainline sections of track apply only to the central Queensland coal region. As a result, QR Network has imposed access conditions on users of the western system, almost all of which cover investment in mainline infrastructure.

The western system lacks the diversity of coal mines that protects QR Network from asset stranding risk in the central Queensland coal systems. Therefore, as discussed in section 1.16, it is appropriate for QR Network to be able to impose access conditions for mainline infrastructure investments in the western system.

However, for the western system, just as for central Queensland, the Authority considers that an obligation imposed on an access seeker should be counterbalanced by a right which is given in return (section 1.16). Therefore QR Network must extend to the western system's users the same rights to renewal of access rights that are provided to access holders and their customers in central Queensland. This decision and the necessary amendments to the 2009 DAU, are discussed in greater detail in section 7.10.

Limitations on Access Conditions

QR Network has moved the definition of access conditions to the definitions section, Part 11. In doing so, it has added 'without limitation' before the list of conditions which are permitted, so that the list is now introduced by the phrase: 'including, *without limitation*, conditions requiring:'

The Authority notes the QRC's argument that this change has the effect of rendering the list irrelevant, by allowing QR Network to impose any other conditions it may choose. However, the 2008 undertaking already contains a clause in the interpretation section, which specifies that 'any reference to the words "include" or "including" must be read as if they are followed by the words "without limitation" (QR Network, October 2008: 119).

In spite of this, QR Network does not have unfettered freedom to impose those conditions. In particular, QR Network's conduct is constrained by the specification in the introductory clause of the definition that access conditions are to 'mitigate QR Network's exposure to the financial risks associated with providing Access for an Access Seeker's proposed Train Services'. Therefore, QR Network could not impose an onerous access condition that did not reflect its actual costs or risks. On that basis, and taking into account that the addition proposed by QR Network does not change the meaning, the Authority approves the change to the definition of access conditions.

Decision 6.3

The Authority requires QR Network to amend clause 6.5.2(d)(i) by appending the phrase: 'with the rebate being payable over no longer period of time than the asset lives of the relevant infrastructure enhancements (as endorsed by the QCA, from time to time, for the purposes of calculating the Regulatory Asset Base)'.

Decision 6.4

The Authority requires QR Network to change the definition of a 'major project' as detailed in section 4.2.

Decision 6.5

The Authority requires QR Network to restore the previous meaning of clause 6.5.2(c) by amending it to read 'access conditions are ~~presumed~~deemed not to be reasonably required'.

Decision 6.6

The Authority requires QR Network to amend clause 6.5.2(b)(ii) to add: 'provided that the division of responsibility for the Access Conditions between the First Party and Subsequent Party is equitable', as shown in appendix 6.

Decision 6.7

The Authority requires QR Network to amend clause 7.4(d) of the 2009 DAU to extend capacity rights to western system access holders, access seekers and their customers, as set out in section 7.10 of this draft decision, and the associated amendments in appendix 7.

6.6 Structure of Central Queensland Coal Reference Tariffs

At present, there are four different coal rail systems in central Queensland: Blackwater, Goonyella, Moura and Newlands. The 2006 undertaking established a maximum system allowable revenue (or revenue cap) for each of these systems.

Reference tariffs within each system are set to recover this revenue cap, which is allocated among the mines on the basis of a number of clusters of origins (i.e. loading points) and specified unloading points at ports and power stations. For the Blackwater and Goonyella systems, there are three and four clusters respectively, while Moura and Newlands are single-cluster systems (i.e. a single reference tariff for each system).

In its 2009 DAU, QR Network has proposed four principal changes to the structure of the central Queensland coal reference tariffs, namely:

(a) combining the multiple tariff clusters within each of the Goonyella and Blackwater systems into a single tariff for each of those systems (section 6.7);

(b) replacing the current 'cluster' entry test with a 'system' entry test (section 6.8);

(c) providing more detailed proposals for the pricing of cross-system traffics (section 6.9); and

(d) combining the electric infrastructure tariffs for the Goonyella and Blackwater systems into a single tariff that covers both systems (section 6.10).

6.7 Combining Clusters for Blackwater and Goonyella Systems

The aim of the tariff structure is both to allocate below-rail costs among network users on a fair and reasonable basis, and to provide economic signals which encourage efficient behaviour by QR Network and its customers. It was with these goals in mind that the Authority reviewed and approved the division of the Goonyella and Blackwater systems into multiple clusters for the 2001 and 2006 undertakings.

The clusters provided a means of aggregating mines that were geographically close, and gave QR Network a mechanism to recover costs that were difficult to attribute to a specific mine. This was intended to help simplify the tariff structure on a network where miners railed their coal different distances, along varying sections of track, to get their output to different ports or domestic customers. The expected benefits of clusters included:

(a) distinguishing between the costs of adding paths for different sub-systems of neighbouring mines on a network;

(b) allowing choice for mines in the Gregory via Goonyella cluster, which were able to use both the Blackwater and Goonyella systems;

(c) assigning the economies of density, which resulted from higher volumes on a given track section, to those mines that contributed that density; and

(d) serving the public by creating an access pricing framework that promoted the development of the state's resources (QCA, December 2000: 90).

The mines were divided into clusters based on a number of characteristics, including their contribution to total net tonnes and traffic movements on a network, and the expectation that neighbouring mines could reasonably be expected to pay similar access charges. QR Network also used the cluster mechanism to provide pricing signals. For example, it strengthened the effect of the distance taper for the north Blackwater tariff, to discourage the mines in that cluster from using the more congested but lower-cost Goonyella network to export through DBCT.

The divisions and cost allocations that were established in the 2001 undertaking were largely carried over to the 2008 undertaking. There are currently three and four clusters respectively in the Goonyella and Blackwater systems.

QR Network's proposal

QR Network has proposed to simplify the central Queensland tariff structure, by combining the multiple cluster-based tariffs within the Goonyella and Blackwater systems into single tariffs for each system. This will raise tariffs in the north Blackwater cluster relative to others in the Blackwater system, and raise those for north Goonyella, relative to the rest of Goonyella.

QR Network said clusters should be removed because:

(a) the cost allocation between clusters, established in the 2001 undertaking, is not actually related to identified costs for each cluster;

(b) high capital costs for new rail spurs, the level of minimum CCC in the 2008 undertaking, and other factors, mean almost every new mine becomes a new cluster which creates complexity as clusters proliferate;

(c) the Goonyella clusters will not provide pricing signals to encourage the use of the new GAPE line when it is built; and

(d) the actual value of the relative price changes from combining the clusters is small. The increases are 10 to 15 cents a tonne in north Goonyella, and the relative price movements are within a range between 7% lower and 11% higher across the two systems (QR Network, sub. no. 7: 3-7).

Stakeholders' comments

Asciano, ARTC, QR Freight and the QRC generally supported the amalgamation of clusters (Asciano, sub no: 33: 55, ARTC, sub. no. 32:12, QR Freight sub. no. 37: 26 and QRC sub. no. 38: 42).

> *While the initial rationale for separating the larger systems into clusters may have been sound, the continual creation of clusters with new mines and the demonstrated difficulty of administering the cluster approach over the lives of UT1 and UT2 show that this concept is no longer helpful (Asciano, sub. no. 33: 55).*

Asciano and the QRC said it would have been useful to have a comparison of tariffs under the current and proposed structures.

The QRC said 'structural changes that create material winners and losers should only be undertaken where there is a demonstrated need to change' and 'the simplification achieved by the change is not significant'. However it noted:

> *there are a range of valid arguments which support the amalgamation of clusters, including a view that any approach that seeks to differentiate pricing within a system should be supported by a clear justification for the differentiation. At this time QRC is not aware of the rationale which supports the continuation of the price differentiation inherent in the existing cluster arrangement (QRC, sub. no. 38: 42).*

The QRC also said:

(a) the distance taper in the Goonyella system has been made significantly stronger by the proposed move to a system tariff and, in order to achieve the sought distance taper relativities for a single Goonyella system tariff, the allocation [of costs] between the AT3 and AT4 tariff component should be reconsidered (p. 43); and

(b) manipulating the north Goonyella tariff upward to increase the incentives to use GAPE was not appropriate and would be unnecessary given the level of underwriting QR Network was demanding for GAPE (p. 42).

Domestic power generators Rio Tinto Alcan and Stanwell opposed the amalgamation of clusters. They said their demands on the rail network had not changed, so they saw little benefit in the changes to the tariff structures.

> *QR Network has suggested that these changes were driven by industry's desire for increased 'transparency' and simplification'. However, in QR Network's revised proposal, Stanwell fails to see a material improvement in achieving these objectives and questions the removal of clusters altogether (Stanwell, sub. no. 42: 1).*

Stanwell also questioned the use of a discount to mitigate the effect of removing the Stanwell cluster.

> *'A much simpler approach would be to maintain a cluster-based Stanwell reference tariff, instead of charging an adjusted (discounted) tariff and applying a 'discount'. In effect, is the outcome not the same? (Stanwell, sub. no. 42: 4)*

Rio Tinto Alcan, which is manager of the Gladstone Power Station (GPS), argued that it was inequitably affected by the reference tariff increases because it had fairly constant demand

requirements and, therefore, did not benefit from incremental capacity enhancements, major expansions and ever-increasing maintenance costs. Accordingly, it considered a system discount applied to the incremental capacity component of the reference tariff could give it relief from this in the same way that QR Network has proposed a system discount to Stanwell power station (Rio Tinto Alcan, sub. no. 40: 2).

Authority's analysis and draft decision

The tariffs for the central Queensland coal region have been structured to achieve a number of objectives, including:

(a) ensuring that each train service covers its own incremental cost;

(b) allowing QR Network to fully recover its revenue requirement, largely through two allocative tariff components, namely:

  (i) AT_3 – $/net tonne kilometre (ntk); and

  (ii) AT_4 – $/net tonne (nt).

(c) providing a disincentive for Blackwater coal to be transported on the Goonyella system – in general, the Blackwater system's tariffs have been higher than the Goonyella system's tariffs, but this impact has been muted by the way in which the cluster tariffs at the connecting point of the two systems have been structured.

As the AT_4 tariff component is unrelated to distance, the tariffs exhibit a distance taper as they tend to decline on a $/ntk basis as the haul length increases. This structure was originally approved on state development grounds as it tended to provide an incentive for the development of newer mines that were more distant from the export terminals.

Given these various considerations, the distance taper for train services from:

(a) the North Goonyella mines was quite significant;

(b) the Gregory mine on the Goonyella system was limited; and

(c) the North Blackwater mines was very significant as the cluster did not have an AT3 tariff component.

These various features of the past tariffs would be removed with the proposed change to a system tariff for the Goonyella and Blackwater systems. Therefore, the QRC is correct, in part, in observing that QR Network is proposing to increase the strength of the distance taper in the Goonyella system. However, it is not apparent that this is QR Network's over-riding objective.

What is more apparent is that QR Network is now less concerned about the under-utilisation of the Blackwater system's assets and more concerned about encouraging the use of the proposed GAPE infrastructure to the Abbot Point terminal. As a result, the move from cluster tariffs to a system tariff sees increases in the North Blackwater and North Goonyella tariffs and, generally, declines in the remaining tariffs – see Table 6.1 for a summary of the impact of the proposed cost increases relative to the impact of the amalgamation of the clusters.

Table 6.1: Effect of Combining Goonyella and Blackwater Clusters

	Current Tariffs ($/nt)[a]	*QR Proposal ($/nt)*[b]	*Equivalent Cluster Tariff ($/nt)*[b]	*% Increase from Current*	*Effect of combining the clusters*[c]
Blackwater	**3.04**	**4.40**		**49%**	
Central Blackwater	3.01	4.40	4.87	46%	9%
North Blackwater	3.09	4.40	4.02	42%	-9%
Stanwell	1.80	4.03	2.75	124%	-46%
Rolleston	6.44	5.90	5.90	-8%	0%
Minerva	4.95	7.48	7.48	51%	0%
Goonyella	**1.55**	**2.57**		**66%**	
Gregory via Goonyella	2.44	2.57	3.51	5%	27%
West Goonyella	1.91	2.57	4.72	35%	46%
North Goonyella	1.24	2.57	2.11	108%	-22%
South Goonyella	1.66	2.57	2.98	55%	14%
Hail Creek	1.86	2.57	2.01	38%	-28%
Moura	**3.18**	**3.14**	**3.14**	**-1%**	**0%**
Newlands	**2.43**	**2.52**	**2.52**	**4%**	**0%**
CQCR				**50%**	

Source: QR Network data and calculations by the Authority

a. As at 30 June 2009

b. As at 1 July 2009

c. This measures how much higher or lower the tariffs would be if QR Network had not amalgamated the clusters.

In achieving this result, QR Network has proposed a more generalised arrangement where its non-AT_1 and non-AT_2 revenues are collected evenly through its AT_3 and AT_4 tariff components. While the Authority accepts that a number of mines will be adversely affected by this proposal, it believes that this is reasonable as the risk of the Blackwater assets being stranded is less now than when a QR undertaking was first approved in 2001.

The Authority also accepts that the utilisation of the GAPE infrastructure is more likely to be determined by the availability of capacity at the unloading destinations (e.g. Abbot Point or Dalrymple Bay) and, as the QRC points out, the underwriting arrangements likely to accompany the development of the GAPE project. Nevertheless, the proposed changes to the tariff structure will remove some of the disincentive for mines in the North Goonyella region to utilise the proposed new GAPE infrastructure.

The Authority accepts QR Network's argument that removing the clusters will not weaken the cost-reflectiveness of the tariffs. This is because the clusters were simply a mechanism for allocating system costs and were not based on any costs associated with the infrastructure that was particular to any one cluster or another.

The Authority also accepts that a simplified tariff structure has advantages over a more complex and less well-understood tariff structure – providing, of course, that it continues to adhere to the undertaking's pricing principles.

However, the Authority does not fully accept the argument that high spur costs will necessarily result in a proliferation of clusters and, therefore, a more complex tariff structure.

Whether or not a new loading point enters an existing cluster or forms a cluster of its own, depends on both the incremental spur costs and the common cost contribution as specified in the undertaking. While high spur costs may result in a proliferation of new clusters, a requirement for a high common cost contribution will have the same effect. Indeed, the risk of a proliferation of clusters due to high spur costs could be readily addressed by reducing the level of the common cost contribution.

In this regard, the Authority notes that this is not a proposition that QR Network has discussed in its submission to the 2009 DAU. However, it is noted that, in the past, QR Network has supported a relatively high common cost contribution for new mines to ensure that the pricing arrangements remain stable into the future. In particular, QR Network has argued that, as the older mines cease production, a rebalancing of tariffs would be avoided if the new mines made a similar common cost contribution

Therefore, the Authority does not accept that it is necessary to amalgamate the clusters to avoid a proliferation of clusters. It is also not immediately apparent that QR Network's proposed approach of a premium on the system tariff will avoid a proliferation in clusters as a result of high spur costs (see section 6.8 for a separate discussion on this matter).

Accordingly, while the Authority does not accept all of QR Network's arguments, the Authority believes there are sufficient grounds for accepting QR Network's proposal to amalgamate the clusters within the Blackwater and Goonyella systems.

Domestic customers

The Authority notes the domestic customers' concerns that they will be adversely affected by the tariff increases, and by the removal of clusters. However, Gladstone Power Station receives its coal from mines in the Moura system, and from the Rolleston mine in the Blackwater system. The tariffs for those mines are not affected by the removal of clusters.

Stanwell has argued that it would prefer retention of the clusters, in contrast to QR Network's proposed move to a system tariff with a 35% discount for services to Stanwell. The Authority considers that QR Network's proposed discount is at least as transparent as the use of asset allocations between clusters, for putting into effect a lower tariff for Stanwell.

Accordingly, the Authority accepts QR Network's proposal to apply a 35% discount to the AT_3 reference tariff component for Blackwater system traffic to the Stanwell power station but that no such discount should apply to other domestic customers in the Gladstone region.

The other concerns raised by the domestic customers are similar to those of all the other customers: namely, that QR Network's proposed tariff increases will have an adverse impact on their business interests. In general, the Authority has sought to address these concerns as part of the review of the tariffs in chapter 1 of this draft decision, where the Authority has proposed to reject aspects of QR Network's arguments for increases in the reference tariffs.

6.8 The System Entry Test

The undertaking's pricing principles require a train service to pay a below-rail tariff which covers at least the incremental costs of its access to the network. The incremental costs are defined in the 2008 undertaking and the 2009 DAU as those costs, including efficient operating costs and a return on a reasonable asset base, that QR Network would not incur if the train service was not required (QR Network, October 2008: 109).

In developing reference tariffs in the CQCR, some mines have relatively high incremental costs and relatively low volumes, such that they would make little or no contribution to common costs if their tariff was calculated on the same basis as other mines. That has been addressed in the 2008 undertaking through the 'cluster' entry test, which determines whether a new mine will join an existing cluster, or become a new cluster in its own right.

The cluster entry test requires that a train service pay the higher of (on a dollar per net tonne basis):

(a) an existing cluster tariff; or

(b) the sum of its incremental cost and a defined common cost contribution (CCC).

The minimum CCC is calculated in the 2008 undertaking using formulae which take account of the distance a service travels on the mainline, and the length of its dedicated spur – separate formulae apply for each of the Goonyella, Blackwater and Moura systems. The Newlands system is covered by a different rule, which requires that no mine shall pay a lower access charge than another mine on the system which has a shorter haul distance (QR Network, October 2008: 171).

QR Network's proposal

QR Network proposed to alter the way it ensures that a mine pays at least the incremental cost of its access to the network, through two related amendments in the 2009 DAU. These amendments are:

(a) replacing the cluster entry test with a similar test, now named the system entry test; and

(b) changing the way the CCC is calculated.

QR Network said the changes were necessary as the proposed single system tariff for each of the Blackwater and Goonyella systems would remove the option of creating a new cluster for a train service that did not cover its incremental cost plus the minimum CCC.

QR Network indicated that the new test is similar to the old cluster entry test in that it requires a service to pay at least its incremental costs, plus a minimum CCC. A mine whose service fails the system test will have to pay a premium so that its tariff meets the minimum CCC threshold. The premium, in $/ntk, will be added to the AT_3 portion of the tariff.

QR Network has, however, proposed a substantial change to the way the CCC is calculated. It has abandoned the system-specific formulae that were included in the 2008 undertaking, and replaced them with a more generalised formula that draws on particular elements of a system's reference tariffs.

QR Network has proposed to set the minimum CCC at the AT_2 train path portion of the tariff for a system, plus half of the AT_3 gross tonne kilometre portion of the tariff, for the distance the train service will travel on the mainline (QR Network, sub. no. 7: 7-9).

Stakeholders' comments

Asciano, QR Freight and the QRC supported the changes in principle.

> *Asciano supports the concept of the system entry test and the associated common cost contribution, but it has insufficient data to be able to comment on the appropriateness of the application of the proposal as contained in UT3 (Asciano, sub. no. 33: 55).*

The QRC said it preferred QR Network's proposed approach of adding any payment required to meet a minimum contribution to common costs as a premium, rather than creating a new set of reference tariffs. However, the QRC raised a number of issues, including that:

(a) the proposed premium paid should be approved by the Authority and published; and

(b) the system entry test should be based on volumes contracted over the period of the mine's access agreement, so that new mines whose volumes ramped up over time would pass the test.

The QRC also said:

> *If incremental costs truly reflect the full incremental cost of the new mine entering the system and of services being operated, including the cost of any necessary enhancements to the main line (and our reading of the definition is it should be interpreted in this way), then we see no reason why the relevant mine should not pay the greater of this incremental cost, and the standard reference tariffs. This is, we see no need for a contribution to common costs to be added to the incremental cost, unless the incremental cost as defined is not a full measure of true incremental costs. To the extent there are incremental costs that are not captured by the definition, then the minimum contribution to common costs should be set at a level designed to capture this shortfall (QRC, sub. no. 38: 44).*

Authority's analysis and draft decision

In considering the 2008 undertaking, the Authority accepted that a new train service should meet its incremental costs plus some minimum contribution to common costs, where this calculation was made in a transparent and repeatable fashion.

To achieve this, and to address concerns about the treatment of privately owned branch lines, the Authority required QR Network to:

(a) replace a proposed matrix of common cost contributions with formulae which allowed any mine on a system to be assessed on a consistent basis; and

(b) have tariffs which did not discriminate between mines which used private infrastructure and mines which used QR Network's infrastructure for their loading loop and branch line.

QR Network's proposed approach to a system premium in the 2009 DAU is consistent with both of those requirements.

The new method for calculating the minimum CCC means that all mines will pay, in addition to their incremental costs, a minimum amount for each train path they use, plus half of the mine's share of the costs which are recovered through the AT_3 net tonne kilometre tariff. This calculation remains transparent to access seekers and customers and relatively simple as it is:

(a) based on clearly identifiable factors, which are part of the system tariffs, and are therefore derived from forecast costs; and

(b) consistent across all four central Queensland systems, including Newlands.

The new system test/CCC structure is also consistent with the principles from the 2008 undertaking regarding the treatment of private infrastructure. QR Network will calculate a reference tariff regardless of whether the relevant mine is located on private or QR Network infrastructure. And the access charge will be calculated as the reference tariff less any private incremental costs, as detailed in Schedule F, Part B, 4.1.2 and 4.1.3. Therefore, there will be no financial disincentive in the tariff structure for using private infrastructure.

The Authority accepts the QRC's implied logic that a new service need only pay its incremental cost or the standard reference tariff, whichever is higher. However, the incremental cost used in the system test calculations is based on the asset value and operating cost of the spur, rail loop and other infrastructure which is specifically dedicated to a particular mine. It does not encompass any amount for the train paths on the shared or mainline part of the network, which are required to transport the mine's coal to its destination. Therefore, if train services only paid their incremental cost, they would 'free ride' on the cost of the shared network.

QR Network has made a credible argument in the past that, if the CCC was too low and a new mine forced an existing mine off the system, all the other mines would end up paying more in any case. QR Network's proposed CCC threshold in the 2009 DAU provides for a mine to pay at least a minimum portion of the shared infrastructure cost, which is difficult or impossible to differentiate between individual users. This means that, in effect, the minimum CCC is a way of estimating those incremental costs that relate to a train service's use of the mainline segments of a coal system. Furthermore, the Authority accepts that it is reasonable for that minimum charge to be a material amount.

QR Network said it derived the formula for the common cost contribution with a goal of generating similar premiums to those which apply for the existing tariffs for those mines which fail the system test.

However, the effect of the test is, on average, to make it easier for a new mine to be in a system tariff. For example, the Hail Creek mine will be included in the Goonyella tariff, without a system premium, under the new mechanism. The change in effect comes from a variety of factors, including switching the test from net tonnes to net tonne kilometres.

The Authority accepts that there will be some winners and losers from the introduction of the system test, and the change to the CCC calculation. However, the simplicity and transparency of the new mechanism will benefit all users and access seekers, and the proposed test meets the objectives set out by the Authority in the 2008 undertaking.

On that basis, the Authority approves the changes in principle. The premiums determined under the formula will be published and open for comment as part of the approval process for a DAU, or for any amending undertaking to add a new tariff.

Contracted volumes

The Authority notes the QRC's argument that the system test should allow for a mine to meet the test based on contracted volumes over the life of its access agreement, so that it would not pay a premium if it failed the test only at the start of its production ramp-up (QRC, sub. no. 38: 44). QR Network said the system premium for the 2009 DAU period will be identified based on forecast volumes (QR Network, sub. no. 7: 8).

The Authority notes that the use of contracted volumes over the life of an access agreement would in some cases make it easier for a mine to pass the system test. It would also prevent a mine or QR Network from gaming the system by predicting large volume increases in order for a service to pass the test.

However, in order to apply the system test, it is necessary to have volumes, and tariffs, for both an individual mine, and the overall system. The system tariff will only be available for the period of the undertaking that is in force when it is applied, and possibly for the subsequent undertaking. Therefore, it would be impossible to apply the test over a longer term based on contracted volumes.

Further, the test is applied based on smoothed tariffs over the term of an undertaking, so it reflects any volume ramp-up during that period. And it would be unequitable for other mines

to, in effect, subsidise a new mine during the term of an undertaking, whose tariff did not cover its minimum CCC. Therefore, the Authority does not accept that the system test should be based on contracted volumes over the life of its access agreement.

6.9 Treatment of Cross-system Traffics

The system tariffs are structured on the assumption that a mine will export its coal through the port which requires the shortest or cheapest rail journey. In practice, this has not always been true, and the number of exceptions is increasing. Mines in the Blackwater and Goonyella systems already take advantage of the connection between the two networks to make use of port capacity where it is available. Limitations on the ability of terminals to expand capacity and the greater strengthening of the interconnections between systems are likely to increase the need for traffic to run between systems.

QR Network's proposal

QR Network said it expected the increase in cross-system traffic to continue. Therefore, the 2009 DAU provides more comprehensive guidance on the proposed charging arrangements to apply to such services (QR Network, sub. no. 7: 9-10). In particular, the proposed clause 4.2 of schedule F, Part B specifies that a cross-system train service would be required to pay:

(a) AT_1 (incremental maintenance tariff component) – for both the origin and destination system applied to the gtk's travelled in each system;

(b) AT_2 (incremental capacity tariff component) – for the destination system based on the number of train paths utilised. The train service may also incur this charge for the origin system if it utilises constrained corridors in the origin system (i.e. the rail corridor between Coppabella and the ports at Hay Point and Dalrymple Bay, the junction to the German Creek mine and Coppebella and Burngrove to the port of Gladstone);

(c) AT_3 (allocative tariff component) – the higher of the origin or destination system charge based on the aggregate net tonne kilometres (ntk) travelled;

(d) AT_4 (allocative tariff component) – the higher of the origin or destination system charge based on the net tonnes for the train service; and

(e) AT_5 (electric infrastructure tariff component) and Electric Charge – for both the origin and destination system applied to the egtk's travelled in each system.

Since lodging its 2009 DAU, QR Network has provided an additional submission with further details on its cross-system traffic proposal, in particular in relation to how revenue from cross-system train services will be allocated between the systems. By way of example, QR Network proposes that, for a train service originating in Goonyella and travelling through Blackwater, the revenues be allocated such that:

(a) a minimum common cost contribution is made to the destination system's revenue cap (Blackwater); and

(b) the balance of the revenues is included in the origin system's revenue cap (Goonyella).

QR Network argued that this allocation methodology was reasonable as the requirement to make only the minimum CCC to the Blackwater system was consistent with the outcome associated with a new mine – that is, Blackwater users should be indifferent between the minimum CCC from a new mine and the minimum CCC from a cross-system service.

QR Network said this principle would apply for allocating revenue for all cross-system traffic, whether or not a system premium applied (QR Network, April 2009(d): 3).

QR Network proposed that any spur capital costs be included in the origin system's regulatory asset base – which, in the case of the aforementioned example, would mean that the capital costs would be included in the Goonyella regulatory asset base.

Consistent with this approach, QR Network has also proposed that the current Gregory via Goonyella traffics be treated as cross-system services. QR Network considered that this was appropriate and would ensure that all cross-system traffics are treated in a consistent and transparent manner (QR Network, sub. no. 7: 6-7). QR Network recognised that this revised revenue allocation approach will alter the modelling for the reference tariffs submitted as part of the 2009 DAU.

Stakeholders' comments

Asciano, the QRC and QR Freight supported QR Network's proposed approach to cross-system traffics. Asciano said the 'arrangements appear both fair and administratively feasible' (Asciano, sub. no. 33: 55). QR Freight said it supported 'the changes to the cross-system traffic tariffs as the process has been clarified to provide greater transparency regarding their calculation' (QR Freight, sub. no. 37: 26)

The QRC did not support QR Network's proposed cross-system rules, in particular in relation to the AT_3 and AT_4 portions of the tariff. Rather, it proposed an alternative methodology where:

(a) the AT3 net tonne kilometre portion of the tariff should be divided between the origin and destination systems based on the ntks the service uses in each system; and

(b) the AT4 net tonne portion of the tariff should be the average of the AT4 tariffs for the systems in which it travels, weighted by the distance it travels in each system.

The QRC also wanted QR Network to clarify how it would treat system premiums in relation to the cross-system test, and how the common cost contribution would be calculated in such cases – a matter that was addressed in QR Network's April 2009 paper.

Authority's analysis and draft decision

The Authority accepts that the number of central Queensland coal services that run across more than one system is increasing, and is likely to continue to grow. It is important that the way in which tariffs are set for those services is as simple and transparent as possible. QR Network's proposal to divide the separate components of the tariff is reasonable and logical in principle.

QR Network's proposed division of the AT_1 and AT_2 tariff components is straightforward. The AT_1 incremental maintenance tariff is specified in dollars per gross tonne kilometre, and measures the maintenance burden imposed by a train service. The Authority has accepted expert advice in past undertakings that gross tonne kilometres of rail traffic on a section of track are closely correlated with the maintenance task on that track. Therefore, QR Network's proposal to allocate the AT_1 on the basis of the gtks attributed to a cross-system service for each system it uses is reasonable, as it relates the cost for using each system to the maintenance arising from the service's use of that system.

The AT_2 tariff is a charge for each loaded train path used by a train service. It provides a signal about the cost of incremental capacity on a system. QR Network's proposal that a cross-system service pay the AT_2 tariff for the use of the constrained portions of both systems (or the

destination system only in particular limited circumstances) is sensible as it signals the use of parts of the network that are likely to need expanding.

The treatment of the AT_3 and AT_4 tariffs is more problematic because, even though it seeks to recover the residual revenue from the two cost reflective components, it can provide signals to customers, operators and QR Network about which system to use. The AT_3 and AT_4 tariffs allocate the remainder of the revenue cap that has not already been recovered by other parts of the tariff (i.e. AT_1 and AT_2). The two tariffs each allocate half of that remainder, with AT_3 allocating on the basis of net tonne kilometres, and AT_4 on the basis of net tonnes. QR Network has proposed that for each of the AT_3 and AT_4 tariffs, cross-system train services will pay the higher of the two systems' tariffs.

In doing so, QR Network's proposed allocations of AT_3 and AT_4 tend discourage miners from transporting coal from a relatively lowly utilised (high priced) system to a highly utilised (low priced) system. This is consistent with past pricing practices where the tariffs have been designed to limit the incentives for North Blackwater coal to be transported on the Goonyella system.

While the alternate approach proposed by the QRC, based on the weighted average of the AT_3 and AT_4 of the two systems, is also a sensible approach, it tends to mute the disincentive to travel on the more highly utilised system.

The Authority accepts that the reasons for coal travelling from one system to another, and therefore in general having longer haul lengths, often has more to do with availability of terminal capacity rather than the relative costs of transporting coal on either system. Nevertheless, the Authority believes that there are advantages in a pricing mechanism that seeks to limit the increased utilisation of already heavily utilised sections of the network.

Accordingly, the Authority is proposing to accept QR Network's proposed pricing arrangements for cross-system traffics.

QR Network's 2009 DAU also does not address the issues that arise for mines that pay a system premium in their origin system, if they use a train service that travels through another system. However, this matter was addressed in QR Network's April 2009 paper and QR Network has said that it will amend the wording of the 2009 DAU so that the issues with system premiums and cross-system traffics are addressed.

In general, the undertaking's arrangements for the system entry test and for cross-system traffics are that the train service will tend to pay the higher of the various tariffs that might be applicable. That is, the train service pays the higher of the tariffs associated with the origin or destination systems. However, where neither of these is sufficient to cover the incremental costs plus a CCC, QR Network has proposed that the train service pays a premium, on a $/ntk basis, that reflects the CCC for the destination system, plus a CCC (in practice, likely to be half of the AT3 tariff) for the portion of the origin system mainline that is used by the service, plus its incremental costs.

The Authority proposes to accept this pricing rule on the basis that it is consistent with the other pricing rules in the undertaking. However, as this pricing rule is not contained in the 2009 DAU as submitted, the 2009 DAU will have to be amended to give effect to this rule.

In a similar vein, the 2009 DAU is silent on how the revenues from cross-system traffics should be allocated to the systems, yet QR Network's April 2009 paper has proposed a methodology whereby:

(a) the minimum CCC for the destination system is allocated to the destination system's allowable revenue; and

(b) the remainder of the revenue is allocated to the origin system.

This ensures that other users of the origin system do not have to pay for any incremental costs, largely spur-related, associated with a new train service. At the same time, other users in the destination system will not be made worse off as the new cross-system train will be treated in the same manner as a new train service that commenced in their system.

The Authority believes this is a reasonable solution to an otherwise potentially complex revenue allocation issue.

The Authority therefore requires that QR Network amend Clause 4.2 of Schedule F, Part B in the 2009 DAU as set out in appendix 6 to give effect to these arrangements for the treatment of incremental costs and revenue allocation.

Decision 6.8

The Authority requires QR Network to amend the 2009 DAU to specify how, for cross-system services:

- **tariffs (including system premiums where applicable) will be determined;**
- **rail spur capital costs will be allocated to a system's asset base; and**
- **revenue will be allocated between the origin and destination systems.**

The Authority, therefore, requires QR Network to amend Clause 4.2 of Schedule F, Part B, as set out in appendix 6.

6.10 Pricing for Electric Trains

QR Network has developed infrastructure for electric traction on all of the Goonyella system and part of the Blackwater system. Train operators using these systems have the choice of using electric or diesel locomotives. To recover the costs of the electric infrastructure, QR Network charges an electric infrastructure tariff (AT_5) where the train operator chooses to use electric locomotives. A separate charge is levied to recoup the costs of the electricity actually supplied (section 6.16).

Goonyella and Blackwater each currently have different system-wide tariffs for electric infrastructure. The AT_5 tariff is effectively calculated by dividing each system's regulated asset base (and other costs) by its expected demand. Demand for electric trains is measured in electric gross tonne kilometres (egtk), which are the gross weight of an electric train multiplied by the kilometres travelled by that train.

QR Network's proposal

As QR Network has proposed a large capital expenditure increase for the Blackwater system (300%, i.e. from around $45.3million (UT2) to $181.0 million (UT3)), without a corresponding increase in demand (42% on an egtk basis), the electric charges on the Blackwater system could be anticipated to increase significantly. Indeed, QR Network argued there was the prospect that the Blackwater AT_5 tariff could increase to such a high level that electric trains would become uneconomic on the Blackwater system.

> *If this charge for electric services in Blackwater reaches a certain point, diesels will become a more cost effective choice in that system. In this event, this will create a disincentive for QR Network to maintain and upgrade the capacity of the electrified network in Blackwater.*
>
> *In the longer term, this disincentive will ultimately impact users in the Goonyella system as it will deter Train operators' investment in electric rollingstock for their CQCR rail operations (QR Network, sub. no. 8: 9).*

QR Network has therefore proposed combining the asset bases for the two systems, and calculating a single tariff that applies on both systems. In response to submissions questioning the impact of this proposal, QR Network advised the proposed amalgamated tariff is $2.37/'000egtk. In comparison, the unamalgamated tariffs would be $4.25/'000egtk in Blackwater and $1.70/'000egtk in Goonyella, according to QR Network.

In an effort to avoid such an increase, QR Network has proposed an average AT_5 tariff for all electric systems in the CQCR (2009 DAU). This would be done by combining Blackwater and Goonyella RABs (plus other costs) and the demand of both systems (QR Network, sub. no. 8: 8).

QR Network said the current pricing structure for electric infrastructure was inefficient and inequitable. It said that the Goonyella users secured a 'free-rider' benefit as 'the Goonyella system is currently only able to operate as a 100% electric system because the Blackwater system is also electrified' (QR Network, sub. no. 8: 7). In other words, Blackwater electric trains can be transferred to Goonyella to maintain Goonyella as electric-only.

QR Network has proposed:

(a) to create a single AT5 reference tariff based on usage for central Queensland to address asset stranding risks associated with electric rail infrastructure;

(b) a single regulatory asset base for all electric traction assets owned by QR Network in central Queensland; and

(c) the application of a single electric infrastructure revenue cap (QR Network, sub. no. 8: 9-10).

QR Network indicated that combining the tariffs would enable it to invest in the electric infrastructure in the Blackwater system without increasing the Blackwater AT_5 tariff to an uneconomic level (QR Network, sub. no. 8: 7).

QR Network said the capital expenditure would improve the electric infrastructure in Blackwater, increasing the number of electric trains that can operate, making it more reliable, and changing it from the less-efficient DC electric system to an AC system which would enable new electric locomotives to operate.

QR Network said that combining the separate system tariffs would spread the cost of the Blackwater capital costs onto all electric users in the CQCR (QR Network, sub. no. 8: 10).

Stakeholders' comments

While stakeholders were not necessarily opposed in principle to the amalgamation of the AT_5 tariffs, they made a number of comments.

First, stakeholders saw benefits from the proposed Blackwater system upgrades (due to be completed in 2011-12) as they would allow the new electric locomotives to operate on both the Goonyella and Blackwater systems – currently the new AC type of electric locomotives cannot operate on the Blackwater system. While Asciano saw benefits in combining the AT_5 tariff

where electric trains can be used interchangeably between systems, it suggested that, given that this will not occur for some time, the amalgamation of the AT_5 tariffs should be deferred until the next regulatory period (Asciano, sub. no. 33: 56-57). Xstrata expressed similar views in its submission (Xstrata, sub. no. 43: 27).

Second, the QRC acknowledged that the Goonyella system received a number of benefits for being an electric-only system whereas the Blackwater system had a mix of electric and diesel locomotives – in particular, that the heavier utilisation of the Goonyella electric assets resulted in a lower price relative to the Blackwater system.

In this context, Ensham strongly supported the combination of the AT_5 tariffs saying it would correct the existing subsidy between Blackwater and Goonyella systems and influence fleet allocations for the better (Ensham, sub. no. 36: 4-5). Conversely, Xstrata was concerned that revenues from users in the Goonyella system would be subsidising the future electrification of the Blackwater system, and the producers in that system (Xstrata, sub. no. 43: 27).

Third, many stakeholders were concerned about the possible pricing implications if any future electric assets for the GAPE project were also to be rolled into a single electric infrastructure asset base. QRC said inclusion of further assets (eg GAPE) should be dealt with through a separate regulatory process (QRC, sub. no. 38: 49-50).

Fourth, while QR Freight recognised the financial risks to participants if GAPE project electric infrastructure was included in the tariff calculation, it supported the averaging of AT_5 tariff as a solution to a complex problem. QR Freight was concerned that, if QR Network did not average the tariff, its stranding risk would increase for its electric assets. QR Freight also believed that the averaging proposal would lower QR Network's risk of expanding the electric network (QR Freight, sub. no. 37: 27).

Finally, the QRC concluded that it needed more information on the impact of the proposed amalgamation on Blackwater and Goonyella customers. The QRC also noted that if the amalgamation of the tariffs was accepted, the reduction in the asset stranding risk should be considered in the assessment of QR Network's overall risk profile (QRC, sub. no. 38: 49-50).

Authority's analysis and draft decision

The Authority has confirmed QR Network's estimates that the effect of the amalgamation proposal is to increase the AT_5 tariff for the Goonyella system by 39% (ie from $1.70/'000egtk to $2.37/'000egtk) and to reduce the AT_5 tariff for the Blackwater system by 44% (ie from $4.25/'000egtk to $2.37/'000egtk). This equates to around $0.30/net tonne more on the Goonyella system and around $1.00/net tonne less on the Blackwater system. The effect of this amalgamation on an individual mine basis can be seen in Table 6.2below.

Table 6.2: Proposed Pricing for Electric Trains: Selected Mines ($/nt)

	UT3 Individual Tariff ($/nt)	*Combined Tariff ($/nt)*	*Change ($/nt)*	*% Change*
Goonyella				
Saraji	$0.57	$0.80	$0.23	39%
Moranbah North	$0.52	$0.73	$0.21	39%
Blair Athol	$0.75	$1.05	$0.30	39%
North Goonyella	$0.58	$0.81	$0.23	39%
Isaac Plains	$0.47	$0.65	$0.18	39%
Millennium	$0.44	$0.61	$0.17	.39%
Blackwater				
Jellinbah	$1.97	$1.10	($0.87)	(44%)
Curragh	$2.14	$1.19	($0.95)	(44%)
Cook	$2.20	$1.23	($0.97)	(44%)
Ensham	$2.37	$1.32	($1.05)	(44%)
Yongola	$2.60	$1.45	($1.15)	(44%)
Oaky Creek	$2.73	$1.52	($1.21)	(44%)

Source: QR Network data and calculations by the Authority.

While the sizes of these changes are not insignificant, the Authority finds it difficult to accept QR Network's arguments that they are so significant they could result in the stranding of the new investments in the Blackwater system's electric infrastructure.

As part of its submission for the pre-approval of the scope of the Blackwater electric system upgrades, QR Network argued that the investments in electric locomotives and in the Blackwater electric infrastructure were the most efficient option. Indeed, QR Network argued that these upgrades were necessary given the recent investment decisions by the above-rail train operators (QR Network, sub. no. 8: 6).

It seems incongruous that the investment could be efficient and needed, yet need to be combined with the Goonyella system asset base in order to lower the price effect of the investment. The Authority therefore does not accept QR Network's assertion that combining the tariffs is necessary for it to invest in the electric infrastructure in the Blackwater system.

Similarly, it is true that the heavier utilisation of the Goonyella electric assets tends to result in lower prices relative to the Blackwater system. This is also true for the track infrastructure but there is no proposal to amalgamate those non-electric assets.

QR Network has not made a convincing argument in support of its proposal to have a single Blackwater and Goonyella system AT_5 tariff. It is therefore proposed to reject QR Network's proposal. The Authority's required changes to the Blackwater and Goonyella AT_5 electric infrastructure tariffs are set out in chapter 1.

Decision 6.9

The Authority rejects QR Network's proposed amalgamation of the AT_5 electric infrastructure tariffs for the Blackwater and Goonyella systems and requires that the reference tariff sections of the Undertaking are amended accordingly.

6.11 Revenue Cap Incentives and Penalties

A revenue cap mechanism is intended to ensure that the owner of a regulated monopoly infrastructure asset will make a return on its capital base, and therefore have an incentive to invest in maintaining and expanding the asset. A revenue cap also transfers risk from the asset owner to users.

The Authority approved a revenue cap mechanism in June 2007. The new mechanism replaced the price cap which was used to govern tariffs in the 2001 and 2006 undertakings. The revenue cap:

(a) provided QR Network with certainty it could recover its regulated revenues in the event of volumes falling short of forecasts; and

(b) gave QR Network certainty that it would receive a return on capital expenditure that was approved by users and the Authority.

The Authority was concerned, though, that a revenue cap would limit incentives for better performance if it neither imposed penalties for breaches nor provided rewards for outperformance. Therefore, the Authority ensured the revenue cap mechanism retained some performance incentives by providing for:

(c) QR Network to retain 2% over the revenue cap limit if QR Network could demonstrate that higher-than-anticipated volumes were a result of activities associated with improving the performance of the whole of the coal supply chain; and

(d) QR Network to not fully recover its revenue cap in the event that there had been an under-recovery that was due to the track being unavailable due to QR Network's own negligence or default (subject to a materiality test).

The breach provisions were substantially the same as those already in the standard access agreements, but having them in the undertaking ensured QR Network could not use the revenue cap adjustment mechanism to recoup revenue that it was not entitled to earn under its access agreement because of breach or negligence. It also provided a method for access holders or other parties such as mines to present information to the Authority regarding potential breaches or negligence (QCA, May 2007: 6-7).

QR Network's proposal

QR Network proposed in its 2009 DAU to retain the revenue cap framework. It argued that:

(a) it should not bear material volume risk;

(b) it should have some incentive to maximise throughput, and face disincentives for actions which restrict throughput;

(c) 'any incentive framework should be clear, symmetric, readily understood, relatively simple to implement and proportionate to the contractual and non-contractual remedies already available for poor performance by QR Network'; and

(d) the revenue cap mechanism should discourage parties from gaming the system by making spurious claims (QR Network, sub. no. 6: 2).

QR Network said, however, that it wanted:

> *to reduce the uncertainty around the existing incentive framework which relies to a substantial extent on the QCA arbitrating on the extent of any upside and downside' (QR Network, sub. no. 6: 3).*

On that basis, it removed the upside and downside incentive clauses from the 2009 DAU. The deleted clauses providing for the 2% performance incentive were in clause 3B.2 of Schedule F, Part B of the 2008 undertaking, while the breach or negligence provisions were in clauses 3.3.7A to 3.3.7C of Schedule F, Part A. QR Network argued it would still be subject to incentives and penalties because:

(a) its AT_1 incremental maintenance allowance revenues remained outside of the revenue cap and were linked to volume changes; and

(b) it did not propose to alter an access holder's contractual rights to claim damages for breach of an access agreement, or for those damages to be adjusted against the revenue cap calculations (QR Network, sub. no. 6: 3).

Stakeholders' comments

The QRC said the risk and incentive arrangements in the 2008 undertaking were inadequate and QR Network's proposals in the 2009 DAU eliminated any residual risks and incentives. It said QR Network should be required to develop an alternative proposal.

> *If QR Network's proposal was to accept a greater degree of volume risk through AT_1 in return for the removal of the breach and negligence approach, we would expect to see a substantially larger proportion of QR Network's revenue recovered via AT_1. In fact,, while other components of the reference tariffs are proposed to increase by numbers such as 60% or more, QR Network proposes that AT_1 will reduce (QRC, sub no. 38: 51)*

The AT_1 tariff would only be an incentive if the revenue exceeded QR Network's variable costs over the regulatory period, the QRC said.

Authority's analysis and draft decision

The Authority has accepted revenue cap arrangements for the central Queensland coal region on the basis that they provide QR Network with greater certainty on cash flows. It was believed that this would create an environment that would encourage investment to expand the network.

In doing so, the Authority recognised that a revenue cap removes many of the incentives, including both risks and rewards, for a regulated business to continually improve performance and focus on customer needs. Therefore, when the Authority approved the introduction of a revenue cap mechanism in 2007, it ensured that there were incentives for QR Network to engage in activities to improve the efficiency of the coal supply chain and disincentives for pervasive breaches and negligence (QCA, May 2007: 6-8 and 22-24).

However, the Authority accepts that the mechanisms in the 2008 undertaking have some shortcomings, namely:

(a) the breach provisions in the 2008 undertaking apply if the breaches relate to 10% of the services covered by an access agreement. In practice, that threshold was unlikely ever to be breached, as almost all customers in central Queensland were covered by a single access agreement between QR Network and QR National; and

(b) the upward increment only rewards efforts by QR Network to improve the operation of the supply chain if volumes increase beyond forecast levels. QR Network could take measures to improve system performance, which might justify collecting more than the revenue cap, and not be able to benefit because causes beyond its control had reduced volumes.

The Authority does not believe that it is appropriate to have a form of regulation that removes performance-related rewards and downside incentives. Indeed, given the concerns about improving the performance of the whole of the coal supply chain, there are good reasons for strengthening, and not removing, the incentives for improved performance and the disincentives for poor performance.

The Authority has raised its concerns on this matter with QR Network both in its initial Issues Paper and on other occasions over the course of the Authority's consideration of the 2009 DAU. Stakeholders have also indicated their concern about the removal of the incentive and penalty arrangements from the revenue cap mechanism.

In response to this, QR Network has, effectively, proposed amending the arrangements in the 2008 undertaking by:

(a) changing the scope of the breach threshold from one based on 10% of train services in a month in an access agreement (one of which covers the overwhelming majority of QR National's task in the CQCR) to 10% of train services in a year in an individual system; and

(b) placing the onus on a non-QR Network party to demonstrate that QR Network is not entitled to a 2% upward increment if increased volumes have raised revenue above system allowable revenue.

When the Authority approved the existing breach and negligence threshold of 10% of train services in an access agreement in a month, it did so on the basis that it was seeking to include into the revenue cap mechanism what it then understood were the existing contractual terms. However, it was unaware at that time that the overwhelming majority of coal train services in central Queensland had been amalgamated into a single access agreement between QR Network and QR National.

This meant that the disincentive arrangement was largely ineffective as it would be very difficult for any single breach or act of negligence to be so significant to meet the materiality test. This was not the outcome the Authority was seeking to introduce into the revenue cap mechanism.

The Authority maintains its view that an effective disincentive regime is still required in the revenue cap mechanism. The Authority believes that the downside incentive arrangement should apply when there is a breach or negligent act that affects more than 10% of train services in an origin-destination pair over a year; that is:

(a) the current threshold of 10% of train cancellations should be retained;

(b) the link to an individual access agreement be replaced with a link to train cancellations in a Train Service (as defined in terms of an origin-destination pair); and

(c) the train cancellations in any one month should be relaxed to in any one year, as this would provide QR Network, access holders and customers with sufficient time and flexibility to ameliorate the effect of a breach or negligent act without invoking a downside incentive.

While the revenue cap mechanism already provides QR Network with an incentive to achieve cost savings through productivity improvements, the Authority also accepts that it is reasonable to provide it with an additional incentive to improve the operation of the coal supply chain. However, QR Network's proposed reinstatement of the 2% upward increment from the 2008 undertaking is deficient in two key respects.

First, it does not address the concern that QR Network may have undertaken actions that justify an upward increment, but is unable to benefit as volumes have declined for a cause out of its control.

Second, it places a reverse onus of proof on the Authority, or another party, to establish that QR Network is not entitled to the 2% increment. The existing arrangement places the onus of proof on QR Network to demonstrate that it has undertaken a course of action that can be shown to have improved the efficiency in the transport of coal across its network. This might involve QR Network initially establishing a business case for a particular course of action and an assessment of the success or otherwise of the program. This would create an incentive for QR Network to create the necessary paper trail in order for it to document and prove that its actions led to the improvement in throughput.

Establishing a reverse onus of proof not only removes this incentive, it would actually create an incentive for QR Network to maintain no records on its improvement activities. This is because if such documents were created, they could be accessed by the Authority and used to establish that these activities had no impact on improving the efficiency of the coal supply chain.

While the Authority believes that the existing incentive arrangement and QR Network's proposed alternative are both deficient, the Authority still believes that there is scope for including in the undertaking an incentive mechanism linked to the improvement of the whole of the coal chain. However, the Authority is not using this draft decision to set out the terms of what that incentive mechanism should look like. This is in part because the Authority understands that QR Network and other participants in the coal supply chain, in particular the Dalrymple Bay coal supply chain, have already undertaken some initiatives to improve the performance of the coal supply chain and the Authority has not yet had the benefit of understanding the outcomes of those processes.

Accordingly, the Authority believes it is sufficient for the undertaking to include a requirement that QR Network be given the first option to develop a workable incentive mechanism and, should QR Network be unable to do so, provide the Authority with the option of developing an incentive mechanism.

Decision 6.10

The Authority approves QR Network's proposal to have a revenue cap form of regulation in the 2009 DAU.

Decision 6.11

The Authority rejects QR Network's proposal to remove disincentives for breaches from the 2009 DAU. The downside consequences should be included, for breaches that result in the non-provision of 10% or more of the total number of Train Services for any single origin-destination pair during the relevant Year. The Authority therefore requires that QR Network amend clauses 3.2.3(d) and 3.2.5(c) of Schedule F, Part B of the 2009 DAU, as set out in appendix 6, to put this into effect.

Decision 6.12

The Authority requires that QR Network add a requirement that it develop an incentive mechanism, by adding the following clause 2.6 to part 2 of the undertaking:

2.6 Draft Incentive Mechanism

- **Following the Commencing Date, QR Network will consult with Access Holders, Access Seekers, their Customers, and any affected Infrastructure Service Providers, in relation to proposed amendments to revenue cap adjustment provisions in this Undertaking which would provide QR Network with an incentive to operate, and invest in, the Rail Infrastructure efficiently., and in a way that promotes efficiency of the whole of the coal supply chain.**

- **Within six (6) months after the Commencing Date, QR Network will submit to the QCA draft amendments to this Undertaking, which amend the revenue cap adjustment provisions to provide QR Network with an incentive operate, and invest in, the Rail Infrastructure efficiently (the Draft Incentive Mechanism Amendments).**

- **Clauses 2.4(c) to 2.4(m) apply to the Draft Incentive Mechanism Amendments in the same way as if a reference to the Draft SAAs and Consequential Amendments were a reference to the Draft Incentive Mechanism Amendments, subject to the fact that there is no requirement that the amendments are consistent with the provisions of this Undertaking (with all references to clause 2.4(b) being deemed to be references to 2.6(b)).**

6.12 Take-or-Pay

The access agreements include take-or-pay arrangements to encourage customers to contract for the capacity that they are most likely to need. In the absence of such arrangements, customers could over forecast demand and needlessly result in the construction of excess capacity – at a cost borne by all users.

However, as take-or-pay conditions are not uniform across all standard access agreements, there are varying incentives for QR Network and its customers.

QR Network's proposal

In its submission accompanying the 2009 DAU, QR Network said it wanted to align the take-or-pay provisions across all access agreements, but in a way that addressed concerns that had been expressed to it by the QRC. In particular, QR Network has proposed to:

(a) leave the take-or-pay arrangements in the 2009 DAU and associated access agreements the same as those in the 2008 undertaking;

(b) not re-open any existing access agreements to change the take-or-pay terms; and

(c) provide for any new access agreement signed after the start of the 2009 DAU regulatory period to have a 'reopener' clause that meant its take-or-pay provisions would be those in the approved undertaking that was current at the time they were applied.

QR Network indicated that, as a result, take-or-pay arrangements would align over time with the take-or-pay arrangements in any future approved undertaking (QR Network, sub. no. 6: 6).

Stakeholder Comment

In general, stakeholders favoured the changes to the take-or-pay provisions. The QRC said that QR Network's proposed approach had been developed in consultation with it and that the QRC:

> *... supports the proposed take or pay conditions of the 2009 Undertaking and suggests a clarifying amendment to confirm that take or pay for Access Agreements signed under this undertaking will be those set out in the approved undertaking from time to time (QRC, sub. no. 38: 45).*

QR Freight asked that the Authority consider changing the take-or-pay methodology to provide more flexibility for coal producers with multiple mines to transfer their commitments, for example by allowing access holders to reallocate capacity within a 'cluster' of agreed origins and destinations. 'In this case, exposure to Take or Pay may need to be based on whether the access holder has met the sum of its paths, rather than on a mine by mine basis (QR Freight, sub. no. 37: 28).

Authority's analysis and draft decision

On the basis that stakeholders have not objected to QR Network's proposed amendments, the Authority accepts the principle of aligning all central Queensland take-or-pay conditions with the terms set out in the access undertaking, as approved from time to time. In particular, the Authority notes that QR Network's proposal does not require reopening any existing contracts, and is consistent with the treatment of reference tariffs.

In proposing to accept the new take-or-pay provisions in the 2009 DAU, the Authority notes that there will have to be a consistent set of amendments in the standard access agreements, which have yet to be formally submitted to the Authority for approval.

The Authority also accepts QR Freight's argument that the take-or-pay arrangements should offer some flexibility in allowing a mining company to reallocate capacity within its portfolio of mines. QR Network has indicated it will address this issue. The Authority requires that QR Network include in the 2009 DAU provisions that allow such transfers of take-or-pay obligations, while protecting the interests of QR Network and other stakeholders.

Total Actual Revenue

When the Authority approved QR Network's revenue cap mechanism in 2007, it required QR Network to specify in the undertaking that its total actual revenue included any take-or-pay

amounts, relinquishment fees and transfer fees it was *entitled* to collect in the standard access agreements, regardless of whether it collected those amounts.

This specification of the entitled amount, rather than the amount actually collected, was to ensure that QR Network would bear the risk of any decision it made to contract on terms other than those in the SAAs. It also ensured that access holders would not be asked to underwrite more liberal take-or-pay arrangements included in a rival's access agreement (QCA, May 2007: 14-15).

QR Network has, in the 2009 DAU, revised and relocated the definition of total actual revenue, as part of its changes to the revenue adjustment process. The new clauses 3.2.3 and 3.2.5 of Part B, Schedule F do not include a reference to the revenue that QR Network is entitled to earn. The Authority therefore requires QR Network to amend clauses 3.2.3 and 3.2.5 to refer to the amount it 'was entitled to' earn, as set out in the revised clause 3 in appendix 6.

Decision 6.13

The Authority requires that QR Network provide the Authority with changes to the 2009 DAU that allow transfers of take-or-pay obligations within a mining company's portfolio of mines, while protecting the interests of QR Network and other stakeholders.

Decision 6.14

The Authority requires that QR Network amend clauses 3.2.3 and 3.2.5 of part B, schedule F, as set out in appendix 6, to specify that total actual revenue will be the amount QR Network is entitled to collect.

6.13 Review of Reference Tariffs

The revenue cap mechanism provides for QR Network's coal tariffs to be reset each year to reflect the under- or over-recovery of the allowable revenue that had been determined at the start of the undertaking period.

Since the introduction of this revenue capping mechanism, there have been some sizeable variances from the forecast volumes which has meant that there have also been some sizeable under-recoveries of revenue. For instance, for 2007-08 and 2008-09, there were revenue shortfalls of around $45 million and $27 million respectively (these equate to more than 5% of the ARR). QR Network has also experienced significant cost over-runs relative to forecast, in particular in relation to maintenance costs.

In the 2009 DAU, QR Network is seeking to limit the size of these under-recoveries.

Regulated revenues and tariffs will still be based on forecast volumes and costs and approved when the undertaking is approved. However, QR Network is proposing that volumes and certain cost elements be reforecast in February each year and that revenues and tariffs be reset for the following financial year. Upon the completion of that financial year, revenues and certain of the forecasts will be reconciled with actuals to determine the level of revenue under- or over-recovery which would then be used to adjust future tariffs.

These new measures have the effect of reducing QR Network's cash flow risks and moving the regulatory arrangements away from an incentive framework and towards a cost-of-service approach.

It is also an approach that will increasingly involve the Authority in making regulatory decisions during the term of the undertaking, a factor that QR Ltd has previously complained adds to its regulatory burden and reduces its flexibility.

In considering these risk mitigation measures, the Authority has sought to ensure that the mechanisms are as simple and as transparent as possible and limit the exercise of discretion by both QR Network and the Authority. The Authority has also adopted as a guiding principle that the party best able to manage a risk should actually bear that risk. The Authority has applied that principle to access conditions, as discussed in section 6.5 of this chapter.

This section assesses the overall process that QR Network is proposing for the ex-ante and ex-post reviews. The following sections examine the specific details associated with the volume and cost adjustments.

QR Network's proposal

QR Network said it wanted to reduce the scale of revenue cap shortfalls, and the resulting year-on-year fluctuations in tariffs, by reviewing the volume forecasts each year, and using the updated numbers to adjust the tariffs and system allowable revenue amounts for the remaining years of the undertaking period.

In addition to these volume forecasting issues, QR Network said it has faced difficulty in making accurate forecasts of maintenance costs during the 2008 undertaking period.

> *Variations in actual maintenance cost compared to forecast have lead to QR Network incurring substantial cost overruns, resulting in an amendment to UT2 to recover some of this shortfall. The remainder of this shortfall is being absorbed by QR Network during the UT2 regulatory period (QR Network, sub no. 5: 2).*

Therefore, it proposed several measures in the 2009 DAU to adjust its system allowable revenue, both in advance of the year the tariffs are levied, and as part of the ex-post revenue cap reset process.

The proposed ex-ante adjustments to system allowable revenues and reference tariffs (clause 3.1 of part B, schedule F) include:

(a) updating volume forecasts (section 6.14);

(b) adjusting maintenance costs for:

  (i) the difference between forecast and actual MCI for previous years (section 6.15);

  (ii) the forecast cost of maintaining spur lines that have been built since the undertaking was approved (section 6.16);

(c) adjusting operating costs for:

  (i) the difference between forecast and actual CPI;

  (ii) the difference between the forecast and the actual annual fee for connecting to new electrical feeder stations (section 6.16);

(d) changing the forecast cost of energy for electric traction locomotives (section 6.16); and

(e) a one-off adjustment for the difference between the forecast and finalised balance of the Capital Expenditure Carryover Account (section 10.2).

The proposed ex-post adjustments to system allowable revenue (clause 3.2 of Part B, schedule F) include:

(a) readjusting system allowable revenues to take account of actual movements in the MCI for maintenance costs and CPI for operating costs; and

(b) calculating the amount of any over- or under-recovery of actual revenue with reference to the readjusted system allowable revenues (as derived in step (a) above); and

(c) adding (subtracting) the resultant under- (over-) recovery of revenue to the system allowable revenues in two years' time.

Stakeholders' comments

Stakeholders supported the overall concept of the annual reset of system allowable revenue, with reservations about specific aspects of the process.

The QRC provided in-principle support for the use of an MCI, but said that this was subject to specific details on how it is derived. The QRC also encouraged the Authority to ensure that QR Network's methodology for escalating MCI and CPI did not result in any double-counting through its interaction with other mechanisms including the asset roll-forward, the inflation estimate in the WACC, and the inflationary gain deduction. The QRC also noted that:

> *... this proposal, particularly in combination with a range of other proposals, seeks to reduce QR Network's risks in regard to maintenance costs and other operating costs. (QRC, sub. no. 38: 46)*

QR Freight sought clarification on how the 2009 DAU tariffs would take into account revenue cap adjustments from the 2007-08 and 2008-09 tariff years, and the effect of major capital expansions. It asked whether these 'subsequent reference tariff changes [will] be managed via the proposed annual review or will they be allowed to occur at any time through the year?' (QR Freight, sub. no. 37: 27).

Asciano suggested changing to an annual pricing process, as used by ARTC in the Hunter Valley, instead of the whole-of-term pricing used by QR Network.

> *Asciano believes that the whole of term pricing in UT3 coupled with significant annual revisions does not provide any certainty to access seekers while at the same time adding complexity to the undertaking. Any stability in pricing that arose under the price cap regulation with whole of term pricing has evaporated under the revenue cap regulation.*
>
> *In place of the pretence of whole of term pricing, Asciano strongly prefers a genuine annual price setting process (Asciano, sub. no. 33: 39).*

Authority's analysis and draft decision

As previously noted, the Authority supports the principle of reducing the volatility in the charges paid by access holders and their customers. However, it is also keen to avoid unnecessary complexity in the review process.

QR Network's proposal contains a variety of measures that seek to adjust the system allowable revenue and tariffs *before* the year to which they apply, in order to reduce the requirement for an ex-post adjustment that changes tariffs in future years.

The specifics of the indices and cost allowances proposed by QR Network are discussed in sections 6.14 to 6.16. In general, the Authority proposes to approve most of those annual review measures, but is seeking to simplify the process so that, where possible, only one adjustment is made to the system allowable revenues once actual information is known.

With this in mind, the Authority considers that QR Network should use the ex-ante annual review process only to reset tariffs based on revised volume forecasts for that year. This will ensure that large revenue cap variations caused by volume variances, such as the ones experienced in the past, will be greatly reduced.

The Authority does not consider it appropriate to update other aspects of the system allowable revenue through the ex-ante annual reset process. There appears to be little benefit in the 2009 DAU forecasts being updated prior to the start of the following year – only to be amended again at the end of the year via the revenue cap adjustment process once actual data becomes available.

As a result, the Authority proposes amending the treatment of the new spur maintenance costs, the electric energy costs, and the electrical feeder station costs so that they are adjusted once, at the end of each year, to reflect the difference between forecasts made in the undertaking, and actual costs incurred during the year (i.e. as part of the revenue cap adjustment process discussed in sections 6.13 to 6.16).

While this will have some cash flow implications, it will still be NPV neutral for QR Network. The Authority also notes that the amended mechanism does provide some protection from large divergences during the term of the undertaking between forecast CPI and the actual CPI and MCI. This is because, when the revenue cap adjustment is calculated based on the difference between the actual MCI and CPI and the forecast CPI used in the tariff model, the following years' revenue caps will also be adjusted to reflect that difference. The relevant clause is 3.3.1(b) in Schedule F, Part B, as shown in appendix 6.

The Authority notes Asciano's comments that it would be preferable to have tariffs that were reset each year. In this regard, the Authority considers that the proposed annual review process, in conjunction with a revenue cap process, is not too far removed from this approach. Under these arrangements, reference tariffs will be amended annually and biennially to reflect up-to-date information on volume forecasts, certain costs elements and parameters.

It is also noted that, to date, the undertakings have provided for the quarterly indexation of reference tariffs based on the latest CPI figures. In contrast, the 2009 DAU has proposed to set tariffs annually, with no quarterly indexation.

In considering this matter, the Authority has confirmed that the tariffs have been calculated such that QR Network's costs and revenues are NPV equivalent.

As this proposal also simplifies the calculation of tariffs, the Authority proposes to approve the change from quarterly to annual indexation of reference tariffs.

Decision 6.15

The Authority rejects QR Network's proposed annual review process for the reasons stated above. The Authority requires QR Network to amend it so that it can only reset the reference tariffs prior to the beginning of each year on the basis of revised volume forecasts (the Authority's revised drafting of this is provided in Appendix 6).

Decision 6.16

The Authority accepts QR Network's proposal to have annual reference tariffs, rather than reference tariffs that are escalated by CPI each quarter.

Non-reference Tariffs

The 2008 undertaking includes a requirement that all access charges for central Queensland coal-carrying services, including those that are not reference train services, must be calculated by reference to the same components, including the AT_1 to AT_5 tariffs, and the EC charge, that are used for reference train services.

QR Network has moved that provision from clause 3.5.1 of Schedule F, Part A in the 2008 undertaking to a new clause 4.3 of schedule F, Part B in the 2009 DAU. It has also substantially redrafted the clause to give more detail. In doing so, it has specified that the requirement does not apply for a cross-system train service.

The Authority does not accept that a cross-system train service should be exempt from this requirement. The principle of using the tariff structure for a single-system reference train to calculate the tariff for a cross-system service has already been applied in the Lake Vermont tariff that the Authority approved in October 2009.

The Authority therefore requires that QR Network amend clause 4.3 of schedule F, Part B to remove the exclusion of cross-system train services.

Decision 6.17

The Authority requires that QR Network amend clause 4.3 of Schedule F, Part B as follows:

4.3 Access Charges where Reference Tariffs do not apply:

Unless approved by the QCA, for all ~~where a~~ coal carrying Train Service<u>s</u> in the Central Queensland Coal Region ~~is~~ <u>which are:</u>

2. **not a Reference Train Service due to ~~it~~ not complying with Clause 1.2 of Part A~~, and is not~~<u>; or:</u>**

3. **a Cross System Train Service,**

QR Network must calculate the Access Charges by reference to:

(with (a)-(g) renumbered as (c)-(i) accordingly)

6.14 Annual Updates of Volume Forecasts

As indicated above, QR Network wants to revisit its volume forecasts annually. In support of this proposal, QR Network stated that:

> *Stakeholders have provided broad support for an annual reset of volume forecasts, and have not objected to the associated implications for variations in maintenance costs, provided that a mechanistic approach is applied. QR proposes to address this issue by including aligning this process with the existing variation provisions in Clause 3 [of schedule F, Part A] (QR Network, sub. no. 5: 4).*

The volume revision and associated tariff adjustment would be conducted in conjunction with the annual reset of tariffs, which is discussed in section 6.13.

The QRC, Asciano, QR Freight and Stanwell all favoured the annual review of volume forecasts. The QRC stated that it:

> *... supports the annual resetting of tariffs based on revised volumes and considers that this is important in order to reduce the likely size of revenue cap unders and overs (QRC, sub. no. 38: 45).*

Asciano supported the annual volume revisions as part of a broader case for an annual tariff-setting process (Asciano, sub. no. 33: 39). Stanwell favoured the 'objective of reducing the "shock" of unders and overs, which would potentially be an out of budget cost' (Stanwell, sub. no. 42: 4).

QR Freight indicated it:

> *... strongly supports the annual volume setting mechanism as longer term forecasts embed inaccuracies in annual tariffs and distort risk allocations amongst supply chain participants (QR Freight, sub. no. 37: 28).*

QR Freight added that the volume reset process would avoid the compounding of revenue shortfalls that resulted from major revenue cap adjustments.

The Authority accepts that reducing volatility in the reference tariffs will provide benefits to a broad cross-section of stakeholders.

The volume reset proposed by QR Network in the 2009 DAU has the potential to reduce the variance between forecast and actual volumes. This will be particularly true for the later years of the undertaking, when predictions made at the start of the regulatory period will be most out of date. Specific issues with the volume forecasts that form part of the 2009 DAU are discussed in chapter 1.

QR Network has proposed to implement the volume reset through a mechanism which forms part of the annual tariff reset, as described in sections 6.13 to 6.16. This makes administration of the volume reset process relatively simple, and gives stakeholders an opportunity to comment on the revised forecasts. Stakeholders have said they support the volume reset, as it should reduce the size of required revenue adjustments.

The Authority therefore approves QR Network's proposal to revise the volume forecasts as part of the process of setting each year's tariff.

6.15 Maintenance Cost Index

Maintenance costs are an important building block component of the annual revenue requirement (ARR) and reference tariffs. Maintenance costs are, in effect, included in the modelling at their real value and, as tariffs are escalated by the forecast CPI over the course of the regulatory period, maintenance costs are also escalated by the forecast CPI.

Over the course of the 2006 and 2008 undertakings, QR Network has persistently over-spent its forecast maintenance costs. This was in part because QR Network under-estimated the cost of the maintenance task and partly because unit maintenance costs were increasing at a faster rate than the CPI. QR Network ameliorated part of this under-recovery through a DAAU in 2007 that increased maintenance costs by around 25%.

As part of the 2009 DAU, QR Network has sought to increase maintenance costs by a further 60% and to index maintenance costs not by CPI but by a specially constructed index that, it says, better reflects input price changes in central Queensland. Operating costs, including system-wide and regional costs, will continue to be indexed by the CPI.

QR Network's proposal

QR Network argued that CPI did not adequately reflect fluctuations in unit maintenance costs in central Queensland. It therefore proposed that the maintenance costs in its system allowable revenue be indexed with a more relevant index.

This maintenance cost index (MCI) would be derived from publicly available data on the movements in prices of the main components of QR Network's central Queensland maintenance costs. These costs include fuel, accommodation, consumables, labour and other expenses. The index does not include a component for plant maintenance, which accounts for 11.6% of QR Network's forecast maintenance costs during the undertaking period. Instead, QR Network has split the allocation for plant maintenance equally between the labour and consumables categories, reflecting the composition of forecast plant maintenance costs. QR Network said the components of the index were all based on externally sourced and verifiable information (QR Network, sub. no. 5: 5-7). QR Network's proposed weightings are shown below in Table 6.3.

Stakeholders' comments

Stakeholders' views on the MCI were mixed. The QRC said the mining industry was not opposed to the development of an MCI, although the index as proposed needed to be subject to review by an independent consultant. In particular, QR Network had not explained the basis for the weighting of the five parts of the index, or shown how it would be used to measure efficiency gains. The QRC also questioned whether the index should be applied to all of QR Network's maintenance costs, including margins paid to related party QR Services (QRC, sub. no. 38: 46-48.)

Asciano said QR Network had not demonstrated that the MCI was a better measure than CPI of the variation in its costs over time. QR Network also had not shown how the MCI would vary as the scope of maintenance changed, or how it would be calculated and applied. Asciano said that, with both the MCI and the revenue cap review, if maintenance scope changes increased costs more than 2.5%, QR Network was 'having things both ways' (Asciano, sub. no. 33: 40-42).

Authority's analysis and draft decision

The revenue cap provides for QR Network to recover its efficient costs, and have its cash flows protected from the effects of certain factors beyond its control. QR Network's proposed MCI adds to those protections.

The Authority does not believe that the proposal to escalate costs by an index other than CPI is extraordinary. However, the application of the principle in the form of the MCI proposed by QR Network raises a number of issues, namely:

(a) whether the construction of the MCI is reasonable and subject to an appropriate and regular review process;

(b) whether QR Network has applied an appropriate methodology to estimating the MCI;

(c) whether the MCI provides QR Network with a sufficient incentive to achieve efficiency gains; and

(d) how the MCI is applied in practice in the cost buildup of the central Queensland coal reference tariffs.

The MCI is a weighted average of indices reflective of a number of components of QR Network's maintenance costs.

The Authority believes that the proposed construction of the MCI is reasonable to the extent that the component indices are collated by third parties and are therefore not subject to manipulation by QR Network. Moreover, these component indices are transparent as they are either based on ABS data or on publicly available fuel price estimates.

However, the Authority has concerns about the proposed weightings as they do not accurately reflect the composition of QR Network's maintenance costs. Therefore, there remains the possibility that the MCI will not provide an accurate reflection of the cost fluctuations faced by QR Network.

The main difference between the weightings in QR Network's actual maintenance costs and the MCI is that the proposed index does not reflect the fact that more than 15% of the maintenance cost forecast comes from asset charges for capital equipment, which should remain fixed once the asset has been acquired.

After the Authority raised these concerns, QR Network indicated it would amend the MCI by adjusting the weightings, composition and application of the MCI components. The proposed changes included adding a 15.9% weighting for asset charges, which would be indexed using a component that remained at 100 through the term of the undertaking (QR Network, August 2009).

The Authority retained GHD, the same consultancy firm which reviewed QR Network's central Queensland maintenance and operating costs, to review the proposed construction and operation of the MCI. GHD said that the weightings and sub-indices used by QR Network were reasonable. However, it said that QR Network's forecasts of the index were 'somewhat speculative' and the MCI adjustments should occur after the event (GHD, November 2009: 5).

The Authority therefore requires that the index weightings in the 2009 DAU submission be changed to reflect the composition of actual central Queensland maintenance costs, as applied in QR Network's revised proposal (QR Network, August 2009: 7). The required weightings and underlying indices are set out in Table 6.3.

Table 6.3: Revised Maintenance Cost Index Weightings

Factor	*Original Weight*	*Revised Weight*	*Data Sources for Revised MCI*
Fuel	*5%*	3.2%	AAA Pricing Summary Unleaded Petrol (Emerald 20% of index component, Gladstone 20% and Mackay 20%); AIP Terminal Gate Prices Historical Averages Brisbane, Unleaded (20%) and Diesel (20%)
Accommodation	*3%*	1.5%	Hotels, Motels and Serviced Apartments by Tourism Region QLD (Fitzroy and Mackay District – ABS 8635.3.55.001, 5).
Consumables	*32%*	34.9%	Non-Building Construction (18% of index component – ABS 6427.0, 15-16); Basic Metal Products (18% – ABS 6427.0, 10-11); Transport Equipment & Parts (18% –6427.0, 10-11); Fabricated Metal Products (18% –6427.0, 10-11); Consumer Price Index (28% – ABS Brisbane 6401, Table 5).
Labour	*45%*	44.5%	Queensland All Industries (33% – Total Hourly Rates of Pay Excluding Bonuses: All Sectors by State, ABS 6345, 2a); Mining, Private and Public, All occupations, and Construction, Private, All occupations (each 33% – Total Hourly Rates of Pay Excluding Bonuses: Sector by Industry, ABS 6345, 5a)
Assets	—	15.9%	Index component remains unchanged at 100.
Consumer Price Index	*15%*	—	

Source: QR Network

The historic performance of the revised index and its components is shown in Table 6.4.

Table 6.4: Revised MCI History and Forecasts

	Year Ending June	Fuel	Accom-modation	Consumables	Labour	Asset	Weighted Average
Actual	2006	140.8	115.0	121.6	113.1	100	115
	2007	140.4	126.9	127.3	118.9	100	120
	2008	156.3	144.0	128.9	124.7	100	124
	2009	146.1	149.7	127.6	130.6	100	125
Forecast	2010	160.8	159.3	131.9	134.1	100	129.1
	2011	176.8	169.5	137.0	138.5	100	133.6
	2012	194.6	179.8	142.3	143.2	100	138.2
	2013	214.1	191.4	147.2	147.9	100	142.9

Source: QR Network.

A difficulty with relying on a conglomeration of indices as proposed by QR Network is that one or more of the indices may cease to be calculated by the relevant entities. To the extent that any of the indices being relied on ceases to exist, the Authority requires that that component will then revert to being escalated by CPI. If QR Network considers that produces a significant discrepancy between its changes in maintenance costs and the rate of escalation, it will, of course, be open for QR Network to submit a DAAU seeking to remedy that discrepancy.

The Authority proposes to review the effect of the weightings, and of the application of the MCI, after the 2011-12 financial year. At that time, the Authority is likely to seek comment on the effect of the index, as a precursor to its consideration of whether the MCI should be retained in the next undertaking and, if so, in what form. To supplement consideration of the operation of the MCI adjustments over the term of this undertaking, the Authority is also requiring inclusion of details regarding the MCI to be inserted in the public maintenance cost report published in accordance with clause 9.2.3 of the 2009 DAU (as set out in decision 9.2).

The Authority is also concerned about the manner in which QR Network has proposed to implement the MCI. In this regard, the Authority believes that the MCI arrangements proposed by QR Network are administratively complex and internally inconsistent –so much so, that the Authority could not approve them in the form submitted.

Key aspects of QR Network's proposal are that:

(a) a forecast of the MCI would be used to develop the revenues and tariffs approved in the 2009 DAU;

(b) the MCI would be reforecast in February each year, based on actual changes in index components since the original forecast, to derive a revised set of tariffs and revenues for the following financial year; and

(c) the actual MCI would be calculated at the end of each financial year and be used to assess the amount of any revenue under- or over-recovery.

However, the tariffs included in the 2009 DAU have not been derived on the basis of the forecast MCI. Rather, the maintenance cost forecasts submitted by QR Network have been indexed by line item using a number of escalation factors that are different to the MCI. The Authority has sought to resolve this matter by working with its consultant, GHD, and QR Network to derive a set of real (i.e. not nominal) maintenance cost forecasts that are amenable to indexation by the MCI (see section 1.10 for further details).

The Authority is also concerned about the administrative complexity of developing a forecast for the MCI and then revising this forecast twice for each year of the regulatory period. The Authority believes that the MCI indexation of maintenance costs can be implemented through a simpler process with less onerous regulatory oversight. In particular, the tariff and revenues in the 2009 DAU should be developed on the basis of the best available forecast of the CPI, which is more readily available than is a forecast of the MCI. Regulated tariffs and revenues could then be adjusted by the difference between the estimated CPI and the actual MCI as part of the revenue cap review process which occurs in September of each year, when the actual MCI for the previous year is known.

This approach will not affect the NPV of the revenues earned by QR Network, although it will have an impact on the timing of those cash flows (see discussion in section 6.13).

Further, the MCI needs to give QR Network an incentive to achieve efficiency gains. Therefore, the application of the MCI will need to include a mechanism to reflect productivity gains through an 'index-minus-X' calculation (see section 1.11 for further details).

Decision 6.18

The Authority rejects QR Network's proposed maintenance cost index, as it does not reflect the actual composition of central Queensland maintenance costs.

The Authority requires that QR Network amend the construction of the maintenance cost index (and definition of the MCI in the 2009 DAU) so that the weightings and underlying data are as set out in Table 6.3 and, to the extent that one of the indices being relied upon ceases to be calculated, that that proportion of the maintenance cost index reverts to being escalated on the basis of CPI.

Decision 6.19

The Authority requires that QR Network amend the 2009 DAU to require QR Network to publish on its website the MCI, and to provide for a review of the construction and application of the MCI after the 2011-12 financial year, by inserting the following new clause 6.4.4:

> **QR Network must, in conjunction with its revenue cap review submission after the 2011-12 financial year, submit an analysis comparing the movements of the MCI (used to calculate Reference Tariffs) with the movements in its actual maintenance costs in the Central Queensland Coal Region.**

Decision 6.20

The Authority requires that QR Network apply the MCI in arrears, as an adjustment to forecast maintenance costs that have been escalated by forecast CPI, as provided in the amendments to clause 3.2.2 of Schedule F, Part B, which are set out in appendix 6.

6.16 New Spurs, Electrical Feeder Stations and Electricity Charges

The annual review mechanism proposed by QR Network in its 2009 DAU includes ex-ante adjustments to update the forecast of the:

(a) cost of maintaining new spurs;

(b) annual fees for connections to electrical feeder stations; and

(c) cost of buying electricity for supply to electric locomotives.

QR Network indicated its current undertaking did not include any allowance for the cost of maintaining new branch lines or spurs completed during the undertaking period. Therefore, it proposed in the 2009 DAU that the maintenance for any new spurs be taken into account as part of the annual review of reference tariffs. QR Network said the cost of maintaining those new lines should be included in the system allowable revenue at an annual rate of $25,000 a kilometre. That rate was based on estimates of the cost of maintaining the 17-kilometre Lake Vermont spur line.

The QRC said it had insufficient information to comment on whether QR Network's proposed maintenance allowance for new spurs was appropriate (QRC, sub. no.38: 49).

The Authority's consultant, GHD, reviewed QR Network's proposal, including additional information on its derivation of $25,000-a-kilometre allowance. In particular, QR Network provided a list of maintenance activities required in the first three years of a branch line's operation (eg inspections, testing, rail grinding and resurfacing) (QR Network, April 2009(b)).

GHD indicated QR Network had included several activities which should be included as part of the capital expenditure on a new branch line as these were actions that are required prior to the commissioning of a new line (eg the first rail grinding and track resurfacing) (GHD, 14 March 2009). The subsequent performance of these activities would be treated as maintenance costs.

GHD also said that QR Network was wrong to use average maintenance costs across its network to estimate costs for new spurs, as this did not take into account the asset condition of the new infrastructure. GHD said a more appropriate annual allowance for maintenance on new spurs was $15,000 a kilometre.

In considering this matter, the Authority notes that there is some uncertainty surrounding the proposed maintenance costs for new spurs. In addition, the annual revenue cap review will include a review of aspects of maintenance costs.

Given this, the Authority believes that an alternate treatment of this new spur maintenance cost issue would be to also include it as part of the annual revenue cap review. Therefore, the Authority requires that the process for calculating an approximate cost for maintaining new spur lines be removed from the 2009 DAU by deleting the proposed clause 3.1.2(a)(ii) of schedule F, Part B.

Instead, the Authority requires that QR Network add clause 3.2.2(a)(i) and (ii), as set out in appendix 6, so that the actual efficient costs of new branch lines are included in the revenue adjustment amount.

Electrical Feeder Station Costs and Electric Energy Tariff

The issues relating to the treatment of new spurs in the revenue cap are similar to those for the costs of connecting electrical feeder stations, and for the electric energy (EC) tariff. In each case, QR Network has proposed adjusting the next year's tariff based on a revised cost forecast. For the EC tariff, QR Network has proposed that it receive a premium to compensate for risks that electricity supply costs will exceed its forecasts.

The Authority considers that it is more appropriate to adjust for actual costs in arrears, as part of the revenue cap unders and overs process. This will be more simple to administer, and protects QR Network from the risks that it proposed to offset with the premium on electricity supply costs.

The Authority therefore requires QR Network to change its proposed treatment of forecast and actual costs for connecting electrical feeder stations and supplying electric energy (QR Network, sub. no. 5: 8, and sub. no. 8: 3-5). To do this, QR Network must delete clauses 3.1.2(d) and 3.1.1(b)(ii) of schedule F, Part B in the 2009 DAU, and add clause 3.2.2(b) as set out in appendix 6.

Decision 6.21

The Authority rejects QR Network's proposal to include costs for maintaining new spurs, operating new electrical feeder stations and supplying electric energy in its annual review process. It also rejects QR Network's proposals to apply a premium to its electricity supply costs when deriving the EC tariff, and to apply a forecast cost of $25,000 a kilometre to the maintenance of new branch lines. The Authority therefore requires QR Network to change the treatment of these costs to be part of the revenue adjustment process by amending clause 3 of part B, Schedule F as set out in appendix 6 to:

- **delete 3.1.2(a)(ii) and 3.1.2(d); and**
- **add 3.2.2(a)(i) and (ii), and 3.2.2(b).**

6.17 Review Event for Maintenance Scope Change

QR Network said it may need to change its maintenance practices 'to facilitate efficient expansion of the supply chain' (QR Network, sub no. 5: 7-8). QR Network wanted to be able to change the system allowable revenue where this change in maintenance practices resulted in a material change in its maintenance costs. This would be subject to a minimum threshold of a 2.5% change in the AT_3, AT_4 and/or AT_5 tariff components.

QR Network has proposed that this change would be implemented as an endorsed variation event (QR Network, sub. no. 25: 91) which, in other cases, is related to changes in factors which are beyond QR Network's control (eg changes in taxes, laws and in electricity retail prices).

The QRC argued against introducing using maintenance scope change as an endorsed variation event. It said the test for an endorsed variation event was relatively easy to satisfy and did not subject the change to consultation or to due process. The QRC believed that QR Network should rely on the existing DAAU process to seek a change in the revenue cap to reflect a change in the scope of maintenance activities.

In response to stakeholder comments, QR Network indicated it is willing to accept not relying on an endorsed variation event but that it wanted more certainty than provided by a DAAU. In particular, it indicated that a DAAU process did 'not provide QR Network certainty that a cost pass-through would be permissible in the absence of an explicit provision in the undertaking' (QR Network, April 2009(a)).

As a result, QR Network has suggested that the review event mechanism be re-instated into Schedule F of the undertaking and that material changes in the scope of maintenance works be included as a review event. The Authority believes that it is reasonable that QR Network be compensated for changes to its maintenance practices that improve the operation of the coal supply chain.

The Authority also believes that the proposed treatment of a maintenance scope change as a review event addresses concerns that an endorsed variation event does not provide sufficient opportunity for public consultation and review by the Authority. In particular, the treatment of a review event differs from the treatment of an endorsed variation event in two specific ways, as a review event requires:

(a) both QR Network and the Authority to agree that there has been a material change in circumstances that gives rise to the need to increase reference tariffs; and

(b) the Authority to publish and take into account stakeholders' comments.

On that basis, the Authority approves the proposed inclusion of a maintenance scope change provision, and the retention of review events in the undertaking. The appropriate clauses are set out in decision 6.22.

Catastrophe-related costs and self-insurance

Since submitting the 2009 DAU, QR Network has advised the Authority that it omitted to provide any mechanism for applying for a pass-through of uninsured costs relating to a catastrophic event such as an earthquake or major storm. As discussed in section 1.9, it has now proposed to add a review event to allow it to apply for such a pass-through.

The Authority has also required that QR Network demonstrate that it has established a self-insurance function before it will approve a 10% allowance for self-insurance administration costs (see section 1.9). The Authority has therefore proposed a review event for QR Network to demonstrate it has completed setting up the self-insurance function, if done so prior to 31 December 2010.

The required clauses for both these review events are set out in the 'Review Event' definition in decision 6.22

Decision 6.22

The Authority requires QR Network to reinstate a review event provision in the 2009 DAU by inserting the following clauses in Schedule F, Part A, 2.2 (with the existing 2.2.7-2.1.12 in the 2009 DAU being renumbered to 2.2.8-2.2.13 accordingly):

2.2.1 QR Network:

- **may submit a variation of a Reference Tariff to the QCA, where QR Network considers that the variation will promote efficient investment by either QR Network or another person in the coal transport supply chain; or**

- **will submit a variation of a Reference Tariff to the QCA, subject to Clause 2.2.3:**

  (i) **within sixty (60) days of:**

  A. QR Network becoming aware that an Endorsed Variation Event has occurred or a Review Event has occurred or will occur;

  B. a written notice being given to QR Network by the QCA in accordance with Clause 2.2.2; or

2.2.2 ... [clauses 2.2.2 to 2.2.6 remain as submitted by QR Network in the 2009 DAU]

2.2.7 If QR Network submits a variation of a Reference Tariff in accordance with Clause 2.2.1(b)(i) in relation to a Review Event:

- **the variation must:**

  (i) **nominate the Reference Tariff to be varied;**

  (ii) **include evidence that the Review Event has occurred or will occur; and**

  (iii) **include details of the methodology, data and assumptions used to vary the Reference Tariff;**

- **the QCA will publish details of QR Network's proposed variation of the relevant Reference Tariff and invite and consider comments from stakeholders regarding the proposed variation; and**

- **the QCA may approve the proposed variation of the relevant Reference Tariff if the QCA is satisfied that:**

  (i) **the Review Event has occurred or will occur; and**

  (ii) **the variation of the relevant Reference Tariff:**

  A. is consistent with the change in the cost resulting from or that will result from the Review Event;

  B. reflects the impact of the relevant Review Event on the financial position of QR Network (including the impact of incremental maintenance and incremental capital costs); and

  (iii) **has been calculated as if all other Reference Tariffs were also being recalculated due to the occurrence causing or that will cause the Review Event.**

and adding the following definition of a 'Review Event' in part 11:

"Review Event" means:

- **a change in QR Network's maintenance practices, reasonably requested by an Access Holder or Customer (or proposed by QR Network) subsequent to the Commencing Date, which has caused, or will cause a change in the costs reflected in:**

  (i) **for Reference Tariffs specified in Part B of Schedule F, the AT3, AT4 and/or AT5 components of the relevant Reference Tariff; and**

  (ii) **for Reference Tariffs specified in Part C of Schedule F, the AT1 component of the relevant Reference Tariff,**

  of greater than two and a half percentage points (2.5%) excluding the impact of:

  (i) **any change in maintenance practices that have previously resulted in a variation of the Reference Tariff since the Commencing Date; or**

  (ii) **any adjustment to the Reference Tariff to reflect changes in the MCI;**

- **a Force Majeure Event of the types set out in paragraphs (v) and (xii) of that definition affecting QR Network to the extent that QR Network has incurred or will incur additional costs of greater than $1 million that have not previously resulted in a variation of the relevant Reference Tariff; or**

- **the implementation of a self-insurance function for QR Network, by no later than 31 December 2010, which must include:**

  (i) **a resolution by QR Network's board of directors resolving which events are being self-insured and acknowledging that it is considered that QR Network will have sufficient financial capacity to assume such self-insured risks;**

  (ii) **operation of an appropriate claims management system and implementation of other procedures to ensure that full and accurate costs of any self-insured losses are identified and claimed by QR Network;**

  (iii) **varying accounting systems to establish a self-insurance fund and separate expense items for self-insurance;**

  (iv) **expanding the current claims management team to provide sufficient capacity to assess and manage additional claims against self-insured risks including the pursuit of recovery against third parties (including QR Parties) where appropriate;**

  (v) **establishing any other appropriate policies, processes and procedures for the management of claims against self-insured risks; and**

  (vi) **either demonstrating to the QCA that self-insured losses would not be otherwise recovered through revenue recovery provided for by this Undertaking, or submitting a draft amending access undertaking to remove the potential for any such recovery; or**

- **any other material change in circumstances that QR Network can reasonably demonstrate gives rise to a need to vary the relevant Reference Tariff,**

in respect of which QR Network has given written notice to the QCA of QR Network's intention to propose a variation to that Reference Tariff under Clause 2.2, Part A of Schedule F.

6.18 Variations to Reference Train Service

The 2008 undertaking provides for reference tariffs to be levied on a reference train where the reference train is defined in terms of a number of characteristics including: origin and destination; maximum axle load and train length; and time taken to complete the journey over defined track sections.

For a non-reference train service, the undertaking provides for QR Network to vary the reference tariff depending on the cost or risk to QR Network of operating the non-reference train in comparison to the reference train.

Experience has shown that the number of train paths in a system is maximised when all the trains operate at consistent speeds. For example, a new, non-standard service, whether it is faster or slower, will consume more train paths than a new service operating at the same speed as the existing traffic.

The 2008 undertaking includes a rule that the AT_2 reference tariff component will be varied for trains that are slower or faster than the predominant train on the relevant system to signal that a non-standard train consumes more train paths than a standard train. Specifically, the AT_2 reference tariff component is to be multiplied by the reference train path (rtp) multiplier, defined as:

$$\text{rtp} = \frac{\text{maximum number of Reference Train Services at full utilisation}}{\text{maximum number of proposed Train Services at full utilisation}}$$

Defined in this way, the rtp multiplier provides a discount for a faster train and a surcharge for a slower train. However, in practice, the increase in the consumption of train paths occurs for all trains that travel at speeds that differ from the predominant train, irrespective of whether that is a faster or slower speed. A more correct version of the rtp multiplier would provide for a surcharge for trains that are either faster or slower than the predominant train.

This error was included in the 2008 undertaking and, as QR Network has not proposed to change this element of the undertaking, it persists in the 2009 DAU.

In response to this concern, as raised in the Authority's issues paper for the 2009 DAU, QR Network has proposed adjusting this formula in the following way (QR Network, April 2009(c)):

$$rtp = \max\left[(A/B), (B/A)\right]$$

Where: A = Maximum number of Reference Train Services at full utilisation, and
B = Maximum number of proposed Train Services at full utilisation

The Authority believes that this proposal will resolve this issue, therefore it proposes that the 2009 DAU be amended to include the revised rtp formula.

Decision 6.23

The Authority requires that QR Network amend clause 3.2 of Schedule F, Part A so that the rtp multiplier provides for a surcharge for trains that are either faster or slower than the predominant train (in accordance with the revised rtp formula shown in section 6.18 of this decision), if they are scheduled to operate that way in the Daily Train Plan.

7. CAPACITY MANAGEMENT

The undertaking's capacity management principles are divided between issues relating to transfer, relinquishment and resumption of capacity, which are covered in Part 7 of the undertaking and scheduling issues, which are governed by the network management principles in Schedule G of the undertaking.

Key differences between the 2008 undertaking and the 2009 DAU involve proposed changes to the resumption threshold for cyclical traffic and the removal of fees for transfers between coal-carrying train services within a coal system for a term of less than two years.

The Authority supports the transfer and relinquishment provisions in principle but believes that they are not clearly drafted. Therefore, the Authority has proposed amendments to improve the clarity of the drafting in this part of the undertaking.

QR Network has also proposed, but not yet formalised, the development of system rules in the 2009 DAU. Given stakeholder concerns, the Authority proposes that the undertaking include a set of obligations for developing the system rules.

7.1 Introduction

QR Network has, in general, proposed to roll-forward the basic principles in Part 7 and Schedule G of the 2008 undertaking to the 2009 DAU.

Most of the changes QR Network has proposed to the network management principles are devoted to addressing issues relating to changes in the way rail and port scheduling interact, while the changes to the capacity management principles relate to the transfer and resumption of train service entitlements. Major amendments to Part 7 and Schedule G include:

(a) developing 'system rules' and introducing system paths (section 7.3);

(b) amending the Traffic Management Decision Making Matrix to allow train controllers to give priority to a late-running train over an on-time train (section 7.5);

(c) amending the contested train path decision-making process to allow an access holder to redirect underutilised capacity (section 7.6);

(d) tightening the resumption threshold for cyclical traffics to 90% utilisation over a year (section 7.7);

(e) removing short term transfer fees for coal carrying services within an individual coal system (section 7.9); and

(f) replacing transfer fee arrangements with a general relinquishment fee (section 7.11).

7.2 Network Management Principles

The network management principles set out the rules which govern the day-to-day operations of trains on QR Network's tracks, and how those train movements are planned. This has a direct effect on train service entitlements, which is the fundamental product that QR Network provides to above-rail operators and their customers under access agreements.

QR Network's network management principles were developed in an operating environment premised on the stockpiling of coal at the port, and where the order in which trains arrived was relatively unimportant. This allowed trains to operate on an 'even railings' basis, with one train following another in the order they reached the mainline from the various branch lines in a

system. But even railings require sufficient stockpile space at the port to have an entire cargo on site before a ship arrives to carry it away.

In recent years, this way of operating has come under pressure, particularly at the Dalrymple Bay Coal Terminal (DBCT). The stockpile space has not increased in step with the addition of train unloading and ship loading capacity. This has required more efficient use of the stockpile space. The port has responded by scheduling shipments on a 'cargo assembly' basis, with the last few trainloads required for a shipment delivered to the port while the ship is already berthed. This has placed a greater burden on rail infrastructure, and increased the importance of the order in which trains arrive at the port.

QR Network's proposal

QR Network said it needed to adapt its network management principles in the 2009 DAU to allow for systems where the operating basis had changed from even railings to cargo assembly. This was particularly true for the Goonyella system mines that exported through DBCT. QR Network said a move to a 'dynamic scheduling environment' created a risk for QR Network in terms of its compliance with the undertaking and with access agreements.

> *In particular, the current definition of capacity entitlements and the network management principles do not adequately reflect the operational variability that occurs in practice and the consequent need to re-sequence trains having regard to the need to maximise supply chain throughput and to meet the demands of the port (QR Network, sub no. 4: 2).*

QR Network's proposals to address this concern leave the main body of the network management principles in Schedule G largely unchanged from past undertakings. However, QR Network said its changes, including the introduction of system rules in a new appendix 1 to Schedule G, provide for greater flexibility to coordinate with the priorities of the overall coal chain. The details of the significant changes to Schedule G are discussed below in sections 7.3**Error! Reference source not found.** to 7.6**Error! Reference source not found.**.

Stakeholders' comments

In general, stakeholders supported QR Network's proposed changes to the network management principles. Asciano said it agreed with adding system rules, amending the management of the sequencing of trains, and allowing an access-holder to specify a preference between the sequencing of its own trains.

> *In Asciano's view, the principles paper sets out the issues well and cogently argues the proposed changes. Asciano's experience in the NSW Hunter Valley suggests that the QR Network proposals are the most appropriate way in which to achieve the stated objectives (Asciano, sub. no. 33: 27).*

ARTC said it was addressing the implications of having even railings, cargo assembly and timetabled traffics on its own network in the Hunter Valley. It said its network management principles sought to recognise the difference between the objectives of on-time exit, and in-sequence arrival (ARTC, sub no. 32: 8-9).

ARTC's network management principles in the Hunter Valley coal network access undertaking refer to an 'integrated plan' prepared by the Hunter Valley Coal Chain Coordinator in accordance with system rules, 'setting out the plan for the running of trains, assembly of cargoes and loading of vessels'. The principles go on to say that:

> *ARTC will manage Trains on the Hunter Valley Network having regard to the Integrated Plan and in accordance with the Network Management Principles set out in this Schedule (ARTC, sub. no.32: 71).*

The QRC said 'train operators may well be better placed to comment on the detail' of the main body of the network management principles (QRC, sub. no. 38: 35). The QRC's comments on system rules and system paths are summarised in section 7.3.

Authority's analysis and draft decision

The Authority favours the principle of improving the efficiency of the coal supply chain by aligning QR Network's operating rules with the priorities of the overall transport network. On that basis, the Authority approves of QR Network's minor changes to the main body of the network management principles in Schedule G of the 2009 DAU.

The references to system paths that QR Network has added to the master train plan principles are consistent with the proposed implementation of system paths through the system rules, as discussed in section 7.3.

7.3 System Rules

The network management principles in the 2008 undertaking apply across QR Network's 10,000 kilometres of track, regardless of the factors that may cause train operations to differ between various sections of the network.

QR Network's proposal

QR Network said that different parts of its central Queensland coal rail network operated in different ways. This was creating issues for QR Network in areas such as the Goonyella system serving DBCT, where the port now used cargo assembly rather than even railings.

To address these issues, the 2009 DAU proposes to add system rules which will modify and supplement the network management principles to tailor the operations of each system to suit the priorities of that system.

> *The system rules documents would be 'live' documents that are referenced in and governed by the access undertaking, but do not form part of it. As such, the 2009 undertaking will need to recognise the existence and operation of the system rules (QR Network, sub. no. 4: 5).*

The arrangements for establishing system rules are in appendix 1 of Schedule G of the 2009 DAU which specifies that the rules may include:

> *(i) the declaration of System Paths for an Individual Coal System;*
>
> *(ii) the procedures for Access Holders to submit Train Orders and for QR Network to schedule Train Services in the ITP;*
>
> *(iii) the procedures for QR Network to schedule the DTP [daily train plan] from the ITP[intermediate train plan], provided that these procedures must be consistent with the matters referred to in Clauses 4(d)(i) to (vi) of Part A;*
>
> *(iv) the relevant critical objectives for Train Services operating in an Individual Coal System or a combination of Individual Coal Systems to assist decision-making for Train Control in accordance with Part B;*
>
> *(v) methodology for defining path availability/use for the purpose of calculating take-or-pay charges; and*
>
> *(vi) the identification of any circumstances where a full Initial Capacity Assessment or Capacity Analysis are not required for the purposes Clauses 4.3(c)(iii) and 4.5.2(a)(vi) of the Undertaking (QR Network, sub. no. 25: 180).*

Appendix 1 to Schedule G also specifies procedures for establishing system rules, which include notifying and consulting with access holders and access seekers. If the access holders or access seekers object to the proposed system rules, they may challenge them through the dispute resolution procedures in clause 10.1 of the undertaking.

Stakeholders' comments

Most stakeholders supported the principle of developing system rules, although some said they wanted sufficient consultation before the rules were put in place. For example, Xstrata stated:

> *Any developments need to be thoroughly considered and, provided that QR Network honours its commitment to develop the Rules in consultation with users, Xstrata would welcome the opportunity to assist with the direction of those Rules (Xstrata, sub. no. 43: 26).*

The QRC said the coal mining industry was concerned about how the system rules would impact on existing contractual arrangements. It also said the 'adversarial, time-consuming and expensive' dispute resolution processes should not be the primary instrument for ensuring an access holder was not unfairly impacted by the development of system rules. The QRC said the rules should be developed through consultation with the industry, above-rail operators, port operators, QR Network and the Authority.

> *The development of system rules may provide a practical means of addressing scheduling issues in the various coal supply chains. However given the unknown implications on the rights of end customers, industry considers that a transparent and effective consultation process is required to develop such system rules – including approval by the QCA in the event that there is not unanimous support for the rules (QRC, sub. no. 38: 35).*

BMA was concerned about how the new rules might affect operations at its Hay Point coal terminal, which is adjacent to DBCT.

> *Specifically, it is important that the terminal, our mines and our haulage provider(s) are able to maintain an efficient rail-to-stock service, and not be constrained in this by Goonyella System rules or procedures that try to impose a degree of conformance with the very different operating mode of the DBCT coal chain (BMA, sub. no. 34: 2).*

QR Freight said the Authority needed to consider whether the 2009 DAU had a mechanism to trigger a review of the system rules, to enable deliberation on issues such as how re-allocation of risks among supply chain parties would be managed.

> *QR Freight believes it is important that QR Network not have a right to unilaterally change the System Rules without agreement by parties commercially impacted by such changes. It will require scrutiny of all supply chain participants to consider the impact such decisions could have on the existing risk/reward relationships embedded in the System Rules (QR Freight, sub. no. 37: 9).*

QR Freight also said the system rules:

(a) could be used to give operators more clarity on how many usable paths would be available, bearing in mind considerations such as scheduled and unscheduled maintenance;

(b) could give users a basis on which to fund spare rail infrastructure capacity to increase reliability and build in advance of demand;

(c) could provide a basis for monitoring the performance of supply chain participants; and

(d) should include the methodology for calculating sectional run times and below rail transit times, to 'provide greater understanding of the impacts congestion will have on all parties to the supply chain'.

Asciano approved of the changes as part of a general endorsement of QR Network's proposed changes to the network management principles.

Authority's analysis and draft decision

The Authority accepts the principle of having specific operating rules that match the priorities of each system's ports and mines. However, there are a number of issues which need to be addressed, namely:

(a) QR Network's proposed treatment of the system rules has the effect of making their contents apply to all access agreements, irrespective of when they were signed;

(b) the proposed processes for establishing the system rules do not provide for sufficient consultation and cooperation in developing the terms of the system rules;

(c) QR Network is yet to provide the Authority or access holders with draft system rules, or the proposed content of any system rules; and

(d) the uncertainty about the nature and content of the system rules creates uncertainty about access seekers' and access holders' rights under access agreements.

One of the difficulties in changing operational procedures for using QR Network's infrastructure is that there are several 'generations' of access agreements in force at the same time. These can have different interpretations that complicate efforts to make system-wide changes. For example, the take-or-pay provisions in older access agreements are different from those in later contracts.

Nevertheless, all of the access agreements provide for operations to be governed by the network management principles, as they may change from time to time. Therefore, the system rules may be covered by this provision, as they will be created under rules set out in an appendix to the network management principles.

This potential application across different generations of contracts brings both risks and benefits for QR Network's customers. The benefit comes from the fact that those changes may be desirable for all users, and they would be unworkable without some way of making them apply to all access agreements across a system or group of systems.

The risk comes from the potential for train service entitlements and other rights in access agreements to be changed. This means that the procedures for introducing or amending the system rules need to protect the interests of all access holders and access seekers, and their customers.

While the Authority has yet to see a draft of the system rules, QR Network has indicated that the system rules may do a number of things, including:

(a) protecting QR Network from a misalignment between the terms of its contracts, and the scheduling demands of ports and other destinations (QR Network, sub. no. 4: 2);

(b) determining when and how train orders are placed (QR Network, sub. no. 4: 7);

(c) creating capacity transfer zones that ease the transfer of capacity train services with a similar origin (QR Network, sub. no. 4: 7); and

(d) defining when train paths are available for the purpose of calculating take-or-pay charges (QR Network, sub. no. 25: 180).

The list of possible applications in Appendix 1 of Schedule G also includes other detailed scheduling and network management issues.

The Authority notes that QR Network's proposed arrangements for establishing the system rules do not require that system rules be implemented for a particular system. However, in the absence of an example of any set of rules, it is difficult for the Authority or other stakeholders to make a proper assessment of the likely impact of system rules. This is problematic, given the wide scope of impacts the potential application of system rules could have on the train service entitlements of access holders and their customers.

While the Authority supports the concept of system rules, the Authority is also keen to ensure that the initial implementation of the rules is done in a transparent manner, and that the concerns of all contract-holders, access seekers and other stakeholders are properly addressed. Therefore, the Authority requires that QR Network amend the 2009 DAU to provide for:

(a) a detailed process, with a clear nine-month deadline, and review by the Authority, for putting in place initial rules for each system, which is set out as a new clause 2.5 in Part 2; and

(b) changes to Schedule G, Appendix 1 which:

    (i) clarify that consultation will include access holders, access seekers, *and their customers*; and

    (ii) clearly state that the Authority will resolve disputes over amendments to system rules, and set out what will happen if the rules are not approved.

Details of the proposed amendment to Part 2 of the undertaking are shown in decision 7.1, and the amendments to Schedule G, Appendix 1 of the undertaking are shown in Appendix 7 of this draft decision.

The procedures for putting in place system rules allow for QR Network to state for any system that it does not expect to put in place system rules within the nine-month period, and provide opportunities for consultation. The system rules, and any required amendments to other parts of the undertaking, can then be introduced in the same DAAU that is used to implement split contracts, as discussed in Chapter 5.

Decision 7.1

The Authority requires QR Network to insert a new clause 2.5 as follows:

2.5 Initial System Rules

(a) **Following the Commencement Date, QR Network will consult with Access Holders and Access Seekers whose Train Services will be affected by the System Rules for each Individual Coal System, and any affected infrastructure service providers, in relation to the introduction of the initial System Rules.**

(b) **Within nine (9) months after the Commencement Date, QR Network will submit to the QCA draft System Rules (the Draft System Rules), having regard to the equitable operation of the System Rules across Access Holders and Access Seekers (should they become Access Holders) and their Customers and the terms of Access Agreements.**

(c) **Clause 2.4(c) to 2.4(m) apply to the Draft System Rules in the same way as if a reference to the draft SAAs and consequential amendments were a reference to the Draft System Rules (with all references to clause 2.4(b) being deemed to be references to 2.5(b)).**

Decision 7.2

The Authority requires QR Network to amend the rules for establishing system rules to clearly state that the Authority will resolve disputes over amendments to system rules, set out what will happen if the rules are not approved, and clarify that consultation will include access holders, access seekers, and their customers. The required amendments to Appendix 1 of Schedule G are set out in appendix 7.

System Paths

QR Network has included in the 2009 DAU, as part of its proposed introduction of system rules, the related new concept of system paths. QR Network has defined a system path in its paper on network management principles as:

> *... a Below Rail network path that is lined up with a specific unloading pit at the port. This serves to align rail and port capacity so as to facilitate the optimal use of scarce capacity. The key objective of the system path concept is to optimise supply chain throughput through more closely linking rail Access Rights to port capacity availability (QR Network, sub. no. 4: 4).*

QR Network said system paths would be particularly important on a system which used cargo assembly, so below-rail capacity management was driven by ship arrivals and port scheduling.

QR Freight said system paths would allow above-rail operators to better align their numbers of train consists with the number of paths available on a given system.

> *The definition of a system path is a path which departs from a coal terminal, goes to a mine, loads, leaves the mine and goes to the port, unloads, and then returns to the coal terminal (QR Freight, sub. no. 37: 11)*

The Authority approves of the principle of system paths, as part of its in-principle acceptance of the system rule concept. However, even without system rules in place, system paths may give a clearer definition of an access holder, access seeker or mine's train service entitlement.

The Authority notes that QR Network has omitted a definition of 'system path' in its part 11 definitions section. The Authority requires that QR Network provide a definition that a "System Path" means a path that can be taken by a Train Service within an Individual Coal System from a specific origin to a Nominated Unloading Facility.

Decision 7.3

The Authority requires QR Network to include a definition of a 'system path' in part 11 of the 2009 DAU as follows:

> **"System Path" means a path that can be taken by a Train Service within an Individual Coal System from a specific origin to a Nominated Unloading Facility.**

7.4 Intermediate Train Plan

QR Network has, in its first two undertaking periods, used a weekly planning horizon for allocating train orders to particular days, in order to deliver access holders' train service entitlements. However, QR Network said a weekly train plan was no longer always appropriate. In particular, it did not fit in with the integrated planning of the Goonyella coal chain, which scheduled shipments 14 days ahead. QR Network proposed to allow sufficient flexibility to coordinate with variations in forward planning in different systems by changing the weekly planning period to an 'intermediate' train planning period, as set out in Schedule G, Part A, 3.

> *While QR Network has a planning preference for a weekly train plan to minimise the cost of resource identification and allocation, a weekly planning cycle may not be consistent with the supply chain management due to the large variation[s] that exist across multiple facets of the chain (QR Network, sub. no. 4: 8).*

The Authority accepts that the change to an 'intermediate' train planning horizon will facilitate the coordination of planning practices on the Goonyella coal chain, or differing procedures that may be developed by any coordinating body that is established on another coal system.

The Authority notes that, while QR Network has changed the content of Schedule G, Part A, 3, to provide for a new planning cycle, it has defined an intermediate train plan in the definitions section of the 2009 DAU as meaning:

> *a seven (7) day plan that details the scheduled times for all train services and planned possessions, urgent possessions and emergency possessions on a specified part of the rail infrastructure on each day of the relevant week.*

This wording is identical to the wording of the definition of a weekly train plan in the 2008 undertaking. Therefore, to give effect to its own proposal, QR Network must amend the definition to allow for planning cycles that vary from a weekly train plan.

Decision 7.4

The Authority requires QR Network to amend the definition of intermediate train plan to be:

a ~~seven (7) day~~ plan that details the scheduled times for all train services and planned possessions, urgent possessions and emergency possessions on a specified part of the rail infrastructure on each day of the relevant ~~week~~ period.

7.5 Priority for Late-Running Trains

QR Network converts train service entitlements into a daily running order of train services through a series of planning steps, which are specified in the network management principles. These begin with a master train plan, which sets out what paths are assigned to timetabled traffics, and what paths are available for cyclic traffics. The paths are further allocated through the intermediate train plan, which is typically prepared a week or more in advance. Then, two days before the day of operation, the specific times and paths for each train service are detailed in a daily train plan.

That detailed daily plan is subject to a variety of disruptions and changes on the day of operation. This creates potential scheduling conflicts between services whose paths would have crossed without incident, or not intersected at all, had everything gone to plan. The controllers managing the network are guided in resolving those conflicts by the traffic management decision making matrix.

The guiding principle of the matrix in the 2008 undertaking is that an on-time train should be given precedence over a late-running train, based on the assumption that all trains have the objective of on-time running.

The 2008 undertaking also provides train controllers some flexibility to depart from the principle of favouring an on-time train. The exceptions are:

(a) favouring a livestock or passenger train where the nature of its contents or a passenger priority obligation make that necessary; and

(b) favouring a train which is late for a below-rail cause, where giving it priority is consistent with the critical objectives of the trains in question, and will result in less delay overall.

These provisions are in Rules 5 and 6 of the traffic management decision making matrix, which is Appendix 2 of Schedule G in the 2008 undertaking.

QR Network's proposal

QR Network argued that train controllers require further guidance on how to treat late-running trains where last-minute adjustments are required. To achieve this, it proposed two new rules in the traffic management decision-making matrix:

(a) Rule 7 provides for an access holder to choose how two of its own trains will be directed, as long as that choice does not adversely affect another access holder; and

(b) Rule 8 allows a train controller in the central Queensland coal region to decide on the priority between trains operated by different access holders, 'if the train controller reasonably believes that this is consistent with meeting the coal supply objective(s) detailed in the system rules' (QR Network, sub. no. 25: 183).

QR Network said these new rules would allow trains to be re-sequenced on the day of operation to 'maximise coal throughput in the coal chain'. For example, a late-running train could be given priority to maintain the correct sequence of arrivals at a port, even if this meant another train would not meet its on-time objective.

Stakeholders' comments

Stakeholders were broadly in support of the changes. Asciano favoured them as part of its overall endorsement of QR Network's proposed revisions to the network management principles. ARTC said:

> *ARTC, in principle, does not consider late running should be rewarded with priority over on-time running, but recognises that such decisions may have regard for maximising coal chain throughput. These decisions should involve input from a central coal chain coordinating body where relevant (ARTC, sub no. 32: 9).*

QR Freight said it generally supported the intent of the changes, although it was concerned about aspects of the rule which allowed the train controllers to give priority to a late-running train where it was choosing between trains owned by different operators, without the port consulting with the relevant rail operator.

> *To allow a port to bypass the rail operator and decide how QR Network manages the re-prioritisation of [the] train operator's train alters the commercial risk exposure faced by that rail operator by altering the contracted risk/return trade-off in both rail haulage and access agreements (QR Freight, sub. no. 37: 20).*

Authority's analysis and draft decision

The Authority accepts that there are circumstances where it may be appropriate to favour a train that is running late for its own cause, or further delay a train that is running late for a below-rail cause. In particular, coal chain performance can suffer if a train does not arrive in the correct sequence, when it is required at a port to fill a ship that is already at its berth.

QR Network's proposed rule 7 provides flexibility to an access holder to reschedule its trains when necessary to suit its own priorities or fit in with the requirements of efficient operation of the coal supply chain.

It would then be up to the access holder to address any issues that might arise if its choice of prioritising trains adversely affected one of its customers. It is noted, however, that QR Network may need to revise or update this rule to take into account split access agreements that are put in place with end customers, when those new forms of contracts are introduced.

QR Network's proposed rule 8 is potentially more problematic, as it provides for the train controller to favour one access holder over another. This is offset by the requirement that such a decision must be based on a reasonable belief that it is consistent with supply chain objectives set out in the system rules.

Access holders' rights will be protected as long as:

(a) the system rules are reasonable, and have been put in place through an appropriate process (section 7.3); and

(b) any pattern of decisions that favours one access holder over another is addressed through the contested train path decision-making process (section 7.6**Error! Reference source not found.**).

The Authority notes QR Freight's reservations about QR Network choosing between operators without consulting with the operators, and its suggestion that the priority be agreed between the rail operator and the port.

The Authority considered whether a decision under rule 8 should be subject to a requirement that the affected rail operator be contacted directly by the port. However, this might have practical implications, as even a relatively brief delay by such a consultation process could render the decision irrelevant, and potentially sterilise train paths, or cause an unreasonable amount of disruption to port operations.

Any rules about consultation over decisions under rule 8 should be included in the system rules, as and when they are developed. This will allow procedures to be put in place that are appropriate for each system.

The Authority therefore approves QR Network's proposed changes to the traffic management decision making matrix.

7.6 Contested Train Path Decision Making Process

The network management principles in QR Network's 2008 undertaking include a set of rules for determining which access holder receives a contested train path, where multiple access holders are vying to have the same path assigned in the weekly train plan. The Contested Train Path Decision Making Process applies for resolving conflicts over the scheduling of cyclic traffics only. The process in the 2008 undertaking establishes a hierarchy, first eliminating any access holder whose request is outside the scope of its train service entitlements, then assigning the paths to:

(a) a party chosen by agreement among the competing parties;

(b) then, the access holder most behind in its services for the contract year to date; and

(c) finally, a party chosen unilaterally by QR Network.

QR Network said it had changed the process in the 2009 DAU to reflect the hybrid nature of the Goonyella system.

> *Under the proposed arrangements an Access Holder will have the ability to redirect underused Capacity entitlements to an alternate origin and destination, subject to QR Network being able to meet any requests of another Access Holder within the scope of their entitlements. This will allow Access Seekers reasonable certainty in managing volume risk associated with Customer production disruptions and facilitate short term swapping arrangements (QR Network, sub. no. 1: 81).*

The new rules proposed in the 2009 DAU still preclude any requests that are outside train service entitlements, and then provide for QR Network to assign the paths to a party chosen by agreement among the competing parties. But they then set up a further hierarchy, which assigns the paths based on:

(a) any requirement in the system rules; then

(b) in the manner requested by the access holder; then

(c) to the access holder most behind in its services for the year to date due to a QR Network cause; then

(d) to the access holder most behind overall,

with the ultimate decision still left to QR Network where the above considerations do not assist in making a decision (QR Network, sub. no 25: 182).

Stakeholders did not comment on this specific point, although it is covered in some stakeholders' general endorsement of the changes to the network management principles.

The Authority is inclined to favour any change that increases the ability of access holders and their customers to transfer their capacity entitlements, as long as those transfers to not affect the entitlements of others.

The amended rules give priority to the system rules, but that will only apply if such rules are put in place on a system, with approval of the affected access holders (section 7.3). Further, QR Network has provided a useful clarification that access holders, which are most behind for a QR Network cause, will be favoured over those which have missed out on their entitlements for other reasons.

As all these changes are reasonable, the Authority approves QR Network's revised contested train path decision-making process.

7.7 Capacity Resumption

Capacity resumption provisions allow QR Network to resume some or all of an existing access holder's capacity under certain circumstances. It would typically be used in instances where the access holder has consistently under-utilised its allocated capacity. Clause 7.4.2 of the 2008 undertaking specifies conditions under which an access holder's capacity can be resumed, the process of capacity resumption and the associated obligations for each party. Under the current arrangement, QR Network can resume capacity from an access holder if it does not operate a train service seven or more times (not necessarily consecutive) out of any 12 scheduled consecutive occasions and provided that an access holder fails to demonstrate to QR Network's reasonable satisfaction a sustained requirement for train paths that have not been utilised.

QR Network's proposal

QR Network in its 2009 DAU has proposed to tighten the capacity resumption triggers as follows:

(a) for cyclic traffic the resumption trigger is 90% utilisation for each of the four consecutive quarters; or

(b) for timetabled traffic the resumption trigger is seven or more not necessarily consecutive train paths out of 12 (clause 7.3.6) (QR Network, sub. no. 27: 79).

Stakeholders' comments

All stakeholders except QR Freight do not support QR Network's proposed amendment to tighten the resumption trigger.

QRC would like the threshold test to be reduced to 85% as a 90% utilisation threshold can be easily triggered given the difficulty in determining whether the shortfall was because of above- or below-rail issues. QRC agrees to a 90% threshold only if an access holder fails to use its access rights on an ongoing basis (i.e. beyond 12 months) (QRC, sub. no. 38: 27).

QRC also states that:

> *As currently drafted, the 90% utilisation test seems to be a series of four quarterly tests, and is unclear whether the access seeker needs to fail the test in each of the four quarters, or only in one, in order for resumption to be triggered. QRC's understanding is that QR Network intended the test to be an aggregate test over a one year period and QRC supports this approach (QRC sub. no. 38: 27).*

QRC has recommended that the undertaking include some non-binding guidelines to assist QR Network's application of the resumption provisions. These are as follows (QRC, sub. no. 38: 27):

(a) an access seeker should be allowed to hold capacity for risk mitigation purposes;

(b) an access seeker's ability to utilise capacity could relate to constraints in the coal supply chain; and

(c) an access seeker can require capacity that is not immediately required but could be used in the future for a committed capacity expansion.

Asciano does not support QR Network's 90% resumption trigger on a quarterly basis. However, it would support a 90% resumption trigger on a 12 month moving average (Ascaino, sub. no. 33: 29).

Ensham and Xstrata would like to see the resumption trigger reduced to 85% over a 12 month period as the 90% resumption trigger may be too easily triggered (Xstrata, sub. no. 43: 22). Ensham and Xstrata both support QRC's submission and Ensham in particular considers that:

> *forced resumption of capacity should be allowed only where there is a very clear need to take this action (Ensham, sub. no. 36: 2).*

QR Freight supported the resumption trigger threshold as it complements the proposed development of system rules, however it considered that it fails to address the issue of misalignment of capacity entitlements between the port and rail network (QR Freight, sub. no. 37: 23).

Authority's analysis and draft decision

The Authority believes that QR Network's arguments for tightening the trigger are not compelling as all new contracts are 100% take-or-pay. As a result, the financial penalty for not using contracted capacity will lay with the access holder and/or the customer, and not QR Network or other access holders and/or customers.

However, the Authority notes that stakeholders did not reject QR Network's proposal, rather they proposed amendments to clarify the arrangements.

Discussions with QR Network prior to the release of this draft decision has revealed that the resumption trigger of 90% utilisation was intended to apply over a year rather than for each of the consecutive quarters as the drafting suggests. Clarifying the drafting to this effect would address many of the concerns of stakeholders.

The Authority notes the QRC's concerns and suggestion of non-binding guidelines governing QR Network's resumptions of train paths that have not been utilised. In this regard, the Authority considers that under the existing provision an access seeker is given an opportunity to demonstrate to QR Network's satisfaction an ongoing sustained requirement for the train paths that have not been utilised. Further, QR Network must also demonstrate that it has a sustained alternative demand for the train paths and a reasonable expectation of commercial benefit to QR Network from the resumption of the underutilised train paths or capacity. The Authority believes these criteria are sufficient to address the QRC's concerns.

Therefore, the Authority requires QR Network to amend clause 7.3.6 such that the resumption trigger of 90% for cyclic traffic applies over a year rather than in each of four consecutive quarters as currently drafted.

Decision 7.5

The Authority requires QR Network to amend clause 7.3.6 as follows:

- **where an Access Holder (or the Railway Operator(s) appointed by the Access Holder), for any reason other than the occurrence of a force majeure event or the failure of QR Network to make the access holder's access rights available, does not:**

  – **for cyclic traffic, operate, over any four consecutive quarters, at least ninety percent points (90%) of the total train services allowed under its train service entitlement for that period ~~for each of four (4) consecutive quarters~~; or**

7.8 Competing Applications

Under the 2008 undertaking, access to capacity can be applied for by an operator on behalf of the customer (e.g. a coal mine) or by the end customer itself. However, to date all capacity has been held by an operator on behalf of the customer and it has not been an issue as there was only one operator in the above-rail market. However, it is becoming apparent that the coal mines in particular are becoming more interested in holding capacity in their own right.

QR Network's proposal

In QR Network's 2009 DAU, the proposed definition of competing application refers to:

> *access applications of two or more access seekers who are competing in order to provide train services under a rail haulage agreement with the same customer for the same service(i.e., the access rights sought relate to the same traffic task) (QR Network, sub. no 27: 127).*

Stakeholders' comments

QRC has suggested that the definition of competing application should include access applications from a mine. The existing definition of competing application refers to "holding a contractual right to provide train services for the customer" (QRC, sub. no. 38: 29).

Authority's analysis and draft decision

The Authority believes that, for the purpose of clarity, the definition of competing application should be amended to include access applications lodged by an end customer (i.e. a mine). The Authority also notes that the definition of "competing applications" is the same as that of the 2008 provisions except that it has now been defined in Part 11 of QR Network's 2009 DAU. The Authority is of the view that in using the existing form of standard access agreements it is possible for a mine to be the one who seeks access – using the access holder access agreement rather than the operator access agreement.

This is a minor drafting amendment and QR Network, in its discussion with the Authority, indicated that an amendment to the definition was reasonable.

Therefore, the Authority requires QR Network to amend the definition of competing application, replacement mine and customer in Part 11 and clause 7.3.2 (b) which in all instances is premised on the fact that competing applications are those lodged by a train operator.

Decision 7.6

The Authority requires QR Network to amend the definitions of Competing Application, Replacement Mine and Customer and in Part 11 as follows:

Competing applications **means the Access Applications of two or more Access Seekers that ~~who are competing in order to provide train service/s under a rail haulage agreement with the same customer for the same service (i.e. the access rights sought~~ are seeking Access Rights relating ~~relate~~ to the same traffic task.**

Replacement mine **means a mine:**

- **the Customer for which is the same as the Customer for the existing mine receiving the benefit of the relevant Access Rights (or where the Access Holder is the end user, the Access Holder is the same);**
- **that is in the same geographic area as the existing mine referred to above such that Train Services for that mine use substantially the same Train Paths as Train Services for the existing mine; and**
- **that is producing a volume of coal substantially equivalent to a reduction in existing volume from the existing mine.**

Customer **means**

.....

- **for the purposes of Clause 7.3.8, a person that has a rail haulage agreement with the Access Holder (which is a Railway Operator) in respect of some or all of the Access Rights subject to the Access Holders' Access Agreement.**

Decision 7.7

The Authority requires QR Network to amend clause 7.3.2(b) (ii) as follows:

In respect of competing applications, QR Network will:

.....

- **Complete negotiations and execute an Access agreement with the Access Seeker who demonstrates to QR Network's reasonable satisfaction that:**
  - **it does, or will in the immediate future, hold the contractual right to provide the Train Service/s for the Customer for which the Access Rights are sought, and the Customer is agreeable to QR Network's execution of the Access Agreement with that Access Seeker; or**
  - **where one of the Competing Applications is from the customer itself, it intends to enter the Access Agreement itself.**

Decision 7.8

The Authority requires QR Network to amend clause 2.3 (e), 3.1(b) (vi), 5.1, 6.5.2(b) as detailed in appendix 2, 3, 5 and 6 to make it clear that under the existing forms of access agreement it is possible for an end user to be an access seeker. The Authority believes that these provisions in the 2009 DAU assume that the access seeker will always be an above rail operator.

7.9 Capacity Transfer

Rail capacity is a key strategic asset for access holders and their customers, such as coal miners, in an environment where transport entitlements can be a significant limitation on production growth.

Clause 7.4.4 of QR Network's 2008 undertaking sets out the circumstances and the conditions under which an access holder may transfer all or part of their access rights to an access seeker. The clause addresses the restrictions of any such transfers based on the principle that such a transfer does not financially disadvantage QR Network.

The capacity transfer mechanism also allows access holders to mitigate adverse consequences in terms of take-or-pay obligations of operating below contracted capacity.

QR Network's proposal

QR Network in its 2009 DAU has proposed to simplify the transfer mechanisms by removing transfer fees for transfers with a duration of less than two years for transfers of coal-carrying train services within an individual coal system. QR Network has also proposed to further simplify capacity transfers provisions through the proposed development of system rules. (QR Network, sub. no 1: 79).

Stakeholders' comments

Stakeholders support the move towards simplifying the transfer fee provisions and unanimously agreed that the transfer fee provisions should be redrafted to avoid misinterpretations. Further, most stakeholders are unclear with regards to the actual transfer provisions and the implications these transfers may have on take-or-pay contracts.

Asciano supports the simplification of the transfer provisions in the 2009 DAU. However, Asciano believes that removing the transfer fee is an important amendment and therefore should be included in the body of the undertaking rather than the definitions chapter (Part 11).

Asciano found it difficult to comment on short term transfers provisions within an operator's existing train service entitlements, as it is intended to be formalised through the system rules which are yet to be drafted. Also, the current drafting does not address short term transfer provisions between operators (Ascaino, sub. no. 33: 26).

While the QRC supported the proposed changes with regards to capacity transfers, it expressed some concerns regarding the operational aspects of these new provisions. QRC said that the new proposal fails to take into account the take-or-pay obligations (QRC, sub. no. 38: 28).

QR Freight supported removing the transfer fee for short term transfers of capacity within a coal system, but seeks clarification on whether short term transfers between systems will be subject to transfer fees and the application of transfer rules in the context of the yet to be drafted system rules (QR Freight, sub. no. 37: 21).

For purposes of clarity, QR Freight recommended that QR Network provide a capacity transfer template agreement in its information pack posted on the website as this will expedite capacity transfer requests. QR Freight would also like to see clarifications to ensure that weekly or daily reallocations are not confused as capacity transfers (QR Freight, sub. no. 37: 21).

Xstrata welcomed the proposal by QR Network to simplify transfer of capacity provisions, as it believed that a flexible capacity transfer mechanism will encourage the efficient utilisation of capacity. However, Xstrata believes the current capacity transfer process is suitable for long term transfers rather than medium or short term transfers. The current proposal requires a lot of

"administrative interference" by QR Network. Xstrata believes that steps should be taken to speed up the negotiations process for transferred capacity (Xstrata, sub. no. 43: 23).

Ensham stated that:

> *Creating efficient mechanisms for transfer of access rights is critical in order to allow access holders to manage take-or-pay exposures, and will provide substantial benefits to the network (Ensham, sub. no. 36: 2).*

ARTC is considering providing users and industry with a flexible capacity transfer mechanism. ARTC said:

> *it is not clear whether QR Network's 2009 DAU provides for temporary transfers of capacity entitlements (to match, say, fluctuations in demand) nor whether the proposed process for transfers is sufficiently streamlined in practical sense to enable rapid take up of transfer opportunities (ARTC, sub. no. 32: 7).*

Authority's analysis and draft decision

The Authority supports QR Network's proposed amendment to simplify capacity transfers provisions for short term transfers (i.e. removal of transfer fees for a term of less than two years). However, this amendment has been introduced in the definition of relinquishment fee under Part 11 rather than in the main text of Part 7. The Authority believes that this is an important amendment and should be clearly stated in the main text of Part 7 to ensure rapid uptake of transfer opportunities.

QR Network in its submission stated that it will further simplify short term transfer provisions in its 2009 DAU by developing system rules. However, QR Network has not provided any details of the actual provisions or the likely impact on existing access holders. Requirements for the development and management of those system rules are discussed in section 7.3.

It is also evident that a number of issues are unresolved and lack clarity. These involve the following:

(a) application of system rules with regards to short term transfers particularly within an operator's portfolio;

(b) implication of short term transfers on take-or-pay contracts of access holders;

(c) whether weekly and daily reallocation of train paths be classified as capacity transfer; and

(d) provisions relating to capacity transfers between systems and whether a transfer fee is payable on such transfers.

Given lack of clarity regarding the above issues, the Authority requires QR Network to explicitly address these concerns in Part 7 of the 2009 DAU.

Decision 7.9

The Authority requires QR Network to clearly specify its proposed amendment regarding removing fees for the transfer of capacity rights for a term of less than two years in the main body of Part 7 rather than the definition section in Part 11. Detailed drafting is provided in appendix 7, clause 7.3.7.

The Authority also requires QR Network, for purposes of clarity, to clearly specify:

- **how the system rules, should they be introduced, will apply to short term transfers, particularly within an operator's portfolio;**
- **how an access holder's take-or-pay obligations will be affected by short term transfers of capacity rights;**
- **whether weekly and daily reallocation of train paths is classified as capacity transfer; and**
- **what arrangements will apply to capacity transfers between systems and whether a transfer fee is payable on such transfers.**

7.10 Committed capacity or renewal of access rights

The 2008 undertaking provides for the formation of a queue of access seekers where there is insufficient capacity to meet the requirements of all access seekers. In doing so, it also provides priority for existing access holders, and their customers, to renew their existing agreements over new access seekers. This principle is given effect to through the committed capacity register that allows an existing access seeker to extend its access rights beyond the expiry date of an existing agreement by being placed first in any queue for that capacity.

QR Network's proposal

The proposed amendments in QR Network's 2009 undertaking provide for an access holder, for coal train services in central Queensland, to lodge an access application close to three years and no less than two years from the termination of its access rights. QR Network has sought to amend clause 7.4(d) to modify the renewal provisions. These amended provisions would require:

(a) QR Network to notify an existing access holder and the customer of the need to submit an access application for retaining the existing access agreement beyond the expiry date at any time within three years prior to the expiry date;

(b) an access application to be received by QR Network within 60 days of such notice in order for an access application to be considered a renewal access application; and

(c) QR Network to place such an application first in queue for the capacity that would otherwise be available at the expiry of the agreement (clause 7.3.5 (f)).

The access application will be subject to reordering of the queue, except that clause 7.3.5(d) has now be amended such that a renewal application will not be moved up or down a queue on the basis of a term less than 10 years, provided that the proposed term represents a reasonable estimate at that time of the remaining life of the mine.

Stakeholders' comments

Asciano does not support the 2009 DAU's proposed amendment to clause 7.4 (d), that provides an end customer the option to renew access rights close to three years from the termination of access rights. Asciano is concerned that the provision (both in the 2008 undertaking and in the proposed drafting in 2009 DAU) are meant solely to benefit the incumbent access holder (who happens to be a train operator in all existing cases) rather than just the end customer. This makes it difficult for a second operator to enter the market. Asciano notes that:

> *the existing process has unintended consequences and uncertainties that gave rise to considerable concern to both Asciano and its customers. The key concerns lay around:*
>
> - *the timing of access application;*
>
> - *the interaction between the access applications and negotiations between the end customer and potentially more than one train operator.*
>
> *These concerns ultimately manifest themselves in reluctance for end customers to approve the train operator making an access application as early as might have been desired due to the fact that haulage negotiations with one or other operator might still be in progress. The announcement of an application by one operator through the committed capacity registers process to the other competing operator (incumbent) has the potential to impact on commercial negotiations for haulage services (Asciano, sub. no. 33: 24).*

Asciano does not support the existing provisions in the 2008 undertaking and was, therefore, reluctant to support the new proposed arrangements in the 2009 DAU. Asciano instead suggested that an acceptable option would be a notification process rather than a formal application submitted by an end customer.

QR Freight argued that QR Network should approach an access holder for renewal within 12 months of the expiry of the existing access rights. QR Freight also sought further clarification regarding management and renegotiation of existing access rights, especially with regard to the end customer. It recommended that QR Network should approach both the end customer and the access holder for the renewal of access rights (QR Freight, sub. no. 37: 23).

QRC was concerned that, by limiting the renewal provisions to the central Queensland coal region (CQCR), QR Network has excluded the Western system from the draft undertaking. QRC proposes that the drafting be amended to include the rights of Western system users in QR Network's undertaking. In this regard QRC notes that:

> *The revisions included in the 2009 DAU contain a number of positive changes compared to UT2, which were discussed in consultation between QR Network and the QRC. However, QRC is deeply concerned that the rights of Western system customers have been stripped from the draft undertaking by limiting clause 7.4(d) to coal carrying train services in central Queensland. This is a significant departure from the UT2 provision (QRC sub. no. 38: 31).*

Other issues raised by QRC regarding renewing access rights (clause 7.4) were:

(a) clause 7.4 includes a provision to renew access rights by "the access holder or the customer". QRC suggests that this should be amended to provide for another operator other than the current access holder to lodge the renewal access application;

(b) the definition of renewal of access application in Part 11 allows for the application to be based on a replacement mine. QRC suggests that part (i) of the definition should be amended to "where the ownership of mine involves the same customer (or, where there are numerous customers, substantially the same group of customers) as for the existing mine receiving the benefit of the relevant access rights".

(c) clause 7.4 (d) requires that an access application be submitted by a certain date in order to retain the right to renew. However, clause 7.4(d)(ii) provides no limit to how early the notice may be provided. QRC suggests that it is unreasonable to ask for a renewal before the three years prior to the expiry date. Therefore, clause 7.4 (d) (ii) should be deleted.

Authority's analysis and draft decision

The Authority considers that the proposed amendments seem reasonable and are similar in principle to the 2008 DAU provisions. The only difference being that the renewal of access rights are different for CQCR and non- CQCR services.

The three year time period is reasonable and should not be shortened as proposed by QR Freight. Renewing access seekers are given preferential treatment in the queuing mechanism and they should be obliged to signal their intentions early so QR Network can appropriately manage any capacity expansions to handle new access seekers.

However, the Authority agrees with the QRC that clause 7.4 (d) (ii) adds ambiguity to QR Network's proposed amendment. There is no limit as to how early QR Network can notify an access seeker as the proposed amendment uses the term "as soon as reasonably practicable". This means that QR Network can notify an access seeker to renew an access application even before three years from the expiry of the existing access agreement. Therefore, the Authority requires QR Network to delete clause 7.4 (d)(ii).

The Authority notes QRC's concerns that the proposed amendment limits the renewal provisions to the CQCR only while excluding the renewal rights for Western system users from the undertaking.

The 'right to renew' is located in clause 7.3.5(f) and is tied to the definition of renewal application, which relies on a reference to clause 7.4(d), which in turn is linked to train services operating in the CQCR. Therefore, only access seekers in the CQCR enjoy the right to renew under QR Network's proposed amendment. In order for all access seekers for coal carrying train services to enjoy the same rights, the Authority requires QR Network to amend clause 7.4 (d) to remove references to the CQCR.

The Authority notes QRC's concerns that the proposed amendment for the renewal of access rights in the CQCR is limited to the access holder and its customer. This does has the potential for strengthening the market power of the incumbent operator.

The Authority therefore requires QR Network to amend the definition of renewal application in Part 11 so that it now refers to an application made by the existing access holder, the customer or another railway operator nominated by the customer.

The Authority requires QR Network to amend clause 7.4 (d) to include an obligation to notify the access holder and its customer. The customer will then have the option to put in a renewal application for the existing rights on its own or allow another operator to apply for renewal on its behalf. The Authority believes that this amendment will enable another operator nominated by the customer to apply for renewal of access rights on behalf of the customer. This amendment will address Asciano's concerns above.

Decision 7.10

The Authority requires QR Network to amend clause 7.4 (d) as follows:

- **QR Network will notify an access holder for coal-carrying train services ~~operating in the central Queensland coal region~~ (and the customer of that access holder if any) no more than three (3) years and no less than two (2) years prior to the expiration of an Access Right of that Access Holder ~~or~~ that**

  – **As soon as reasonably practicable, if an Access Seeker requests Access that will utilise Capacity that would be Available Capacity due to the expiration of an access Right of that Access Holder; if the Access Holder or the Customer wishes to retain the applicable Access Right; or**

  – **The Customer wishes another nominated Railway Operator to acquire the applicable Access Right,**

  ~~That, if the Access Holder or the Customer wishes to seek to retain the applicable Access Right~~ beyond the expiry date for that Access Right, then the Access Holder, ~~or~~ the Customer and/or nominated Railway Operator should submit an Access Application to QR Network.

Decision 7.11

The Authority requires QR Network to delete clause 7.4(d)(ii).

Decision 7.12

The Authority requires QR Network to amend the definition of Renewal Application in Part 11 as follows:

"*Renewal Application*" means an Access Application submitted to QR Network by the relevant Access Holder, Customer or another Railway Operator nominated by the Customer in accordance with Clause 7.4(d):

- **within sixty (60) days after QR Network gave the relevant notice under Clause 7.4(d); and**

- **in respect of Access Rights:**

  – **not in excess of those under the relevant Access Holder's existing Access agreement;**

  – **for the existing mine which receives the benefit of those Access Rights or a Replacement Mine; and**

  – **for a term of at least ten (10) years or, if the Access Application relates to an existing mine, the remaining life of that mine.**

~~but does not include an Access Application in respect of Access Rights that were granted to the relevant Access Holder under its existing access Agreement as a Transferee;~~

7.11 Capacity relinquishment and relinquishment fees

The capacity relinquishment facility allows an access holder to negotiate a reduction in its capacity entitlement with QR Network. This provision allows access holders to reduce their take-or-pay obligations in circumstances where the access holders are not able to meet their contracted haulage levels.

Clause 7.4.3 of QR Network's 2008 undertaking establishes a process by which an operator can relinquish under-utilised access rights and pay a relinquishment fee. Under the existing provisions, an access seeker may relinquish access rights upon the payment of a relinquishment fee, which may be reduced if QR Network enters into an access agreement with another access holder.

QR Network's proposal

QR Network has proposed to modify its permanent transfer provisions. The new amendments require an access seeker to effectively relinquish its access entitlements and the capacity is then reallocated by QR Network in accordance with capacity allocation principle. If there are no access seekers seeking access to the capacity being relinquished then the existing access holder may nominate an access seeker to receive the transferred (relinquished) capacity. The relinquishment process will include amongst other things a requirement to submit a notice of intention to relinquish to QR Network.

QR Network has also sought to replace the transfer fee by a general relinquishment fee. QR Network has removed the worked example for calculating relinquishment fee from Schedule M of the undertaking and instead has proposed to publish it on its website (QR Network, sub. no. 1:78).

QR Network has sought to amend the definition of relinquishment fee to indicate that the calculation will be made in accordance with an access agreement and QR Network's assessment of unknown/uncertain future events.

Stakeholders' comments

The majority of stakeholders were concerned about the lack of clarity with the relinquishment provisions and complexity involved in the actual calculation of the relinquishment fee.

Xstrata recommended removing the relinquishment fee. In this regard it stated that:

> *While it is accepted that the relinquishment fees are historic and may be applicable in certain situations where an access seeker chooses to relinquish its access rights, free and clear. However, if an access holder wishes to relinquish its rights to another access seeker, it is arguable that relinquishment fees should not apply as the rights are, in essence, merely being transferred (Xstrata, sub. no. 43: 22).*

Xstrata believed the relinquishment fee should not apply in cases where capacity rights are transferred to another access seeker. It said that a relinquishment fee, in an event of a transfer, is likely to act a disincentive for better utilisation of capacity.

Xstrata said the proposed methodology for calculating a relinquishment fee is too complex and recommends simplifying or removing of the relinquishment fee. A simple process is likely to free up capacity which can be better utilised by another access seeker (Xstrata, sub. no. 43: 22).

The QRC considered the drafting of this section to be unclear. For instance, QRC would like to see clarity in drafting such that a notice for relinquishment is non-binding to the extent that it should not take effect till the date the relinquishment fee is paid.

The QRC was also concerned that the proposed definition of relinquishment fee was too broad. QRC recommended that QR Network should be more specific about what it is trying to achieve with the additional drafting (QRC, sub. no.38: 28). The QRC is concerned that the new clause requires that, in a case where relinquishment fees are calculated by reference to future take-or-pay obligations and the calculation of those obligations is dependent on future events, the take-or-pay obligations will be estimated "using assumptions determined by QR Network about those future events so as to calculate the maximum amount of take-or-pay that could potentially be payable".

QRC believes that this clause is too open-ended and could be interpreted in different ways. For example, an assumption that future volumes within the system would reduce to extraordinary low levels, resulting in extremely high access charges (on which take-or-pay would be payable). The QRC suggested that QR Network should be more specific about what it is trying to achieve with this additional drafting.

Again, the QRC believes clause 7.3.7 (c), as currently drafted, does not encourage relinquishment. It would be beneficial to the system if an access seeker provided notice as soon as possible of an intention to relinquish rather than withholding this information from QR Network.

Further, clause 7.3.7 (i)(vi) requires clarifications as well, since the current drafting suggests that:

> *an access seeker may suggest that it has been adversely affected by a proposed transfer on the basis that, if the relevant capacity was not transferred, it may be relinquished and become available to the access seeker. However, QRC understands that this is not intended (QRC, sub. no. 38: 28).*

Authority's analysis and draft decision

The Authority notes stakeholders' comments with regard to the complexity in the calculation of relinquishment fee and the proposed drafting in the 2009 DAU.

As far as the relinquishment and transfer provisions are concerned, the Authority agrees with the stakeholders that the sections are not clear. However, the Authority has not proposed to change or amend the principles involved but has attempted to redraft sections of Part 7 to provide clarity in understanding.

The Authority notes Xstrata's comments and agrees that it is reasonable that neither party should benefit from a breach of contract (i.e. when access rights are relinquished). QR Network's proposal seems reasonable (although the proposal could have been drafted more clearly) because in cases where an access holder transfers capacity rights to another access seeker and is for a period of:

(a) less than two years, no access/relinquishment fee is payable; and

(b) for a period of more than two years, the extent of the relinquishment fee is reduced to only take into account any outstanding take-or-pay obligations and common cost contributions.

This arrangement will ensure that there is no revenue cap shortfall that has to be picked by other users.

The Authority also requires QR Network to include the content in the definition of relinquishment fee in the main text of Part 7 and define relinquishment fee in Part 11 as the fee payable upon the relinquishment or transfer of access rights pursuant to clause 7.3.7, calculated in accordance with clause 7.3.8.

Decision 7.13

The Authority requires QR Network to include the definition of Relinquishment Fee as clause 7.3.8 in Part 7 of the undertaking and amend the definition of Relinquishment Fee in line with the detailed drafting provided in appendix 7.

Decision 7.14

The Authority also requires QR Network to amend clause 7.3.7 to explicitly differentiate between the capacity transfer and relinquishment provisions in line with detailed drafting provided in appendix 7.

Decision 7.15

The Authority also requires QR Network to replace the current definitions of Nominated Access Rights and Relinquishment Fee from its 2009 DAU in part 11 as follows:

- **"Nominated Access Rights" means the Access Rights to be relinquished or transferred pursuant to clause 7.3.7**
- **"Relinquishment Fee" means the fee payable upon the relinquishment or transfer of Access Rights pursuant to clause 7.3.7, calculated in accordance with clause 7.3.8.**

7.12 Capacity expansion

QR Network's proposal

QR Network has sought to amend clause 7.3.3 in its 2009 DAU to clarify that it will undertake infrastructure enhancements only if QR Network can commercially justify such projects. QR Network stated that:

> *QR Network will undertake infrastructure enhancements to create sufficient available capacity to provide access rights sought by an access seeker, if QR Network reasonably considers that its expected net additional revenue less any expected costs associated with the infrastructure enhancements, is sufficient to justify QR Network undertaking the infrastructure enhancements (including QR Network's incurring of those costs and exposure to financial and other risks) (QR Network, sub. no.27: 74).*

Stakeholders' comments

Xstrata recommended that QR Network should provide detailed analysis to an access seeker if QR Network decides not to undertake capacity expansion. Xstrata is of the view that there should be greater transparency when QR Network decides to abandon expansion plans as it impacts all participants in the coal supply chain. In this regard Xstrata stated that:

> *It is imperative that decisions in respect of capacity expansion should attempt to achieve the best possible solution for the entire coal chain, rather than being limited to self-serving intentions of an individual infrastructure provider (Xstrata, sub. no. 43: 21).*

Authority's analysis and draft decision

The Authority considers that it is reasonable for QR Network to have some discretion on when it decides to expand network capacity. However, QR Network should provide justification as to why it has decided to not proceed with a particular project, particularly those included in the master planning process. QR Network should also advise access seekers of the nature and

extent of the commercial damage it believes it would suffer if it proceeded with a project. QR Network should also advise access seekers what they would have to do to address QR Network's legitimate commercial concerns in order for QR Network to change its decision and to proceed with a project.

Decision 7.16

The Authority requires QR Network to amend clause 7.3.3 as follows:

- **QR Network will undertake Infrastructure Enhancements to create sufficient Available Capacity to provide Access Rights sought by an Access Seeker, if QR Network reasonably considers that its expected net additional revenue less any expected costs associated with the Infrastructure Enhancement, is sufficient to commercially justify QR Network undertaking the Infrastructure Enhancements (including QR Network's incurring of those costs and exposure to financial and other risks); and**

- **If QR Network determines not to proceed with Infrastructure Enhancements in accordance with clause 7.3.3(a), and those Infrastructure Enhancements:**

  - **have previously been:**

    (A) featured in a Coal System Master Plan;
    (B) the subject of an application by QR Network to the Authority for pre-approval regarding prudency of the scope or standard of capital expenditure, or approval of a procurement strategy;
    (C) the subject of a request by QR Network for pre-approval of the prudency of the scope of capital expenditure by a Customer Group; or
    (D) the subject of detailed discussions in any whole of supply chain planning group; or
  - **were considered a Major Project,**

then QR Network must publish:

- **the reasons for its decision not to proceed with the Infrastructure Enhancements (including the reasons for any material changes from the QR Network's previously projected net additional revenue and expected costs associated with the Infrastructure Enhancements); and**

- **what actions, including the agreement to specified Access Conditions, Access Seekers would need to undertake for QR Network to reconsider proceeding with the Infrastructure Enhancements.**

7.13 Formation and reordering of the queue

As referred to in chapter 4 of the draft decision, queuing arrangements were first introduced in the 2006 undertaking to provide a temporary solution to the problem of demand and supply mismatch. These arrangements provided for QR Network to move an access application in a queue with a term of 10 years or more ahead of an application offering a term of less than 10 years.

QR Network's proposal

QR Network had proposed that it be permitted to reorder the queue based on the length of the contracting period. The proposed amendment allows QR Network to reorder access applications that are seeking access rights for a substantially longer term than the term sought by one or more of the other access applications higher in the queue (clause 7.3.5).

Stakeholders' comments

Xstrata and the QRC strongly opposed QR Network's proposition of reordering access seekers in the queue based on the length of the contracting period (10 year of more). According to Xstrata:

> *the primary problem with this proposition is that this section would have the effect of allowing QR Network to gain financially from its failure to provide sufficient capacity to users, if sufficient capacity already existed there would be no resultant queue (Xstrata, sub. no. 43: 22).*

The QRC stated that it is reasonable for QR Network to prefer access applications of at least 10 years in term, but seeking to provide a preference to contracts longer than 10 years would undermine the integrity of the queuing arrangement. The proposed amendment will act as a disincentive for future capacity expansions and will have the following unintended outcomes (QRC sub. no. 38: 25):

(a) QR Network will be able to further lower its risk profile; and

(b) smaller resource companies might face a competitive disadvantage.

The QRC believes that with the proposed amendment in place, access seekers might be forced to offer a term longer than 10 years in order to maintain their place in the queue. The QRC stated that:

> *The queue exists because of the failure to expand the network to meet demand. It is not appropriate for QR Network to seek to gain a commercial advantage (in the form of a longer contract term and therefore a reduced risk profile) from this situation (QRC sub. no. 28: 26).*

Asciano also rejected QR Network's proposal on grounds that it is potentially discriminatory against smaller producers and is likely to reduce competition in the above-rail market. In this regard Asciano stated that:

> *A small producer may be unable to offer a contract as attractive to QR Network as a larger producer that has a broader range of mines over which to spread risk. Given that producers have found the existing access holder contract untenable, a producer would need to align itself with a train operator for a very long period or risk losing its place in the queue. A flow on consequence is that this reduces market depth for above-rail services as contracts are secured for long term arrangements thus reducing the frequency of opportunities for market entry for new entrants (Asciano, sub. no. 33: 23).*

Authority's analysis and draft decision

Queuing mechanisms were developed to manage short term supply demand imbalance. The 2006 undertaking provisions relating to how and when QR can reorder the queue were appropriate since they applied in defined circumstances and constrained QR's discretion to rearrange the queue, but nonetheless did take into account QR's legitimate business interests.

The Authority considers that the 2008 provision of moving an access application with a 10 year term above a lesser term was reasonable in terms of the extent of the commitment required by QR Network for underwriting its investments.

Notwithstanding the existing provisions, the new clause 7.3.5 (d) (iii) is concerning for the Authority because of the ambiguous nature of what might constitute a term 'substantially' longer than the term sought by one or more of the other access applications higher in the queue. The proposed amendment gives QR Network unlimited discretion in moving access seekers up and down the queue. It also has the potential to entrench the position of mining companies and operators with larger portfolios. Therefore, the Authority requires QR Network to delete clause 7.3.5 (d) (iii). The Authority believes that retaining this proposed amendment would result in increased number of disputes making the negotiation process cumbersome and protracted.

Decision 7.17

The Authority requires QR Network to delete clause 7.3.5(d)(iii) as it has the potential to reduce competition in the above-rail market.

7.14 Definition of capacity analysis and available capacity

Capacity analysis is important for determining whether or not available capacity exists. Capacity analysis assists access seekers with their forward planning, particularly in relation to an access seeker's business initiatives and the acquisition of rolling stock thereby reducing circularity in the negotiation process.

QR Network's proposal

QR Network has amended the definition of capacity analysis to include:

(a) infrastructure enhancements required to provide additional capacity to accommodate the requested access rights; and

(b) sufficient available capacity.

QR Network has proposed two different definitions for the term "available capacity". QR Network's 2009 DAU defines available capacity as

> *capacity that is not committed capacity and includes capacity that will cease being committed capacity prior to the time in respect of which capacity is being assessed (QR Network, sub. no. 27:124).*

However, QR Network's capacity management principles paper proposes to define available capacity as capacity that will be provided through planned infrastructure enhancements.

Stakeholders' comments

The QRC argued that the definition of available capacity should be amended in order to link it with the new proposed definition of capacity analysis. The definition of available capacity should include capacity which is expected to become available through planned infrastructure enhancements.

The QRC is of the view that the proposed definition of capacity analysis makes it clear that capacity from planned enhancements is not available capacity. It suggested that that the term "available capacity" be amended to include capacity which is expected to become available through planned infrastructure enhancements. It stated that:

> *This will also resolve an apparent contradiction between clause 4.5.1 (e) (v), which implies that only available capacity can be offered under an IAP, and clause 4.5.2 (a)(vi), which suggests that*

> *infrastructure enhancements may be may be required to accommodate an access application which is under negotiation (QRC, sub. no. 38: 21).*

Xstrata also supported the QRC's submission on the definition of available capacity (Xstrata, sub. no. 43:28).

Authority's analysis and draft decision

The definition of available capacity in the 2009 DAU is the same as that in the 2008 undertaking in that available capacity is limited to capacity that is not committed capacity. QR Network in its principles paper said that:

> *The definition is somewhat circular as in order to become committed capacity, at some point the capacity must be available for allocation to access seeker. QR Network believes it would be beneficial to modify the undertaking to make it clear that capacity that will be provided through planned infrastructure enhancements is available capacity (QR Network sub. no. 3: 7).*

The Authority notes that QR Network has amended the definition of capacity analysis to include reference to infrastructure enhancements required to provide additional capacity to accommodate access requests. However, in the absence of any proposed amendment to the definition of available capacity it appears that that capacity available through planned infrastructure enhancements is not available capacity. Therefore, the Authority requires QR Network to amend the definition of available capacity to explicitly include capacity that is likely to become available from infrastructure enhancements. The Authority considers this amendment necessary for purposes of clarity and is in line with the definition as proposed by QR Network in its capacity management principles paper (QR Network, sub. no. 3: 7).

Decision 7.18

The Authority requires QR Network to amend the definition of Available Capacity in part 11 as follows:

"Available Capacity" means capacity that is not Committed Capacity and includes:

- **capacity that will cease being committed capacity prior to the time in respect of which capacity is being assessed; and**
- **capacity that QR Network anticipates will become available due to planned Infrastructure Enhancements prior to the time in respect of which Capacity is being assessed.**

8. INTERFACE CONSIDERATIONS

Part 8 of QR Network's 2009 DAU establishes interface standard and key non-price parameters such as safety, technical, operational and environmental standards within which QR Network will allow third-party operators to access QR Network's below-rail services.

In the past, these arrangements have been finalised with access seekers as part of the negotiation of an access agreement. However, QR Network is developing a separate contracting structure for coal carrying train services whereby these technical train operation related matters will be included in a separate agreement with the train operator.

The Authority does not have any substantive concerns with this part of the 2009 DAU, although it has identified a number of amendments to Part 8 of the 2009 DAU that will facilitate the timely introduction of the new contracting structure.

8.1 Interface Risk Management

Part 8.1 describes QR Network's railway manager role in mitigating risks associated with the operation of train services on its rail infrastructure.

Risk management plans are designed to protect QR Network's operations and infrastructure from harm by ensuring that all train operators comply with a minimum acceptable standard. Prior to finalising an access agreement, risks related to train operations are identified by QR Network and the access seekers. Strategies for mitigating the identified risks are then built into the Interface Risk Management Plan (IRMP) and the Environmental Risk Management Plan (ERMP). It is the responsibility of the rail owner and the train operator to ensure processes are in place to enable successful compliance with the risk management plans.

QR Network's proposal

Consistent with past undertakings, the 2009 DAU proposes that access seekers participate in the interface risk management process for the purpose of identifying interface risks posed by the operation of a particular train service on the rail infrastructure. This aligns with the current arrangement under the 2008 undertaking.

Authority's analysis and draft decision

This arrangement has been consistent with past contracting structures where the access holder has been held accountable for the operation of a train service. This has applied irrespective of whether the train operator has held the access rights or whether a customer has held the access rights and, on that basis, subcontracted train operations to a third party.

However, QR Network has advised the Authority that it has prepared a separate contracting structure for coal carrying train services at the request of the mining industry (see chapter 5 for more details). Under this contracting structure:

(a) the access seeker will negotiate an access agreement that will contain the commercial elements of access and will nominate the operator to utilise access rights granted under the capacity access agreement; and

(b) the train operator will finalise a train operator agreement that will address the technical elements of train operations and will be the agreement that will allow the operator to operate trains on QR Network's rail system.

From the customers' perspective, one of the key advantages of this approach is that it provides them with the flexibility to negotiate access rights separate from the finalisation of the technical aspects of the train operations (QRC, sub. no. 38: 22).

As was outlined in chapter 5 of this draft decision, the Authority concluded it was essential to have a framework in the undertaking to support the development of the new form of standard access agreements. As such, QR Network is obliged to amend its 2009 DAU to account for consequential amendments resulting from the new standard access agreement. The consequential amendments will include an amendment to the responsibilities of access seekers/holders and train operators with regard to the interface risk management plan, the environmental investigation and risk management report and the operating plan.

Decision 8.1

In keeping with decision 5.3, as part of the consequential amendments, the Authority requires QR Network to amend Part 8 of its 2009 DAU, to align with the new form access agreements.

8.2 Part 8 Schedules

QR Network has indicated that the management of interface risks is supported by a number of schedules that set out the framework by which the operational risks are managed, namely:

(a) HA – sample interface risk management plan;

(b) J – issues for the environmental investigation and risk management report; and

(c) K – operating plan.

The 2009 DAU includes a number of relatively minor amendments to schedules HA and K.

Schedule HA

Schedule HA is a sample of the IRMP that was included in earlier versions of the undertaking for informational purposes only.

QR Network has proposed to remove Schedule HA from the 2009 DAU. In its place, QR Network has proposed to post a sample IRMP on their website.

Stakeholders did not comment on this aspect of the 2009 DAU.

The Authority accepts QR Network's proposal to remove Schedule HA from the 2009 undertaking, provided that the undertaking includes a formal requirement that QR Network retain a published version of a sample IRMP on its website, identifying any changes that may occur from time to time.

Schedule K

QR Network stated it requires the access seeker to submit an operating plan to enable an analysis of the impacts and requirements for the proposed operations of access seekers/holders on the rail infrastructure. The operating plan is used by QR Network to determine the train service entitlement, the interface coordination plan, the access charge and other terms and conditions of the access agreement. The operating plan is also used as a basis for capacity analysis.

If an access holder chooses to change its operating plan during the course of the access agreement, QR Network and the access holder will undergo a further risk assessment and agree to any necessary revisions.

QR Network has moved the operating plan to Schedule B.

However, the undertaking still references Schedule K in a number of areas and also states that Schedule K has been renumbered to Schedule I, which it has not.

QR Network will undertake to ensure that all references to the operating plan are consistent with the current numbering, Schedule B.

Decision 8.2

The Authority accepts QR Networks proposal to remove schedule HA from the 2009 DAU and requires that:

- **the undertaking includes a formal requirement that QR Network retain a published version of a sample IRMP on its website; and**
- **changes will be identified as they occur from time to time.**

Decision 8.3

The Authority requires QR Network to align all references to the operating plan with the current numbering, Schedule B.

9. REPORTING, INFORMATION PROVISION AND COMPLIANCE

Part 9 of QR Network's 2009 DAU obliges QR Network to report on its performance and compliance with the undertaking in a timely manner. These requirements allow the Authority and interested parties to better understand the performance of the network and QR Network's compliance with the undertaking.

The Authority notes that the 2009 DAU proposals are, for the most part, consistent with the 2008 undertaking. Where the proposed arrangements vary from that decision, or where stakeholders have raised specific concerns, these are considered below.

The Authority believes that additional information must be provided by QR Network to clarify the definition and measurement of newly included performance variables. In addition, the Authority proposes that information on quantum of maintenance activities, as against their cost, be included in the public maintenance report for the central Queensland coal network.

9.1 Public Reporting

Public reporting is an essential element in ensuring the transparency and accountability of QR Network's below-rail operations, and underpins the integrity of the access regime.

Part 9 of the 2009 DAU is broadly consistent with the 2008 undertaking and requires QR Network to report particular information to the public, on a quarterly and annual basis. The quarterly report provides information on key performance indicators that reflect how efficiently QR Network manages its below-rail network. The annual reports provide information on QR Network's financial position and performance.

QR Network's proposal

QR Network's 2008 undertaking requires QR Network to prepare a quarterly report providing information on, *inter alia*, the reliability of train services, transit times, availability of network services and percentage of track under speed restrictions (cl.9.1 (d-k)). The 2009 DAU proposes to report additional performance variables and provide greater information on existing indicators. For instance, QR Network will report performance information by individual coal system (i.e. Newlands, Moura, Blackwater and Goonyella) and not just for the CQCR as a whole (QR Network, sub. no. 1: 89).

In the past, train reliability was measured based on reporting healthy and unhealthy train services – where a 'healthy' train service was one that experienced no delays (within a certain threshold) or was delayed for a below-rail cause only. As delays due solely to QR Network did not impact on this measure, a train service could still experience significant delays but still be classed as 'healthy'.

QR Network proposed a simpler reporting arrangement to better reflect the extent to which train services arrive at their destination within a prescribed threshold. Accordingly, reporting of healthy and non-healthy train services will be replaced with reports on train services which reach their destination within an allotted time (i.e. are on-time or not on-time). The allotted thresholds are consistent with current reporting arrangements.

Additionally, operational data will now be published quarterly with a below-rail transit time (BRTT) average reported for each system. BRTT measures the time taken by a train service to complete a given journey, inclusive of any delays caused by QR Network (QR Network, sub. no. 1: 90-91).

Stakeholders' Comments

QR Freight argued that the reporting regime could be made more relevant or could be made clearer. For instance, it suggested that QR Network should publish the methodology utilised to measure the BRTT variable and QR Network should demonstrate the impact of this performance indicator on rail capacity. In addition, it argued that a set of standard network performance indicators should be included to provide a level of transparency on QR Network's performance as part of the supply chain, *inter alia,* assessing the impact of planned and unplanned maintenance outages on the system; reporting at the point of interface between network and other supply chain elements (mine, above-rail and port in-loading). However, it is noted that no particular set of indicators were proposed (QR Freight, sub. no. 37: 25).

Asciano indicated that the thresholds proposed by QR Network for reporting on-time arrivals for passenger and general freight trains appear unduly broad. Asciano submitted that these measures should be revised and suggested alternative thresholds (see Table 9.1) (Asciano, sub. no. 33:35-36).

Table 9.1: On-Time Thresholds

	QR Network's Proposal (minutes)	***Asciano Proposal (minutes)***
Long Distance Passenger Trains	60	15
Coal Trains	30	30
Bulk and General Freight Trains	60	30

Authority's analysis and draft decision

Overall, the proposed quarterly public reporting requirements are more informative, in particular the proposal to disaggregate performance variables by individual coal systems. This should enhance transparency and thereby improve the ability of all stakeholders to identify performance issues facing each system. Separately, the proposal to replace reporting of healthy and non-healthy trains by a simpler reporting arrangement of on-time or not on-time train arrivals seems reasonable. This indicator will be complemented by a reporting of the average delay per 100 kilometres and disaggregated by the causes for delay.

The Authority accepts QR Freight's view that the methodology used to derive the BRTT variable should be published and, in this regard, requires that QR Network publish the approach (including commentary) used to estimate the BRTT in its quarterly report.

The Authority notes QR Freight's concerns to monitor supply chain performance. In particular, the Authority accepts that a consistent set of supply chain performance indicators will be an integral part of identifying the causes of poor or good performance. Therefore, they should be part of any plan to continually improve the performance of the supply chain.

However, this undertaking can only impose obligations on the operator of the declared infrastructure. Development of performance indicators for other elements of the supply chain will require the cooperation of all other coal chain participants.

In this context, it is noted that the Dalrymple Bay Coal Chain Board (DBCCB), through the Long Term Solution (LTS) working group, is developing a consistent set of performance indicators for the Dalrymple Bay Coal Chain (DBCC). It is not yet clear whether the relevant performance indicators for the rail network will need to be formally embodied into the

undertaking or extended beyond the DBCC. Given this uncertainty, the Authority believes it would be premature at this time to require the inclusion of additional whole-of-coal-chain performance indicators into the undertaking. However, it will be necessary to incorporate relevant supply chain performance indicators within QR Network's current reporting arrangements once they are finalised by the LTS working group.

The Authority notes Asciano's concerns regarding thresholds for on-time arrivals. However, allowing a tolerance of 60 minutes for long distance passenger and general freight train services seems reasonable relative to the duration of such journeys. For instance, majority of bulk freight train services travel with a transit time of well over 24 hours. It is also noted that the relevant thresholds for on-time arrivals are consistent with the approach used during the previous undertaking.

Accordingly, the Authority does not believe that a compelling case has been made to require QR Network to alter the current thresholds for on-time arrivals. It is, however, open to stakeholders (especially Asciano) to provide the Authority with details of on-time performance for freight railways generally, and specifically in Australia over long distances. In such case, the Authority would be willing to revisit this issue.

Annual Reports

QR Network's Proposal

QR Network's 2009 DAU requires QR Network to annually produce public reports on: QR Network's financial performance; regulatory asset base; and maintenance expenditure for the subject year. In regards to maintenance expenditure, QR Network proposed to continue reporting aggregate maintenance cost for each system – with explanations for significant variations between the actual and forecast expenditure for each system by category, including facilities, structures and track, telecommunications and electric overhead (QR Network, sub. no. 1:89,91).

These requirements are similar to the 2008 undertaking with minor amendments intended to improve the relevancy and effectiveness of the reporting regime. In particular, QR Network is required to report on its provision of preliminary information to access seekers at the start of the process to gain access to the network. This information has tended to cover information relating to civil infrastructure, telecommunications, signals and operational systems etc. QR Network noted that all of the relevant information has been published on QR Network's website. As a result, QR Network has proposed to amend the performance measure so that it only reports on the number of requests received and the average time taken to provide preliminary information. QR Network would no longer be required to provide information on the average delay in providing preliminary information, since this information is now available electronically on request (QR Network, sub. no. 1: 92).

Finally, QR Network submits that only a small number of billing complaints were received during the 2008 undertaking. Therefore, QR Network proposes that information on such complaints be disclosed on an annual rather than quarterly basis (QR Network, sub. no.1: 91).

Stakeholder Comments

The QRC argued that the public reports on maintenance activities in central Queensland should be based on the quantum of works undertaken and not the maintenance costs incurred. The QRC argued that this would improve the accountability and transparency surrounding QR Network's maintenance activities (QRC, sub. no. 38: 37).

Authority's analysis and draft decision

The Authority considers QRC's concerns regarding public reporting of maintenance activities are reasonable.

QR Network's maintenance expenditure has consistently increased during the previous undertaking. In fact, during this period, maintenance expenditure has always been greater than the corresponding forecast costs.

It has, therefore, been difficult for interested parties to gain a good understanding of the state of the network as a number of counteracting factors have been at play.

On the one hand, QR Network has indicated that unit costs had risen by more than anticipated as a result of the heated market conditions that existed in central Queensland in the recent past. QR Network has also indicated that it has adopted more expensive maintenance practices with a view to minimising disruptions to train services and, therefore, to maximise throughput on the network.

Conversely, volumes have consistently been below forecast and some aspects of the network's condition have not improved (e.g. coal fouling of the ballast).

As a result, QR Network has proposed a significant increase in its annual maintenance allowances. This has included significant increases in major program maintenance (e.g. rail grinding) that should lead to productivity improvements and lower costs for routine maintenance activities in the medium term.

It therefore seems reasonable that QR Network reports to stakeholders on how it is performing against the forecast in terms of the quantum of activities undertaken. Reporting of actual costs does not adequately assist in understanding the scope of maintenance undertaken or its quality. Reporting based on the quantum of maintenance activities would facilitate the identification of emerging maintenance deficits and enable a better understanding of future maintenance work plans.

The Authority has discussed this matter with QR Network prior to the release of this draft decision and it is apparent that QR Network is willing to revise its approach and provide a more detailed description of the quantum of forecasted and actual maintenance items. QR Network's main concerns are that it believes that:

(a) confidential information would be disclosed if it were required to publicly release detailed reports on both the quantum and cost of its maintenance activities; and

(b) reports on the quantum of activities performed may not always fully explain the sometimes complex trade-offs involved in maintaining the coal network (e.g. ballast cleaning and stone blowing to manage the coal contamination of the ballast).

In regard to these matters, the Authority accepts that simultaneously publishing details on the cost and quantum of maintenance activities may result in the disclosure of information that QR Network believes is confidential. Therefore, the Authority is not insisting that QR Network include in its published annual reports details of its maintenance costs.

The Authority also accepts that reports of maintenance activities may be complex and therefore may be difficult for stakeholders outside of QR Network to fully understand. To this extent, it will be a matter for QR Network to include suitable explanatory notes in its reports in order to portray an accurate picture of the maintenance of the network. The Authority also notes that QR Network is required to release its public maintenance cost report, including a detailed

description of forecasted and actual scope items along with the aggregate maintenance expenditure, by the end of October each year.

Decision 9.1

The Authority accepts QR Network's proposed amendments to the quarterly reporting indicators, namely reporting:

- **performance variables by each individual coal system;**
- **on-time train arrivals (rather than measuring healthy and unhealthy train services); and**
- **BRTT performance variable as a percentage of the section running time for each individual system.**

However, the Authority requires that:

- **QR Network provide the methodology behind the calculation of the BRTT performance variable within the quarterly report; and**
- **the public maintenance report include a detailed description of forecasted and actual scope items along with the aggregate maintenance expenditure.**

Maintenance cost index and derailments

QR Network has also proposed developing a maintenance cost index (MCI), to reflect movements in its central Queensland maintenance costs, as discussed in section 6.15. The Authority requires that QR Network provide information on the changes in the MCI, at the same time as it publishes information on its maintenance costs.

The Authority also requires that QR Network report on the effect on its maintenance effort of action taken to restore the network after derailments, as discussed in section 1.9.

Decision 9.2

The Authority requires QR Network add a requirement to the 2009 DAU that it report on the operation of the MCI, by amending Clause 9.2.3(b) as follows:

- **QR Network will:**
  - **report its actual maintenance costs in the subject Year compared to the forecast maintenance costs accepted by the Authority for the purpose of determining Reference Tariffs, and will provide an explanation of significant variations between actual and forecast maintenance costs;**
  - **report the MCI for the subject year including the various indices that it is comprised of, and provide an explanation of significant variations between increases in the MCI and increases in actual maintenance costs in the central Queensland Coal Region; and**
  - **report on the effect on the completion of planned maintenance work of action necessarily taken to restore the network after derailments.**

9.2 Regulatory Reporting

Regular regulatory reporting assists the Authority to monitor and assess QR Network's compliance with the undertaking. It includes more detailed information than is publicly released for information purposes. QR Network's regulatory reporting requirements are designed to assist the Authority in carrying out its functions by clarifying the information QR Network will provide, specifying timeframes for submission of the information and outlining a mechanism for informing the Authority of any non-compliance.

QR Network's Proposal

The 2009 DAU outlines the information that QR Network will provide to the Authority on an annual basis. This is consistent with schedule MB of the 2008 undertaking. It includes the operational data QR Network is required to report, information on capital expenditure and its regulatory asset base, maintenance costs for the subject year as well as any breaches of the undertaking. All of these reports and the arrangements governing them remain unchanged. Separately, QR Network submits that the maintenance expenditure items list will be included in the final undertaking.

QR Network submits that it will no longer submit a responsibility statement along with these regulatory reports. QR Network indicated that it is not aware that the provision of a responsibility statement has improved the transparency and accountability of the relevant information (QR Network, sub. no. 1: 94-95).

Stakeholder Comments

The QRC submitted that the reporting of accurate information is critical to the integrity of the regulatory regime. Accordingly, it believes the requirement to maintain a responsibility statement be re-assessed (QRC, sub. no. 38: 37).

Authority's analysis and draft decision

The Authority agrees with the QRC's view that all regulatory reports must be accompanied with a statement, signed by QR Network's Executive General Manager, assuring the Authority that all regulatory reports are accurate and effectively communicate the intended information.

In discussing this matter with QR Network prior to the release of the draft decision, QR Network indicated that it is willing to include a statement from the Executive General Manager confirming the veracity of the relevant regulatory reports.

Accordingly, the Authority requires QR Network to re-instate the requirement to provide a statement with its regulatory reports, confirming their accuracy.

Decision 9.3

The Authority accepts QR Network's proposal regarding regulatory reports and requires that it amend the undertaking to include an obligation to include an official statement, signed by QR Network's Executive General Manager, confirming the veracity of the regulatory reports.

10. ASSET BASE AND MASTER PLANNING FOR CQCR

Schedule A, formerly schedule FB, sets out the arrangements for the planning and approval of capital expenditure.

QR Network has proposed a number of changes to the capital expenditure approval processes that the Authority is proposing to approve, such as removing the requirement from master plan to be published annually and restructuring of the capital indicator.

The Authority is however proposing to not approve a number of QR Network's proposed amendments, including: annually updating the discount rate applied to the capital carry-forward account, removing replacement capital expenditure from the master plan and deleting provision for approving the asset management plan.

The Authority is also proposing a number of its own amendments including: providing more detailed assessment criteria for the approval of a procurement strategy, providing more detailed obligations for the early consultation with stakeholders on expansion options to be included in the master plan and requiring QR Network to have regard to any whole of coal chain master plans when developing its own master plan.

10.1 Introduction

QR Network has proposed a number of changes to the arrangements governing capital expenditure for coal carrying train services in Queensland, including:

(a) changing the discount factor applied to the balance of the carry-over account when rolled forward to the start of the next regulatory period;

(b) restructuring the capital indicator so that it more closely reflects the forecasted capital expenditure projects in each system in the CQCR;

(c) removing reference to the asset management plan in the undertaking and proposed changes to the review of asset replacement expenditure;

(d) a new procurement strategy, proposed to replace the obligation to provide a procurement policy to the Authority for approval; and

(e) removing the obligation to provide the coal system master plan annually.

10.2 Forecast Capital Expenditure

The 2006 undertaking introduced a mechanism to ensure that QR Network would not be financially disadvantaged (advantaged) if it over (under) spent its forecast capital expenditure over the term of an undertaking. To give effect to this arrangement, schedule FB of the 2006 undertaking required QR Network to maintain a capital expenditure carryover account to record the difference between the depreciation and return on assets assumed for the forecast capital expenditure and the depreciation and return on assets for the actual capital expenditure.

Capital Expenditure Discount Rate

QR Network's proposal

The 2009 DAU's capital expenditure carry-over mechanism is largely, identical to the existing arrangements in that QR Network must:

(a) *maintain a capital expenditure carry-over account* – that records the difference, or balance, between the forecast capital expenditure used for determining reference tariffs and the actual capital expenditure approved by the Authority each year; and

(b) *recoup, or return, the balance via future reference tariffs* – at the end of the regulatory period, the balance of the carry-over account is taken into account when determining the reference tariffs to apply in the next undertaking with the intention of clearing the account over the term of that next undertaking.

QR Network has proposed to change how the balance of the carry-over account is rolled forward to the start of the next regulatory period.

QR Network proposed to apply a specific carry-over discount rate to the annual roll-forward of the capital expenditure carry-over account. The carry-over discount rate would be the approved discount rate, updated at the beginning of each financial year to reflect the prevailing risk-free rate based on the average ten-year commonwealth government bond rate 20 days prior to the financial year (current arrangements do not provide for the approved discount rate to be updated like this).

QR Network considered this necessary to address the risk that the interest rates prevailing at the time of drawing down funds for capital expenditure are different from that set at the start of the regulatory period. For example, during this regulatory period, QR Network maintained that it would be required to finance additional capital expenditure (over and above the capital indicator) at a higher differential rate of 9.84% compared with its approved discount rate of 8.43% (QR Network, sub. no. 11: 104-105).

Stakeholders' Comments

The QRC supported removing QR Network's risk regarding the capital expenditure carry-over by means of an annual reset of the time variant parameters of the WACC (QRC, sub. no. 38: 57).

Asciano considered that an annual update of time variant parameters of the WACC had merit. Asciano stated that it could be argued that currently we are in unusual financial times and these conditions would be unlikely to remain over the entire regulatory period and thus setting the cost of capital based on the market today is unlikely to reflect market conditions over the next four years. However, Asciano did note that this would reduce QR Network's risk profile and this change should be reflected in QR Network's allowable returns (Asciano, sub. no. 33: 43).

Authority's analysis and draft decision

The Authority does not accept QR Network's proposal. It will result in a different level of return applying to planned expenditure (the rate set at the beginning of the undertaking) and expenditure that differs from that planned (a rate set annually). The Authority believes that retaining a single WACC rate to apply to capital expenditure will create the appropriate incentive for QR Network to plan and execute its capital expenditure program.

In addition, QR Network will need to remove the definition of the carryover discount rate in its undertaking. The balance in the capital expenditure carryover account at the end of each year will be rolled forward at the discount rate which is consistent with the Authority's WACC decision in section 1.3)

Decision 10.1

The Authority requires QR Network to remove the definition of Carryover discount rate in its 2009 DAU.

Decision 10.2

The Authority requires QR Network to amend clause 5(d) in its 2009 DAU to read as follows:

"The balance in the Capital Expenditure Carryover Account at the end of each Year will be rolled forward at the ~~Carryover~~ Discount Rate."

Capital indicator restructure

To derive the reference tariffs for the 2008 undertaking, schedule FB set out how the global forecast capital expenditure would be allocated, namely:

(a) 25% was allocated to electrical infrastructure (split evenly between the Goonyella and Blackwater Systems); and

(b) the remaining 75% was allocated to non-electrical infrastructure, split 40% to the Blackwater System, 40% to the Goonyella System, 15% to the Moura System and 5% to the Newlands System.

QR Network's proposal

QR Network has proposed to allocate the capital indicator in line with the yearly forecast of capital expenditure in each system. Under this proposal, the global capital expenditure dollar value will no longer be smoothed over the four year regulatory period. Instead, the indicator is intended to reflect the allocation amongst the systems based on the proposed capital projects in each system in the CQCR (see Table 10.1).

Table 10.1: UT3 Proposed Capital Indicator versus UT2 approach

Year	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*Total*
UT3: Total Capital Indicator ($000)	670	429	107	141	1,347
UT2: Total Capital Indicator ($000)	337	337	337	337	1,347

QR Network noted that this is a more aligned profile and should reduce the adjustment for future tariffs following the reconciliation of the capital expenditure carryover mechanism at the end of the 2009 undertaking (QR Network, sub. no.11: 99-103).

Stakeholders' comments

Asciano commented that it preferred using of a genuine annual price setting mechanism and therefore a 'capital indicator' is not required. However, it also stated that, if there has to be a 'whole of term' pricing approach, then the capital indicator proposed for the 2009 DAU is appropriate (Asciano, sub. no. 33:43).

Authority's analysis and draft decision

The capital indicator is merely a provision for the purposes of calculating reference tariffs. The rationale for adopting a simple allocation method in the 2006 undertaking was to emphasise that the capital indicator was simply a forecast expenditure amount for pricing purposes only and carried with it no sense that it had been considered for prudency to be included in the regulatory asset base. QR Network's proposal does not affect this.

The Authority also accepts that, to the extent the forecast capital indicator amount is reasonable (see chapter 1) and closely aligns with expenditure envisioned in the coal system master plan, the proposed change will reduce the size of the capital carry over account at the end of the term of the 2009 DAU.

Accordingly, the Authority accepts the proposed changes to the capital indicator.

10.3 Asset replacement expenditure and removal of the asset management plan

Schedule FB of the 2008 undertaking set out detailed criteria for the Authority to assess whether the scope of a capital expenditure project was prudent. The Authority's assessment against those criteria would occur after the expenditure had occurred and would relate to expenditure that was intended to expand capacity or to replace existing assets (e.g. it had either become obsolete or had reached the end of its useful life).

In addition, Schedule FB sought to address QR Network's regulatory risk concerns by providing different mechanisms for the Authority to pre-approve expansion or replacement capital expenditure.

In relation to replacement capital expenditure, schedule FB provided for the Authority to pre-approve replacement capital expenditure where it was consistent with a pre-approved network asset management plan and where the amount expended was consistent with the age and composition of assets in the CQCR.

Over the term of the 2006 and 2008 undertakings, QR Network never sought the Authority's approval for a network asset management plan nor for the pre-approval for replacement capital expenditure.

QR Network's Proposal

QR Network has removed reference to the network asset management plan from schedule A of the 2009 DAU. According to QR Network, the objective of the network asset management plan was to describe the general standards QR Network applied in determining whether to incur capital expenditure by replacing assets within the regulatory rate base or maintain the existing assets. It was not intended for the network asset management plan to be binding upon QR Network nor was it intended to signify prudency of QR Network's capital expenditures.

QR Network noted that the plan was meant to act as a guide to aid in the Authority's assessment of the prudency of scope of the planned asset replacement expenditure (QR Network, sub. no. 1: 123).

In line with this deletion, QR Network has proposed to change the terms under which the Authority pre-approves the scope of replacement capital expenditure. Under clause 3.1.1(a) of Schedule A, QR Network states that the Authority will pre-approve the scope of replacement capital expenditure if that expenditure is consistent with the asset age and composition of assets in the CQCR (QR Network, sub. no. 25:112).

QR Network has removed the following wording from clause 2.2(a)(i) in schedule FB, which is now clause 3.1.1(a)(i):

> *However, the QCA retains the right to review the composition of Asset Replacement Expenditure (QR Network, sub .no. 25:112).*

That is, QR Network has removed the Authority's right to review the composition of asset replacement expenditure.

QR Network has also removed wording referring to the obligation to include information on the asset replacement expenditure in the master plan.

Stakeholders' comments

The QRC indicated that the quantum of the asset replacement expenditure, system wide and telecommunications capital expenditure is in the order of $140 million over the period of the undertaking. The QRC stated that this is a significant sum and, in the absence of information, industry relies on the QCA to determine whether it is reasonable.

Authority's analysis and draft decision

The onus is upon QR Network to demonstrate to the Authority that all capital expenditure has been undertaken in a prudent manner, whether that be expansion expenditure or replacement expenditure.

The Authority believed that the arrangements for the pre-approval of replacement capital expenditure in the 2008 undertaking were reasonable. In particular, they provided for the Authority to simply focus on whether the level of expenditure was consistent with the age and composition of assets, provided that expenditure had been planned and undertaken in accordance with an approved asset management plan.

The Authority accepts that it is QR Network's discretion on whether they submit an asset management plan for approval or seek pre-approval for the scope of replacement capital expenditure undertaken in accordance with such a plan.

However, the Authority does not accept that the criteria for pre-approving replacement capital expenditure be watered down simply for the Authority to consider whether the amount of expenditure was consistent with the age composition of assets in the network. While such an arrangement might provide an indication that QR Network had expended a reasonable amount on replacement capital expenditure; it could provide no assurance to the Authority or to users of the network that the right assets were being replaced or that QR Network was achieving value for money.

Accordingly, the Authority requires the clause relating to the approval of a network management plan be reinserted into schedule A of the 2009 DAU and that the criteria for pre-approval of replacement capital expenditure should also refer to expenditure undertaken in accordance with an approved asset management plan.

The Authority also does not agree with the removal of asset replacement expenditure from the master plan as it believes its removal will reduce the transparency for stakeholders of a key element of QR Network's capital works program.

Decision 10.3

The Authority requires QR Network to amend its 2009 draft access undertaking such that:

- **QR Network's provision of its strategic asset management plan to the QCA is retained (clause 2.1(e) of schedule A of the 2008 undertaking);**
- **clause 3.1.1(a)(i) of the 2009 DAU is amended by including the following words at the end of that subparagraph "and asset replacement is in accordance with QR Network's Asset Management Plan." (which used to appear in clause 2.2(a)(i) of Schedule A of the 2008 undertaking);**
- **the words "and consistency with QR Network's Asset Management Plan" are added to 3.2.2(c)(iv) of the 2009 DAU (so that it must be regarded to in assessing the prudency of scope of a capital expenditure project); and**
- **QR Network's Asset Management Plan is included in the list of matters which the QCA is required to have regard to in assessing prudency of costs (3.2.4(c) of the 2009 DAU)**

Decision 10.4

The Authority requires that the wording of the 2008 undertaking relating to replacement capital be reinstated in the DAU by:

(a) re-including references to, and the definition of, Asset Replacement Capital Expenditure;

(b) re-including the requirement for the coal system master plan to include Asset Replacement Expenditure categorised separately from General Expansion Capital Expenditure; and

(c) re-including the express wording from the 2008 undertaking regarding the Authority's ability to review the composition of the asset replacement expenditure (in clause 3.1.1 of the 2009 DAU).

10.4 Acceptance of capital expenditure into the regulatory asset base

Part 2 of schedule A of the 2009 DAU outlines the general capital expenditure approval process. It sets out processes for the Authority's approval of the scope, standard and costs of works whether in "real time" as the project is under way or once the project has been commissioned.

QR Network has regularly relied on the customer vote process to gain regulatory pre-approval for the scope of projects. However, to date, QR Network has not availed itself of the provision for the Authority to assess the prudency of costs by auditing the contract tendering processes.

In recent applications for approval of capital expenditure, QR Network has sought approval for parts of projects. While that has largely been costs associated with either post-commissioning

works or costs accrued following commissioning, its most recent application for 2008-09 includes requests for approval for feasibility studies.

It is difficult to benchmark the efficiency of costs of partly completed projects. For this reason, the DBCT undertaking makes it clear that the Authority either assesses compliance with a procurement strategy or it assesses costs once the project has been completed.

The 2008 undertaking and the 2009 DAU lack the same clarity on this issue.

As a result, the Authority is proposing to introduce more detail into schedule A of the 2009 DAU for assessing capital expenditure in accordance with an approved procurement strategy (see section 10.5).

At the same time, the Authority is proposing that the ex post assessment of costs be limited to circumstances either where a project has been commissioned or has been cancelled and QR Network is seeking approval for preliminary costs (e.g. feasibility studies) that were prudently incurred.

These proposals will bring the QR Network undertaking into line with the arrangements in the DBCT undertaking.

Decision 10.5

The Authority requires QR Network to amend clause 2.4 of schedule A of its 2009 DAU to read as follows:

2.4 The QCA will consider for inclusion in the Regulatory Asset Base any capital expenditure on commissioned projects or projects that have been formally discontinued. The Authority will not consider for inclusion in the Regulatory Asset Base any capital expenditure on projects that have either not been commissioned or have not been formally discontinued. The QCA will either:

(a) advise QR Network in writing that it has approved the capital expenditure for inclusion in the Regulatory Asset Base; or

(b) if the QCA is considering refusing approval for the inclusion of an element of QR Network's capital expenditure in the Regulatory Asset Base, the QCA will give to QR Network a preliminary notice of the QCA's decision, stating the reasons and the way it considers it appropriate to adjust the amount of the capital expenditure.

10.5 Procurement strategy and policy

Schedule FB of the 2008 undertaking provided for QR Network to submit a procurement policy to the Authority for approval which, amongst other things, was meant to provide a framework around:

(a) the choice QR Network makes regarding a particular procurement option, e.g. tender for individual project, alliance contracting or internal provision of services;

(b) the mechanisms QR Network will use to ensure it achieves value for money in its procurement; and

(c) the manner in which QR Network can demonstrate that it has followed this procurement policy.

Again, the purpose of the procurement policy was to seek to streamline the Authority's assessment of the efficiency of the costs of an expansion project and to provide QR Network with greater confidence that, having followed the terms of an approved procurement policy, the costs of an expansion project will be included in the regulatory asset base. A similar arrangement was successfully implemented for the stage 7x expansion of DBCT.

QR Network's proposal

QR Network has proposed to remove the requirement to submit a procurement policy. In its place, QR Network has proposed to seek regulatory pre-approval of a procurement strategy on a project by project basis for part or all aspects of the project. Under this proposal, if the Authority pre-approves the scope of a project, QR Network would then seek the Authority's endorsement of all or part of QR Network's procurement strategy (QR Network, sub. no. 25:113).

In return, clause 3.1.3(b) of schedule A states that the Authority must:

> *(i) consider a submission made under Clause 3.1.3(a) taking into account the likely outcomes of QR Network's compliance with that procurement strategy and the requirements for prudency of costs set out in Clause 3.2.4; and*
>
> *(ii) notify QR Network:*
>
> *(A) whether the procurement strategy is approved; and*
>
> *(B) if refused (in whole or part), stating the reasons for its refusal.*

QR Network stated that the approval of a procurement strategy under this new process will alleviate some risk in the assessment of costs for high value capital expenditure costs. QR Network is not proposing that approval of the procurement strategy for a project is analogous to the Authority's approval of the cost of the project, but the strategy would form the basis for the ex-post assessment of cost.

Stakeholders did not comment on this aspect of the 2009 DAU.

Authority's analysis and draft decision

The Authority notes that QR Network is reticent to establish a generalised procurement policy that can be used across a range of contracting forms and for construction works and equipment and materials supplies. It is not clear why this is the case.

Nevertheless, QR Network does seem willing to provide a procurement strategy on a project-by-project basis, where the Authority can approve all or a part of the procurement strategy for a project that has already received the Authority's approval of scope.

The purpose behind the development of the procurement policy/strategy was to reduce regulatory uncertainty in respect of proposed capital expenditure. In particular, it would allow the Authority to assess aspects of the strategy while the works are in progress rather than waiting until the project has been completed and undertaking an ex-post benchmarking assessment. To date, a similar process has been successfully implemented for the stage 7x expansion at DBCT.

The Authority considers that, if QR Network chooses to seek pre-approval of scope for a project, the procurement strategy must be well documented and be provided well in advance of when QR Network requires approval (6 months). In order to facilitate this assessment, the Authority believes that the assessment framework in the undertaking must be robust. In particular, QR Network must demonstrate that the proposed procurement strategy will:

(a) provide value for money;

(b) ensure that all decisions associated with awarding and managing a contract are made with reference to pre-defined assessment criteria; and

(c) decisions are recorded so compliance with the strategy can be audited.

The Authority has, therefore, proposed amendments to schedule A of the 2009 DAU to achieve these objectives.

Decision 10.6

The Authority requires that QR Network amend its 2009 DAU to amend clause 3.1.3(b)(i) to read "consider a submission made under Clause 3.1.3(a) in accordance with the principles set out in clause 3.1.3(c)"; and include the following new clause as 3.1.3(c) in line with the detailed drafting provided in appendix 10.

10.6 Master plan and stakeholder consultation

In response to the issue of regulatory uncertainty regarding capital expenditure, the master planning process was introduced into the 2006 undertaking. At that time, stakeholders considered that the access undertaking should formalise a capital expenditure 'master planning' process to provide a basis for informed consultation and decisions on expansionary capital expenditure. In its 2005 final decision the Authority noted that a master planning process involved [p.41-42]:

(a) placing obligations on QR Network to provide information to stakeholders on capacity requirements, infrastructure expansion options and proposed capital expenditure; and

(b) providing certainty for QR Network that capital expenditure undertaken in accordance with the master plan, and supported by stakeholders, would be accepted as prudent and efficient by the Authority and would not be subsequently be optimised out.

The Authority also considered that QR must establish a robust internal process and provide for stakeholders to be involved in informed capacity expansion decision processes which should be formalised in the undertaking as follows:

- *require QR to provide specified information to stakeholders in accordance with a timeline, including a detailed capital expenditure plan that is supported by sound processes and documentation and relevant analysis;*
- *ensure a transparent process by giving stakeholders the opportunity to participate in informed decisions based on access to relevant information and involvement in capacity modelling;*
- *establish the conditions under which QR's costs will be considered efficient; and*
- *give QR confidence that they will not bear inappropriate risks by specifying a process for QR's capital expenditure proposals to be approved by stakeholders and thereby accepted by the Authority, with scope for the Authority to be involved as necessary.*

QR Network's Proposal

QR Network has proposed to remove the requirement to provide the Master Planning forum with an updated Master Plan in June of each year. QR Network noted that:

> *This obligation was included within this document to require QR Network to discuss expansion options with Customers at least on a yearly basis, in order to increase transparency around the enhancement of Rail Infrastructure on the CQCR (QR Network, sub. no. 1: 124).*

According to QR Network, customers are being engaged in discussions in each system on an ongoing basis. Consequently, QR Network stated that it should no longer be obliged to produce the master plan on a yearly basis. Rather, it believes that the master plan should be published when it considers that its forward expansions plans are substantially different to the information contained in the most recently published master plan.

QR Network noted that customers have sought a number of long-term system-wide expansion paths which may not necessarily fall within the short term considerations of projects under the current planning framework. However, QR Network says that it is working with customers in order to develop long term expansion options. By not providing the plan each year QR Network will gain a measure of flexibility it wants for its planning process.

QR Network also responded to stakeholders' concerns regarding the transparency of the coal master planning process, in particular its capacity analysis, by stating that the 2006 undertaking already allowed stakeholders the opportunity to seek greater transparency by appointing an external consultant to peer review the capacity analysis. QR Network noted that customers have yet to seek such an appointment. Nevertheless, QR Network indicated it has sought to address stakeholders' concerns during recent consultation processes. (QR Network, sub. no. 1: 122-123). As a result, QR Network has not proposed to alter the master planning consultation processes.

In addition, QR Network has proposed to expand the membership of the Coal System Master Planning Forum to include train operators that are not access holders but who are contracted to an access holder.

Stakeholders' comments

The QRC indicated that QR Network's consultation on the master plan was more like a 'presentation' where final conclusions are revealed to stakeholders rather than a forum used for discussion. QRC also noted that consultation took place too late in the planning process. QRC proposed that earlier consultation which takes place in a 'working group' environment has the potential to provide significantly greater value. QRC proposed the following to help improve the master planning process:

(a) the master planning forum should take place on a more frequent basis than once per year, and should be structured as a 'genuine consultation throughout the planning process', and

(b) greater emphasis should be placed on the requirement to consult, and in good time (QRC, sub. no. 38: 9-10).

Xstrata concurred with QRC's position that the absence of consultation with stakeholders on the development of the coal chain master plan is a limitation on the current master planning process. Xstrata added that:

> *As currently drafted, there is no requirement for QR Network to consult with the Coal System Master Planning Forum in producing the Coal System Master Plan... the coal chain currently suffers from a lack of coordination. Consequently, it is important that the various stakeholders have the ability to*

> *contribute to the creation of an efficient Coal System Master Plan which spans all elements of the coal chain as an integrated system (Xstrata, sub. no. 43: 30).*

Consistent with the comments of other stakeholders, QR Freight noted that while they have historically had informal input into the master planning process, participation has been on an adhoc basis and has not occurred early enough in the process to influence the design of proposed infrastructure changes (QR Freight, sub. no. 37: 17).

With a role as both a customer and an operator on the network, QR Freight said they had practical insights into the early conceptual and detailed design and planning of new and upgraded rail infrastructure. QR Freight suggested that all operators should be involved in the master planning process and input into the process should be formalised through a documented process.

QRC submitted that it appears that much of QR Network's focus is on the regulatory pre-approval aspect – that being the vote for the prudency of the project. QRC said that it understood that this is an important issue for QR Network, but believed that the quality of the analysis that goes into the Master Plan is of far greater importance. QRC highlighted that there should be a distinction made between Master Planning being used as a planning tool versus being used as a risk mitigation tool through use of the customer vote (QRC, sub. no. 38: 9). Thus, QRC suggested that master planning be moved to its own section in the undertaking reflecting that master planning is a critical function and is independent to the pre-approval process.

In contrast, BMA considers that the master plan successfully achieves its purposes to:

(a) improve the transparency and effectiveness of QR Network's capacity expansion planning; and

(b) provide for regulatory approval by users to address QR Network's regulatory risk (BMA, sub. no. 34: 2).

Authority's analysis and draft decision

A formalised master planning process was introduced into the 2006 undertaking to provide a more robust and transparent process for planning network expansions and for the regulatory recognition of the associated costs.

The process allows for QR Network to receive a degree of comfort that expenditure undertaken in line with the master plan, and supported by customers, would be accepted as prudent by the Authority. In exchange for this risk reduction, the Authority viewed that the process should place obligations on QR Network to provide detailed information to stakeholders on capacity requirements, infrastructure expansion options and proposed capital expenditure.

Based on the majority of stakeholder comments regarding the current planning process, concerns still remain regarding the transparency of the process and the apparent absence of a truly consultative planning process. There are also concerns that the coal system master plan is not being used as a 'planning' tool, but as a tool to acquire customer approval of infrastructure spending.

In addition, QR Network's obligations to provide a master plan annually and to provide detailed information for a customer vote process have been complied with to varying degrees.

It is in this context that QR Network has proposed not to provide a master plan annually, but only where substantial changes are being proposed. The Authority is not objecting to this

proposal which will allow, as QR Network indicated, for the master plan to focus on the long term development of the network – a feature which has been deficient in recent master plans.

However, to balance this amendment, the Authority proposes to require QR Network to make reference to the master plan when seeking approval of expansionary capital expenditure by way of customer vote, thus the master plan must remain current and provide an overview of how all planned expenditure will be designed and constructed to meet future demand.

To reduce the incentive to simply use the master planning process as a tool for risk reduction of capital expenditure, the customer voting process will remain linked to the master plan, but need not be housed within the master plan. When seeking approval of system expansion capital expenditure by way of customer vote, QR Network will be required to submit to customers for approval a document which references the project in the master plan. This document will provide sufficient details on scope, standard and preliminary costs. QR Network will adhere to clause 2.2.1(g) of schedule FB when submitting the project for approval.

As was originally intended in the Authority's 2005 decision, QR Network will be required to formally consult with stakeholders on all planning activities, regardless of whether the master plan is submitted each year. Given stakeholder sentiment regarding a lack of process and consultation, the Authority considers that the undertaking should include a more detailed consultation process.

QR Network will be required to:

(a) submit a formalised plan of stakeholder consultation via the Coal Chain Master Planning Forum, including details of continuous consultation throughout the master planning process and the customer voting process.

(b) complete the formalised plan by June 30 of each year and to distribute it to all relevant stakeholders and post on QR Network's website. Stakeholders will have the opportunity to comment on the plan and suggest modifications.

(c) QR Network will provide sufficient time for stakeholders to consider projects for customer approval. The formalised consultation plan will include dates that QR Network expects to request stakeholders to approve capital expenditure. Stakeholders will have opportunity to comment on the timing of the consultation.

Moreover, stakeholders should be told of their options and obligations for approving a project well before QR Network plans to initiate construction (minimum 6 months). Stakeholders should not be 'pressured' into a decision, simply to have infrastructure built to accommodate future tonnages. It is expected that stakeholder options and obligations be communicated during the stakeholder consultation forum and will also form a part of any customer vote documentation sent to stakeholders.

Stakeholders must be well informed of options, costs, timing and their potential benefit. Consultation documents sent to customers requesting approval of a project must contain information for customers regarding their options for approval as set out in clause 2.2.2 in plain spoken language.

Decision 10.7

The Authority requires that QR Network will:

(a) Amend clause 4.1 to include a requirement that by 30 June of each year, QR Network will notify each member of the Coal System Master Planning Forum of a formalised plan for the stakeholder consultations which will occur from 1 July until the next 30 June via the Coal Chain Master Planning Forum, and use its reasonable endeavours to comply with that plan. This plan will include details of continuous consultation throughout the master planning process and the process for customer acceptance of projects;

(b) amend clause 4.2.2 to require that the information provided to Customer Groups will make reference to the Coal System Master Plan for all projects QR Network is seeking approval for by way of customer vote (and to the extent that the scope, standard or estimate cost of the Project is materially different from that in the Coal System Master Plan, publish an updated version of the Coal System Master Plan);

(c) provide an updated Coal System Master Plan to the Authority when required to provide stakeholders with relevant updated information;

(d) ensure consultation documents sent to customers requesting approval of a project pursuant to clause 4.2.2 of Schedule A contain information for customers regarding their options for approval as set out in clause 4.2.3 in plain spoken language and must be provided well before expansion is contemplated (minimum 6 months).

10.7 Whole of coal chain initiatives

QR Network's consideration of whole of coal chain initiatives

In July 2007 the Queensland Government released the O'Donnell review which was brought about to address stakeholder concerns regarding the capacity of the Goonyella Supply Chain. The rationale for the review was to:

(a) assess the current status of the coal chain;

(b) provide recommendations aimed at enhancing capacity to ensure it could meet the needs of industry and;

(c) ensure the supply chain was positioned to satisfy demands of an expanding export market.

QR Network's Proposal

QR Network noted that:

> *Recent and potential future developments in coal supply chain management (e.g. the development of supply chain forums and the outcome of the O'Donnell Review into the Goonyella supply chain) require that the 2009 Undertaking recognises how these specific arrangements have evolved, and might further evolve (QR Network, sub. no.11: 80).*

Accordingly, QR Network proposed a number of changes to the undertaking to address supply chain initiatives, namely:

(a) *schedule A: maintenance of regulatory asset base* – the changes proposed have been developed to ensure that capacity is considered on a forward looking basis for the system as a whole, rather than the minimum capital expenditure increment required for an additional train service on the CQCR.

(b) *chapter 7 and schedule G: network management principles* – the changes are intended to allow for optimisation of supply chain performance. QR Network proposed to introduce a mechanism which would more closely link train scheduling and real time train management with port scheduling.

(c) *chapter 6: pricing principles* – the changes seek to allow for pricing principles to be breached when QR Network can demonstrate that arrangements are beneficial for the supply chain as a whole.

(d) *chapter 9: reporting* – the changes are designed to align of some of the reporting arrangements with other participants on the supply chain.

Stakeholders' comments

The general consensus from stakeholders is that QR Network had not gone far enough to incorporate coal chain initiatives into the undertaking.

According to the QRC, QR Network's consideration of whole of coal chain initiatives needed to be improved. Specifically, QRC submitted that coal chain operating assumptions should form the basis of master planning. The QRC also suggested that QR Network's responsibilities with respect to the coal supply chain be written into the undertaking, which will set out the requirements for its contribution to the coal chain master plan (QRC, sub. no. 38: 11).

Xstrata noted that including coal chain principles in the 2009 DAU will allow for all infrastructure elements of the supply chain to be aligned and consistent. It added that it is critical for supply chain principles to be incorporated into the regulatory and contractual framework for the coal chain to alleviate the mismatches and other issues that currently hamper the functioning of the supply chain. Xstrata commented that QR Network's DAU should be aligned with the approach taken by DBCT Management for their 2009 DAU; that is, including coal chain principles into the undertaking.

Xstrata also noted that the changes proposed in the DBCT Management DAU are required only as a result of the shortcomings of the existing contractual framework and operational structure of the coal supply chain. It considered that the 'joint' or parallel regulatory review provides the opportunity to ensure the consistency of principles across both undertakings as a first step towards achieving alignment and coordination across the coal chain (Xstrata, sub. no. 43: 3).

BMA submitted that it is appropriate and prudent for the 2009 DAU to anticipate the possible establishment of a coal chain coordination process, and to oblige QR Network to cooperate in this process and have due regard to its outcomes. BMA added that it would not be practical or appropriate to require QR Network to adopt the findings of such a process or follow its directions (BMA, sub. no. 34: 1). Moreover, the Authority should have no role in coal chain coordination and this issue is not relevant to the Authority's consideration of the draft undertaking (BMA, sub. no. 34: 2).

Authority's analysis and draft Decision

QR Network has already considered and incorporated some aspects of supply chain optimisation into the 2009 DAU, but stakeholders hold the view that the undertaking has not gone far enough.

While separate infrastructure consultation forums already exist on the northern and southern parts of the Bowen Basin, coal chain coordination in a very formalised sense has only been canvassed in terms of the supply chain for DBCT.

The specific details of this greater coordination of the DBCT coal chain are being formalised by the operations of the Dalrymple Bay Coal Chain Board (DBCCB), in particular through its efforts to develop what is described as the Long Term Solution (LTS). The details of the LTS are not yet finalised and therefore are unable to be incorporated into the 2009 DAU at this time. Nevertheless, there are certain supply chain initiatives and principles which can be considered and recognised.

The Authority considers that this is a reasonable requirement of an access undertaking given the objectives of Part 5 of the QCA Act, which was introduced as part of national reforms of access regulation, namely that:

> *The object of this part is to promote the economically efficient operation of, use of and investment in, infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets.*

Consistent with this, the O'Donnell report, 2008 concluded that the regulatory frameworks which underpin the governance of the supply chain should support a more coordinated approach. However, it went on to say that coordination of the supply chain is a matter to be addressed by the supply chain participants.

In this context, the Authority accepts that it is premature to think that a comprehensive solution to supply chain coordination has been developed and is ready to be introduced into the 2009 DAU. Nevertheless, there are aspects of supply chain coordination that could be included now and provision could be made to include others in the future.

The Authority does not consider it necessary to require that the DBCCB or the central coordinator to be formally 'enshrined' into the 2009 undertaking. However, QR Network will have a working relationship with the central coordinator, and activities undertaken in conjunction with the central coordinator should be acknowledged.

System master plan and coal rail infrastructure master plan

The O'Donnell review emphasised that investment along the supply chain needs to be coordinated. The report also concluded that the regulatory frameworks that underpin the governance of the supply chain must support this coordination:

> *A coordinated approach to master planning of infrastructure is essential. The situation where investments are being made without concurrent investment in other parts of the supply chain and then additional forecast tonnages are contracted out should never be allowed to happen again. The regulatory frameworks that underpin the governance of the supply chain should support this approach (O'Donnell, 2008: 7).*

Since the release of that report, coal chain participants have worked together to reach agreement on a number of principles intended to guide infrastructure development on the DBCT coal supply chain. This includes the development of a coal chain master plan as part of the "Long Term Solution", based on the following principles:

> ***Investment in infrastructure to be guided by a System Master Plan and triggered by contracts such that new/growing producers can access capacity with reasonable notice.***
>
> *6. The System Master Plan will evaluate and identify the most efficient investment options (from loadpoints to port to system rules) for increasing coal supply capacity from a cost and risk perspective.*
>
> *7. Capital investments in new infrastructure:*
>
> > *a. Must be guided by the System Master Plan for the coal chain*
> >
> > *b. In the case of track and port infrastructure, must be undertaken where a commercial level of underwriting is offered via long-term take or pay contracts and agreed investments triggers are identified (Xstrata, sub. no. 43: 10).*

QR Network's proposal

When it submitted the 2009 DAU, QR Network noted that the implications of the O'Donnell review for a coal master planning process had yet to be confirmed. QR Network was not aware of discussions that would have impacted on the 2009 DAU, but stated that some general amendments were made to the master planning process to address issues which had arisen to date to ensure that QR Network's process could exist with the framework agreed for the Goonyella supply chain.

In Schedule A, QR Network indicated it would participate in any whole of supply chain planning group that is established if it considers it has sufficient participants to effectively develop and implement a whole of supply chain master plan. QR Network also stated that such participation would not limit QR Network's rights and obligations in the preparation and implementation of the Coal System Master Plan.

QR Network also noted that when the long term solution framework was finalised this may require amendments to the 2009 DAU (QR Network, sub. no. 1: 23-23).

Stakeholders' comments

Stakeholders generally supported QR Network's participation in coal chain planning groups, but there are mixed positions on whether participation should be a formal requirement in the undertaking.

Xstrata submitted that the undertaking should require QR Network to participate in establishing a Coal Chain Master Plan for each of the Queensland coal chains being served by its infrastructure network. Xstrata also offered that QR Network should be compelled via the undertaking to establish a master planning function in cooperation with the Queensland port service providers, above rail operators and producers (Xstrata, sub. no. 43:13).

QRC commented that although participation in coal chain planning groups is desired, a formal requirement for participation is not a suitable solution. Since the mechanisms and forums used to achieve coal chain coordination and efficiency are continually evolving, QRC preferred to see flexibility designed into any rules developed in the 2009 DAU regarding QR Network's participation in these activities. QRC believed that this flexibility would allow QR Network to respond to the views of stakeholders over time (QRC, sub. no. 38: 9).

QR Freight suggested the 2009 DAU be broadened to include the recognition of QR Network's role as a partner in transport supply chains. QR Freight suggested the addition of the following objective for QR Network:

> *To work cooperatively with all elements of the transport supply chain to maximise freight throughput across the supply chain on an annualised basis (QR Freight, sub. no. 37: 6).*

Stakeholders also commented on the sufficiency of the current standalone coal master planning process in light of the industry's activities to progress central planning of the Goonyella supply chain.

QRC and Xstrata shared the view that a standalone coal master plan, that does not consider the remainder of the supply chain, is not satisfactory.

Xstrata submitted that it is not sufficient to produce a standalone master plan for the rail network that operates in isolation to the remainder of the coal chain. Xstrata noted that a planning process must ensure that the design of the coal chain as a whole should be optimised initially from a system perspective and only then can the appropriate investments for track infrastructure can be integrated into that system master plan (Xstrata, sub. no. 43:14).

Xstrata added that it is critical that design and investment in track infrastructure occurs on an aligned basis where the port is required to operate on a cargo-assembly basis and that:

> *Failure to adopt this system wide approach to investment planning creates substantial risk that capacity will not be delivered as expected/required and risks perpetuating the current environment where more access is contracted than the system is capable of delivering (Xstrata, sub. no.43: 14).*

The QRC argued that QR Network has a vital role to play in the long term and short term coordination of the system. Specifically, QRC considered that the QR Network master plan is critical to the long term planning of coal chain expansions as this is currently the only process, at this time, that seeks to model and assess 'whole of coal chain' expansion options. However, QRC expressed concern that QR Network's master plan is perceived as a track corridor plan which takes into account other elements of the supply chain only at a high level, rather than being a genuine master plan of the integrated coal chain (QRC, sub. no. 38:9).

Supporting this view, Concept Economics stated that integrated planning in any system is a key starting point for investment or enhancement. Concept Economics argued that there should be a mechanism to coordinate the investment plan along each of the links in the chain. It explained that while this form of coordination would usually take place within a firm, a supply chain lacks the integration required to evaluate the options and trade-offs between capacity alterations at mines, rail and port. To replicate the coordination function performed within a firm, the report suggested that a single entity (e.g. a coal chain planning body) should make investment decisions or whose function is the development of a 'whole of chain' system plan (Concept Economics, sub. no. 35: 15).

QRC suggested that in the future, coal chain master planning could be undertaken by either QR Network or a 'coal chain master planning group', where the group would have staff with appropriate expertise and would be actively supported by QR Network and other coal chain participants. Taking into account that the development of a planning group may not materialise in this regulatory period, QRC suggested that the master planning process be improved and include areas in the undertaking where the QR Network master plan should have regard for the coal chain master plan, in the event that one is developed.

Specifically, the QRC would like to see:

(a) the master plan redefined so QR Network is provided with guidance on the purpose and expected content of the plan in relation to the coal supply chain; and

(b) coal chain operating assumptions, which form the basis of the QR Network master plan, being determined with current and future coal chain participants (QRC, sub. no. 38: 9-11).

Asciano noted that in contrast to QR Network's approach to master planning, the ARTC preliminary draft undertaking showed very close links between system capacity and rail capacity, for both planning and allocation purposes. Asciano stated that to the extent that functions such as centralised coal chain planning are not currently in place to support links between system and rail capacity, the 2009 DAU should provide for the future development of such links (Asciano, sub. no. 33: 22).

ARTC said the coal chain participants had a role in planning of coal chain capacity, including:

(a) mapping of demand for export coal against optimal capacity improvements for the coal chain as a whole; and

(b) delivering individual infrastructure providers with necessary coal chain information on which to base investment strategies and seek customer commercial underwriting (ARTC, sub. no. 32: 6).

BMA said it was appropriate and prudent for the rail undertaking to anticipate the possibility that an industry sanctioned coal chain planning coordination process will develop. However, BMA noted that it would not be appropriate for the undertaking to attempt to establish a coordination process. BMA explained that the master plan facilitates alignment in port and rail contracts by keeping coal chain participants better informed and by facilitating investment. BMA proposed that a more active and direct role would be outside of the legitimate scope of the undertaking (BMA, sub. no. 34: 2).

Authority's analysis and draft decision

The Authority notes the findings of the O'Donnell report that a coordinated approach to master planning of infrastructure is essential. The report is clear regarding concurrent investments on the coal chain:

> *The situation where investments are being made without concurrent investment in other parts of the supply chain and then additional forecast tonnages are contracted out should never be allowed to happen again. The regulatory frameworks that underpin the governance of the supply chain should support this approach (O'Donnell, 2008: 7).*

Given all that led up to the establishment of the O'Donnell review and the commitments that were subsequently made, it is not clear to the Authority why QR Network would restrict its participation in a supply chain planning group.

Notwithstanding QRC's concern regarding flexibility of rules binding QR Network's participation in coal chain forums, the Authority is of the view that, in the event that a system planning group is formed, QR Network must be a participant.

To the extent that rules, guidelines, directions, or findings arise as a result of QR Network's participation in coal chain related groups or forums, QR Network will guide its operation according to those results. If QR Network chooses not to follow guidance provided from the groups, QR Network will need to provide reasons as to why it is not a viable course of action. These explanations need to be included in the documents QR Network provides to customers as part of the vote process via a current coal system master plan.

The Authority considers that this is a reasonable requirement of an access undertaking given that the objectives of Part 5 of the QCA Act emphasise the efficient use and investment in infrastructure.

However, as noted by BMA and QR Network, there is the issue of the extent to which QR Network should be bound by the resolutions of an outside organisation.

All stakeholders appear to agree that the 2009 DAU should acknowledge, and have regard to, the development of a system master plan. In informal discussions with the Authority, QR Network has indicated it will modify the undertaking to acknowledge the development of a system master plan. The Authority is encouraged that QR Network is responding to stakeholders' concerns and urges QR Network continue to develop the master planning framework having regard to the system master plan.

It is the Authority's view that, where possible, the undertaking should facilitate coordination of a coal chain. However, it appears that there is little support for an approach where the undertaking is the forum in which coal chain coordination is established.

The Authority accepts the statement made by BMA that the master plan is designed to facilitate alignment by better informing the coal chain participants and acting to facilitate investment by QR Network. However, as stakeholders have expressed in submissions, the master plan in its current form does not adequately inform coal chain participants and does not facilitate coordinated investment.

As a close comparator, the 2009 Hunter Valley DAU provides for coal chain coordination. It is a stated objective of the ARTC in the Hunter Valley to actively cooperate with and support industry arrangements and forums seeking to optimise coal chain capacity (ARCT, April 2009:4). The undertaking in and of itself does not coordinate, but allows for investment coordination between below rail and port infrastructure.

The Authority is proposing amendments to the 2009 DAU that incorporates a similar approach for central Queensland whereby the undertaking should allow for cooperation and coordination with all coal chain stakeholders.

Decision 10.8

The Authority requires QR Network to insert the following as clause 4.1(b) (and renumber the rest of clause 4.1 accordingly) and amend clause 4.3 to read as shown below:

(b) In the development of the Coal System Master Plan, QR Network must have regard to, and will seek to align the Coal System Master Plan with, any whole of supply chain master plan for coal that may exist in relation to the Central Queensland Coal Region or any Individual Coal System(s). Where there are differences between QR Network's Coal System Master Plan and any whole of supply chain master plan, QR Network will explain the reasons for those differences within its Coal System Master Plan.

4.3 QR Network will participate in any whole of supply chain planning group for coal that may be established in relation to the Central Queensland Coal Region or any Individual Coal System(s) for the purpose of contributing to the coordination and effective performance of the relevant coal supply chain. For the avoidance of doubt, and subject to Clause 4.1(b), participation in a whole of supply chain planning group does not:

(a) limit QR Network's rights and obligations in respect of the preparation and implementation of the Coal System Master Plan or the Coal System Master Planning Forum;

(b) require it to take action which is inconsistent with its commercial objectives; or

(c) impose additional obligations under this Undertaking or inhibit, restrict, fetter or adversely affect QR Network's exercise of discretions, powers, functions or rights it has under this Undertaking

APPENDIX 1 – CQCR REFERENCE TARIFFS AND REVENUE CAPS

Tariff Component	***Blackwater***	***Goonyella***	***Moura***	***Newlands***
AT_1 – incremental maintenance ($/'000 gtk)	0.78	0.54	1.45	1.51
AT_2 – incremental capacity ($/train path)	1,831.70	1160.47	548.59	245.28
AT_3 – allocative component ($/'000 ntk)	4.24	4.36	5.58	3.92
AT_4 – allocative component ($/nt)	1.42	0.92	0.93	0.60
AT_5 – electric infrastructure ($/'000 egtk)	3.88	1.73	-	-
$/net tonne avg ($AT_{1-4}$)	3.71	2.24	2.41	1.74
Premium / Discount ($/ntk)				
Rolleston	1.85			
Minerva	3.76			
Vermont	-1.73			
Stanwell	-1.48			
Revenue Cap Recovery				
2009-10 non-electric $/nt (electric $/'000 egtk)[a]	0.15 (0.48)	0.14 (0.33)	-	0.45
2010-11 non-electric $/nt (electric $/'000 egtk)[b]	-0.11 (1.36)	0.06 (0.29)	0.12	0.16
Revenue Cap – Non-electric (AT_{2-4})($m)	***2009-10***	***2010-11***	***2011-12***	***2012-13***
Blackwater	$203.5	$232.2	$245.6	$255.3
Goonyella	$193.8	$249.2	$270.4	$275.5
Moura	$27.4	$34.5	$35.5	$36.2
Newlands	$20.1	$23.9	$27.1	$25.8
Revenue Cap – Electric (AT_5)($m)				
Blackwater	$47.8	$51.9	$77.2	$80.2
Goonyella	$50.1	$65.2	$71.5	$73.3
Revenue Cap Recovery Amounts ($m)[c]	$43.6	$32.9		

[a] *This is the increment to approved tariffs to recover the revenue shortfall in 2007-08.*

[b] *This is the increment to approved tariffs to recover the revenue shortfall in 2008-09.*

[C] *This is the revenue increment required to recover the 2007-08 and 2008-09 revenue shortfalls.*

Mine by Mine Comparison- Goonyella System

Reference Tariff Components		**Current Tariffs**					**UT3**	
		South	North	West	Gregory	Central	QR Networ	QCA Proposed
AT1 – Incremental maintenance charge	($/'000 gtk)	0.54	0.54	0.54	0.54	0.54	0.54	0.54
AT2 – Incremental capacity charge	$/train path)	1103.16	919.11	919.11	1103.16	919.11	1160.47	1160.47
AT3 – Allocated component 1	($/'000 ntk)	2.60	2.50	2.64	3.08	4.19	5.89	4.36
AT4 – Allocated component 2	($/net tonne)	0.62	0.44	0.73	0.97	0.75	1.24	0.92
Goonyella Mine by Mine Comparison ($/net tonne basis)								
South	Norwich Park – Hay Point	1.71					3.18	2.47
	Peak Downs – Hay Point	1.50					2.74	2.13
	Saraji – Hay Point	1.56					2.89	2.24
	German Creek – DBCT	1.78					3.32	2.57
	Foxleigh – DBCT	1.78					3.32	2.58
	Oaky Creek – DBCT	1.84					3.43	2.66
	Millenium - DBCT	1.40					2.55	1.99
North	South Walker – DBCT		1.07				2.38	1.84
	Coppabella - DBCT		1.08				2.40	1.87
	Burton – DBCT		1.18				2.60	2.01
	Goonyella – Hay Point		1.28				2.79	2.19
	Riverside – Hay Point		1.30				2.82	2.20
	Carborough Downs – DBCT		1.16				2.55	1.98
	Isaac Plains – DBCT		1.19				2.62	2.04
	Moranbah – DBCT		1.26				2.77	2.15
	Moorvale - DBCT		1.14				2.51	1.95
West	Blair Athol - DBCT			1.87			3.33	2.58
Gregory	Gregory – Hay Point				2.40		3.56	2.76
Central	Hail Creek - DBCT					1.81	2.65	2.05

Mine by Mine Comparison - Blackwater

Reference Tariff Components		Current Tariffs						UT3	
		Central	North	Stanwell	Rolleston	Minerva	Vermont	QR Network Proposed [a]	QCA Proposed
AT1 – Incremental maintenance charge	($/'000 gtk)	0.78	0.78	0.78	0.78	0.78	0.78	0.54	0.78
AT2 – Incremental capacity charge	$/train path)	1831.70	1831.70	1831.70	1831.70	1831.70	2984.00	1831.70	1831.70
AT3 – Allocated component 1	($/'000 ntk)	3.52	-	2.93	6.41	4.32	0.92	6.17	4.24
AT4 – Allocated component 2	($/net tonne)	1.08	2.16	0.54	2.70	1.81	2.15	2.06	1.42
Premiums and Discounts									
Rolleston								1.47	1.85
Minerva								4.17	3.76
Vermont								-3.44	-1.73
Stanwell								-1.95	-1.48
Blackwater Mine by Mine Comparison ($/net tonne basis)									
Central	North Blackwater – Barney Point	3.02						4.78	3.65
	Cook – RGTT	2.97						4.72	3.59
	Curragh – RGTT	2.95						4.69	3.57
	Curragh – RGTT	2.97						4.73	3.60
	Jellinbah – RGTT	2.84						4.53	3.44
	Yarrabee – RGTT	2.84						4.53	3.45
	Blackwater North - RGTT	2.99						4.78	3.62
North	Ensham – RGTT		3.07					5.33	4.07
	Kestral – RGTT		3.04					5.12	3.90
	Gregory – RGTT		3.04					5.14	3.92
	Oaky Creek – RGTT		3.07					5.30	4.01
Stanwell	Curragh – Stanwell			1.72				3.43	2.63

Blackwater North – Stanwell		1.74				3.45	2.64
Rolleston			6.44			6.15	4.98
Minerva to Gladstone				4.95		7.15	5.71
Vermont to Gladstone					4.05	4.32	2.70

Mine by Mine Comparison - Newlands

Reference Tariff Components		**UT2**	**UT3**	
		Current Tariff	QR Network Proposed[a]	QCA Proposed
AT1 – Incremental maintenance charge	($/'000 gtk)	1.51	0.78	1.51
AT2 – Incremental capacity charge	$/train path)	245.28	1160.47	2.45
AT3 – Allocated component 1	($/'000 ntk)	7.12	7.46	3.92
AT4 – Allocated component 2	($/net tonne)	1.01	1.15	0.60
Newlands Mine by Mine Comparison ($/net tonne basis)				
Coppabella – Abbot Point		4.49	4.76	2.94
Newlands – Abbot Point		2.69	3.10	1.75
Sonoma – Abbot Point		2.08	2.55	1.36

Mine by Mine Comparison - Moura

Reference Tariff Components		**UT2**	**UT3**	
		Current Tariff	QR Network Proposed[a]	QCA Proposed
AT1 – Incremental maintenance charge	($/'000 gtk)	1.45	0.95	1.46
AT2 – Incremental capacity charge	$/train path)	548.59	548.59	548.59
AT3 – Allocated component 1	($/'000 ntk)	7.83	8.69	5.58
AT4 – Allocated component 2	($/net tonne)	1.28	1.39	0.93
Moura Mine by Mine Comparison ($/net tonne basis)				
Baralaba – RGTT		3.18	3.29	2.46
Boundary Hill – GPS		2.55	2.67	1.97
Moura – Barney Point		3.24	3.34	2.50
Moura – RGTT		3.18	3.28	2.45

[a] *The QR Network proposed tariffs presented are calculated by the Authority based on QR Network's proposed cost increases and incorporate QR Network's amendments subsequent to submitting the 2009 DAU (EG Revised Volumes and Capital Expenditure).*

APPENDIX 2 – SCOPE AND ADMINISTRATION OF UNDERTAKING

Amend clause 2.2 of Part 2 of QR Network's 2009 DAU as follows:

2.2 Intent

(a) This Undertaking will be consistently applied to all Access Seekers, Access Applications and negotiations for Access.

(b) The intent of this Undertaking is to:

(i) establish processes for Access negotiations and the utilisation of Capacity that are expeditious, efficient, timely, commercial and non-discriminatory;

(ii) establish processes and principles to provide guidance in relation to the pricing and the terms and conditions of Access;

(iii) provide an efficient, effective and binding Dispute resolution process;

(iv) provide that actions pursuant to this Undertaking are consistent with the objectives for rail under section 2(2)(d) of the TIA;

(v) establish principles and processes to guide cooperation with all elements of the coal supply chain to maximise coal throughput across the supply chain on an annualised basis; and

(vi) achieve an appropriate balance between:

(A) the legitimate business interests of QR Network, and pricing principles as provided for in the Act, including:

(1) generating expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service;

(2) receiving a return on investment commensurate with the regulatory and commercial risks involved;

(3) providing incentives to reduce costs or otherwise improve productivity;

(4) growing, developing and investing in QR Network's business to meet existing and forecast demand for Access.

(B) the public interest, including the public interest in having competition in markets; and

(C) the interests of Access Seekers, including in being:

(1) treated in fair, consistent and non-discriminatory manner; and

(2) provided Access on reasonable commercial terms.

(D) proactive cooperation between all elements of the supply chain to promote actions to maximise the coal throughput across the supply chain.

Amend clause 2.3 (e) of Part 2 of QR Network's 2009 DAU as follows:

To the extent that QR Network sells or supplies a Related Operator with electric energy in connection with Access, QR Network cannot refuse to sell or supply electric energy to another Access Seeker, ~~or~~ Access Holder or Railway Operator appointed by an Access Holder. However, the sale or supply of electric energy is not part of Access and, except as specifically referred to in this Undertaking, is not subject the provisions of this Undertaking. Further, despite any other provision of this Undertaking, QR Network will not be obliged to sell or supply electric energy to an Access Holder or Railway Operator appointed by an Access Holder, or to agree to sell or supply electric energy to an Access Seeker or Railway Operator appointed by an Access Holder:

(i) if QR Network is not lawfully entitled to sell or supply electric energy to the relevant Access Seeker, ~~or~~ Access Holder or Railway Operator under the Electricity Act 1994 (Qld) and the Rules; or

(ii) on terms that would be unreasonable or uncommercial.

If a Dispute arises between an Access Seeker, ~~or~~ Access Holder or Railway Operator appointed by an Access Holder and QR Network regarding a refusal by QR Network to sell or supply electric energy or the proposed terms and conditions on which QR Network offers to sell or supply electric energy to the Access Seeker, ~~or~~ Access Holder or Railway Operator the Dispute may be referred to Dispute resolution in accordance with Clause 10.1.

APPENDIX 3 – RING-FENCING ARRANGEMENTS

Amend clause 3.1 (b)(vi) of Part 3 of QR Network's 2009 DAU as follows:

Providing electric transmission infrastructure on electrified sections of the Track to enable Access Holders or Railway Operators appointed by Access Holders to run electric Train Services, and (subject to Clause 2.3(e)) procuring electric energy for traction on electrified sections of the Track, including managing electric energy from other parties, where an Access Seeker, ~~or~~ Access Holder or Railway Operator requests QR Network to provide that electric energy.

APPENDIX 4 – NEGOTIATION FRAMEWORK

Amend clause 4.8 of Part 4 as follows:

4.8 Major Projects

4.8.1 Requests for Access for Major Projects

(a) For the purpose of clause 4.8, "Interested Party" means each person ~~notified~~ who responds to QR Network's call for expressions of interest under Clause 4.8 ~~(e)~~. 2 ~~in respect of the relevant Capacity Allocation Process~~.

(b) Notwithstanding Clauses 4.1 to 4.7, if a request for Access is for Capacity which QR Network reasonably anticipates ~~(i) which~~ cannot be provided in the absence of QR Network investing in a Major Project; ~~or (ii) which significantly impacts on a major Project that is being investigated,~~ then QR Network may reject that request for Access.

(c) If QR Network rejects a request for Access in accordance with Clause 4.8.1(b), QR Network will give a notice in writing to the Access Seeker that:

(i) The request for Access relates to a proposed Major Project;

(ii) No requests for Access are being accepted by QR Network in respect of that major Project; and

(iii) The Access Seeker's details (and, if provided with the request for Access, the details of its Customer (if any)) will be retained by QR Network so that QR Network can:

(A) include them in any future call for expressions of interest about the anticipated Major Project (or any materially similar major Project); or

~~(B)~~ notify them if QR Network will otherwise accept requests for such Access. ~~advise them of future of future developments in relation to the Major Project (including the process, if any, for the allocation of Capacity arising from that Major Project); and~~

(iv) ~~outlines the process for QR Network's investigation of the Major Project (including any requirements in accordance with Clause 4.8 (d)).~~

4.8.2 Calls for Expressions of Interest

(a) If following preliminary investigations, QR Network is satisfied that further investigation of a proposed Major Project is commercially warranted, and that the Capacity created should be allocated in accordance with this Clause 4.8, it must call for expressions of interest in acquiring Access to Capacity that would be created by that proposed Major Project, in the manner described in this Clause 4.8.2.

(b) QR Network's call for expressions of interest in a proposed Major Project must:

(i) contain information reasonably required for Access Seekers to assess the proposed Major Project, including for each of the major options being considered for development of the Major Project;

(A) further investigations regarding the feasibility or design of the Major Project that QR Network proposes to undertake;

(B) proposed location of the new rail corridor and ancillary Infrastructure Enhancement projects;

(C) proposed scope and estimated cost of works;

(D) proposed Rollingstock and Train Configurations;

(E) estimates of additional Capacity to be created; and

(F) proposed timeframes for further investigations, development and construction of the works, and creation of the additional Capacity;

(ii) contain details of:

(A) whether QR Network will require that the prudency of scope of the costs involved in the Major Project be pre-approved in accordance with Clause 3.1 of Schedule A prior to deciding to proceed;

(B) any Access Conditions which QR Network will require Access Seekers to agree to before acquiring Access;

(C) any requirement of Interested Parties to fund QR Network's further investigations of the Major Project (which will be considered an Access Condition for the purposes of this Undertaking); and

(D) the Prescribed Factors to be considered by QR Network in allocating Capacity between Interested Parties if there is insufficient Capacity to meet all requests for Access received;

(iii) be published on QR Network's website;

(iv) be sent directly to:

(A) any Access Seeker whose request for Access was rejected pursuant to clause 4.8(b) in relation to the proposed Major Project (or any materially similar Major Project);

(B) any Access Seeker who has previously responded to a call for expressions of interest in relation to the proposed Major Project (or any materially similar Major Project) which QR Network decided not to proceed with; and

(C) any other existing or potential Customer, Access Seeker or Access Holder who QR Network reasonably determines may be interested in obtaining Access to the Capacity to be created by the Major Project (including all Access Seekers and Customers identified in the Capacity Notification Register as seeking Access Rights which could be provided by the Major Project); and

(v) remain open for a period specified in the call, being a minimum of four months from the date of its publication.

(c) The details of Major Projects provided in a call for expressions of interest are indicative only, and do not oblige QR Network to provide Access to Interested Parties in accordance with those details.

4.8.3 Investigation and Decision to Proceed

(a) Nothing in this Clause 4.8 affects QR Network's commercial discretion as to whether it will undertake a Major Project.

(b) Following the call for expressions of interest closing QR Network may, if the Major Project appears feasible based on the expressions of interest received, conduct such further investigations as to design and/or feasibility of the major Project as are required in order to determine whether it wishes to proceed.

(c) The costs of further investigations conducted pursuant to Clause 4.8.3(b) will be borne by:

(i) if Access Seekers are required to fund such investigations pursuant to Clause 4.8.2(b)(ii)(C) – each Interested Party in proportion to the Capacity being sought; or otherwise

(ii) QR Network;

(d) If QR Network decides to proceed with the proposed Major Project it shall:

(i) allocate the Capacity to be created by the Major Project in accordance with Clause 4.8.4; and

(ii) publish on its website, and sent directly to each Interested party who has been allocated Capacity, a notice that includes:

(A) details of the additional Capacity to be created and Capacity allocated to that Interested Party;

(B) location of the proposed new rail corridor and ancillary Infrastructure Enhancement projects;

(C) proposed scope and estimated cost of works;

(D) proposed Rollingstock and Train Configurations;

(E) proposed timeframes for development and construction of the works, and creation of the additional Capacity;

(F) any details of the Major Project which differ from those presented in the call for expression of interest ; and

(G) all other information required to negotiate an Access Agreement with QR Network for the Capacity allocated, including all relevant Additional Information;

(iii) seek to negotiate access in accordance with Clause 4.8.5 with each Interested Party who has been allocated Capacity (or their nominated Railway Operator(s)).

(e) If QR Network decides not to proceed with the proposed major Project it shall publish on its website, and send directly to each Interested Party, the reasons for its decision.

4.8.4 Allocation of Capacity created by Major Project

(a) If sufficient Capacity will be created by the proposed Major Project to satisfy the requests for Access for each Interested Party, QR Network shall allocate capacity to be created by the proposed Major Project to each Interested Party.

(b) If insufficient Capacity will be created by the proposed Major Project to satisfy the requests for Access of each Interested Party, QR Network shall determine which Interested Parties are allocated Capacity having regard to the following factors:

(i) the extent to which each Interested Party has complied and/or indicated it will comply with the Access Conditions required by QR Network;

(ii) the prospects of each Interested Party being in a position to utilise the Capacity sought (including obtaining customers for the product to be railed, access to an unloading facility such as a port, and haulage arrangements);

(iii) the net present value of each Interested Party's request for Access to QR Network;

(iv) the length of contract sought by each Interested Party; and

(v) the amount of Capacity sought by each Interested Party,

(each being a "Prescribed Factor")

(c) QR Network may vary the Prescribed Factors required to be considered in allocating Capacity for a particular Major Project from those prescribed by clause 4.8.4(b) if it obtains the written approval of the QCA for that variation prior to the initial call for expressions of interest. In considering whether to grant approval for such consent the QCA may seek submissions from stakeholders.

(d) QR Network shall:

(i) notify any Interested Party, whose application for Access has not been successful as a result of QR Network's allocation of Capacity under Clause 4.8.4(b), of the reasons for its decision under that Clause; and

(ii) if requested by such Interested Party, includes its details in the Capacity Notification Register as if that request had been made in accordance with Clause 4.7(a).

(e) Within fifteen Business Days after being given a notice pursuant to Clause 4.8.4(d), an Interested Party may refer the matter to the QCA for determination as a Dispute in accordance with Clause 10.1.4, but only the grounds that:

(i) QR Network, in making its decision under Clause 4.8.4(b):

(A) failed to consider one or more of the Prescribed Factors; or

(B) took into account a factor that was not a Prescribed Factor;

(ii) QR Network's decision under Clause 4.8.3(b) was so unreasonable that no reasonable decision maker in its position could have made it.

4.8.5 Negotiation of Access with Interested Parties Allocated Capacity

(a) Once QR Network has decided to proceed with a Major Project it must seek to negotiate an Access Agreement with each Interested party who has been allocated Capacity and can only give a negotiation Cessation notice in the circumstances described in Clause 4.6(a)(i),(ii),(iii), (v),or (iv) (with references to the "Access Seeker's Access Application" being taken to mean the Interested Party's response to the expression of interest).

(b) If the provision of a Negotiation Cessation Notice in accordance with Clause 4.8.5(a) is the subject of a Dispute in accordance with Clause 10.1, it shall be deemed to have been issued in accordance with the timing specified by Clause 4.6(e).

APPENDIX 5 – ACCESS AGREEMENTS

Amend clause 5.1 (h) of Part 5 as follows:

QR Network will execute an access Agreement with an Access Seeker up to two (2) years prior to the commencement of Train Services under the Access Agreement, or such longer period as the Access Seeker and QR Network agree is reasonably necessary bearing in mind the lead time that would be required to accommodate the development of the Customer's (or where the end user is the Access Seeker, the Access Seeker's) infrastructure (such as a Mine) and/or elements of the transport logistics chain, as well as development of rail infrastructure, relevant to the Access Application lodged by the Access Seeker.

APPENDIX 6 – PRICING PRINCIPLES (PART 6 AND SCHEDULE F)

Amend clause 3 of Schedule F, Part B as follows:

3. Annual Review of Reference Tariffs

3.1 Requirement for Annual Review of Reference Tariffs

3.1.1 Prior to the beginning of each Year during the Term (except for the first Year) Reference Tariffs set out in this Part B will be adjusted to reflect:

(a) a variation to the applicable System Allowable Revenue for the relevant Year due to an adjustment to 2nd Year System Allowable Revenue in accordance with Clause 3.3; and

(b) a variation to the applicable System Allowable Revenue for the relevant Year and each subsequent Year during the Term in accordance with Clause 3.1.2.

~~(b) QR Network's review, for the relevant Year, of:~~

~~(i) the applicable System Allowable Revenue, in accordance with Clause 3.1.2;~~

~~(ii) the forecast cost of electric energy for traction; and~~

~~(iii) the applicable System Forecast.~~

~~3.1.2 As part of a review in accordance with Clause 3.1.1(b), QR Network will review the System Allowable Revenue for each Individual Coal System for the forthcoming Year to reflect:~~

~~(a) for that component of System Allowable Revenue that relates to the recovery of QR Network's maintenance costs:~~

~~(i) the impact on the forthcoming Year of the actual change in MCI for the previous Year compared to the forecast change in MCI for the previous Year as calculated in accordance with Clause 3.2.2(a); and~~

~~(ii) where, during the Term, QR Network commissions a new branch line to connect a new loading facility to an Individual Coal System and that new branch line will be operational during the forthcoming Year, the increase in QR Network's forecast maintenance costs for the forthcoming Year in accordance with Clause 3.1.3;~~

~~(b) for that component of the System Allowable Revenue that relates to the recovery of QR Network's operating costs, excluding those costs referred to in Clause 3.1.2(a), the impact on the forthcoming Year of the actual change in CPI for the previous Year compared to the forecast change in CPI for the previous Year as calculated in accordance with Clause 3.2.2(b);~~

~~(c) upon the finalisation of the balance of the Capital Expenditure Carryover Account at the Commencing Date, the difference between the finalised balance of the Capital Expenditure Carryover Account at the Commencing Date and the forecast used for the purpose of determining the Reference Tariffs; and~~

~~(d) upon the finalisation of any connection agreement for a new connection point from the electricity transmission network to QR Network's electric traction system, the difference between the agreed connection cost for that connection point and any amount assumed for the purpose of determining the Reference Tariffs.~~

~~3.1.3 For the purposes of Clause 3.1.2(a)(ii), the increase in QR Network's forecast maintenance costs for the relevant Year is calculated as $25,000.00 per kilometre of new Track.~~

3.1.2 QR Network will submit to the QCA by 28 February each Year:

(a) a revised System Forecast for each Individual Coal System for the next Year;

(b) details of the methodology, data and assumptions used to estimate the revised System Forecast; and

(c) the proposed adjustments, arising from the difference from the System Forecast previously used for the purpose of determining the System Allowable Revenue for each Individual Coal System, to:

(i) the System Allowable Revenue for each Individual Coal System for each subsequent Year during the Term; and

(ii) Reference Tariffs for the next Year.

The QCA will approve the revised System Allowable Revenues and Reference Tariffs if it considers revision to System Forecast is reasonable, and the consequential adjustments are calculated properly. If QR Network does not submit an amendment by 28 February or the QCA does not approve the revisions by the next 1 July, no adjustments to the System Allowable Revenues or Reference Tariffs will be made in accordance with this Clause 3.1.2.

3.1.3 Upon the finalisation of the balance of the Capital Expenditure Carryover Account at the Commencing Date, the System Allowable Revenue for the first Year of the Term will be adjusted by the QCA for the difference between the finalised balance of the Capital Expenditure Carryover Account at the Commencing Date and the forecast used for the purpose of determining the Reference Tariffs.

3.2 Calculation of Revenue Adjustment Amounts

3.2.1 After the end of each Year, QR Network will calculate the following Revenue Adjustment Amounts:

(a) an "AT2-4 Revenue Adjustment Amount", for each relevant Individual Coal System, by subtracting:

(i) the Adjusted System Allowable Revenue for AT2-4, determined in accordance with Clause 3.2.2; from

(ii) the Total Actual Revenue for AT2-4, determined in accordance with Clause 3.2.3, for the relevant Individual Coal System for that Year; and

(b) an "AT5 Revenue Adjustment Amount", by subtracting the Adjusted System Allowable Revenue for the AT5 component of Access Charges, determined in accordance with Clause 3.2.2, for the Central Queensland Coal Region from the Total Actual Revenue for AT5, determined in accordance with Clause 3.2.5, for the Central Queensland Coal Region, for that Year.

For the avoidance of doubt, a Revenue Adjustment Amount calculated under this Clause 3.2.1 may be a negative or a positive number.

3.2.2 The Adjusted System Allowable Revenue for AT2-4 or the AT5 component of Access Charges is the sum of the following components of relevant System Allowable Revenue:

(a) the component relating to the recovery of QR Network's maintenance costs, adjusted to reflect the difference between:

(i) the actual efficient cost of maintenance on new branch lines connecting a new loading facility to an Individual Coal System that become operational during the relevant Year; and

(ii) the forecast costs of maintenance on branch lines connecting a new loading facility to an Individual Coal System that were projected to become operational during the relevant Year;

and for all other maintenance costs, adjusted to reflect the difference between:

(i) the actual change in MCI for the relevant Year; and

(ii) the forecast change in CPI that was used for the purpose of determining the Reference Tariffs for the relevant Year;

(b) the component relating to the recovery of QR Network's costs of electric energy for traction [and connection of QR Network's electrical traction system to the electricity transmission network] adjusted to reflect the difference between:

(i) the actual costs for the relevant Year; and

(ii) the forecast costs used for the purpose of determining the Reference Tariffs for the relevant Year;

(c) the component relating to the recovery of QR Network's operating costs, excluding those costs referred to in Clause 3.2.2(a)-(b), adjusted to reflect the difference between:

(i) the actual change in CPI for the relevant Year; and

(ii) the forecast change in CPI that was used for the purpose of determining the Reference Tariffs for the relevant Year; and

(d) all components excluding those costs referred to in Clause 3.2.2(a),~~or~~ (b) or (c).

3.2.3 The Total Actual Revenue for AT2-4 is the sum of:

(a) total revenue from AT2-4 for coal carrying Train Services that operated on the Individual Coal System in the Year, calculated using:

(i) for a Train Service that is a Reference Train Service, or for which Clause 4.2 applies, the AT2, AT3 and AT4 components of the relevant Reference Tariff;

(ii) for a Train Service that varies from the Reference Train Service due to it not complying with:

(A) Clause 1.3.1(f) of Part A, the AT2 component of the Access Charge (where the Access Charge varies from the Reference Tariff in accordance with Clause 3.2 of Part A) and the AT3 and AT4 components of the relevant Reference Tariff; or

(B) any other part of Clause 1.3 or 1.4 of Part A, other than Clause 1.3.1(f) of Part A (with which it complies), the AT2, AT3 and AT4 components of the relevant Reference Tariff; and

(iii) for a Train Service for which Clause 4.3 applies, the amount of the AT2, AT3 and AT4 components of the relevant Access Charge, that QR Network was entitled to~~has actually~~ earn~~ed~~ over the relevant Year (whether or not actually collected by QR Network);

(b) subject to Clause 3.2.4, the amount of any Take or Pay amounts and Relinquishment Fees (including equivalent amounts payable under a relevant Access Agreement ("Equivalent Amounts")) which QR Network is entitled to be paid in relation to Access Agreements for coal carrying Train Services on the Individual Coal System calculated on the basis that QR Network is deemed to have contracted on the terms of the relevant Standard Access Agreement (as defined under the Applicable Undertaking) that applied on the date of execution or renewal of an Access Agreement except for:

(i) those Access Agreements which have been altered from the relevant Standard Access Agreement in accordance with the relevant Applicable Undertaking, for which QR Network's entitlement to Take or Pay amounts, Relinquishment Fees or Equivalent Amounts will be calculated in accordance with the terms of those Access Agreements;

(ii) a New Access Agreement to the extent entered into as part of transferring Access Rights from an Old Access Agreement executed under or prior to the 2001 Undertaking, pursuant to Clause 7.3.8(a) of the Undertaking, which has not been renewed after the Commencing Date (as defined under the 2005 Undertaking), for which QR Network's entitlement to Take or Pay amounts, Relinquishment Fees and Equivalent Amounts will be calculated on the basis that QR Network has contracted on the terms of:

(A) for an Old Access Agreement executed under the 2001 Undertaking, the relevant Standard Access Agreement (as defined under the 2001 Undertaking) that applied on the date of execution of that Old Access Agreement; or
(B) for an Old Access Agreement executed prior to the 2001 Undertaking, the terms of that Old Access Agreement; and

(iii) for the avoidance of doubt, an Access Agreement executed prior to the 2001 Undertaking, for which QR Network's entitlement will be calculated in accordance with the terms of that Access Agreement,

that QR Network was entitled to~~has actually~~ earn~~ed~~ over the relevant Year (whether or not actually collected by QR Network);

(c) the System Allowable Revenue for AT2-4 in relation to the applicable Individual Coal System which is attributable to assets under an agreement described by Clause 6.5.2(d)(i) of the Undertaking for the payment of a rebate less any rebate which is paid under that agreement; and

(d) any revenue from AT2-4 that QR Network would have been entitled to earn under an Access Agreement in relation to the applicable Individual Coal System during the relevant Year but for QR Network's breach of that Access Agreement or negligence in the provision of Below Rail Services to the extent that such events of breach or negligence resulted in the non-provision of 10% or more of the total number of Train Services for any single origin-destination pair during the relevant year~~for which, in either case, QR Network is liable in respect of a Claim made against it in accordance with that Access Agreement~~.

3.2.4 Subject to the QCA's approval, QR Network may reduce the amount of any Relinquishment Fee (or applicable Equivalent Amount) used to calculate Total Actual Revenue for a Year if its inclusion will have a material effect on the AT2-4 Revenue Adjustment Amount. If QR Network reduces the amount of any Relinquishment Fee (or applicable Equivalent Amount) in accordance with this clause, then the amount of the reduction must be carried forward to a following Year, including a return on capital amount, calculated by reference to the Discount

Rate over the period starting on the first day of the Year in which the Relinquishment Fee (or applicable Equivalent Amount) is received and ending on the first day of the Year in which the Relinquishment Fee (or applicable Equivalent Amount) is included in the calculation of Total Actual Revenue.

3.2.5 The Total Actual Revenue for the AT5 component of Access Charges is the sum of:

(a) total revenue from the AT5 component of Access Charges arising from all Access Agreements in relation to coal carrying Train Services for the Central Queensland Coal Region that QR Network was entitled to~~has actually~~ earn~~ed~~ over the relevant Year (whether or not actually collected by QR Network), calculated using:

(i) for a Train Service for which Clause 4.3 applies, the amount of the AT5 components of the relevant Access Charges; or

(ii) if paragraph (i) does not apply, the AT5 component of the relevant Reference Tariff;

(b) the System Allowable Revenue for AT5 in relation to Central Queensland Coal Region which is attributable to assets under an agreement described by Clause 6.5.2(d)(i) of the Undertaking for the payment of a rebate less any rebate which is paid under that agreement; and

(c) any revenue from AT5 that QR Network would have been entitled to earn under an Access Agreement in relation to the Central Queensland Coal Region during the relevant Year but for QR Network's breach of that Access Agreement or negligence in the provision of Below Rail Services to the extent that such events of breach or negligence resulted in the non-provision of 10% or more of the total number of Train Services for any single origin-destination pair during the relevant Year~~for which, in either case, QR Network is liable in respect of a Claim made against it in accordance with that Access Agreement~~.

3.2.6 QR Network will submit to the QCA by 30 September after the end of each Year of the Term details of the methodology, data and assumptions used to calculate the Revenue Adjustment Amounts for that Year in accordance with this Clause 3.2.

3.2.7 The QCA may give QR Network a written notice requiring QR Network to submit the Revenue Adjustment Amounts, if QR Network fails to do so in accordance with Clause 3.2.6.

3.2.8 The QCA may grant QR Network an extension of the time for submitting, or resubmitting, the Revenue Adjustment Amounts if:

(a) QR Network provides a written request to the QCA for an extension of time which includes the reasons why QR Network requires the extension of time; and

(b) the extension of time is reasonable or necessary.

If the QCA grants QR Network an extension of time under this Clause 3.2.8, QR Network must submit the Revenue Adjustment Amounts within the time specified by the QCA.

3.2.9 The QCA may determine Revenue Adjustment Amounts that are consistent with the requirements specified in this Clause 3.2:

(a) if QR Network does not comply with a written notice given by the QCA under Clause 3.2.7 or 3.2.12(b) for it to submit, or resubmit, the Revenue Adjustment Amounts; or

(b) if the QCA refuses to approve the Revenue Adjustment Amounts resubmitted by QR Network in accordance with Clause 3.2.12(b).

3.2.10 Where QR Network submits the Revenue Adjustment Amounts in accordance with Clause 3.2.6, the QCA may, to the extent it considers it appropriate to do so:

(a) publish details of the Revenue Adjustment Amounts; and

(b) invite and consider comments from stakeholders regarding the Revenue Adjustment Amounts.

To the extent that stakeholders provide comments, QR Network must be given a reasonable period in which to provide a response to those comments to the QCA.

3.2.11 The QCA will approve the Revenue Adjustment Amounts, if the QCA is satisfied that the calculation of the Revenue Adjustment Amounts is in accordance with this Clause 3.2.

3.2.12 If the QCA:

(a) approves the Revenue Adjustment Amounts, the QCA will give QR Network a notice in writing stating the reasons for the QCA's decision; or

(b) refuses to approve the Revenue Adjustment Amounts, the QCA will give QR Network a notice in writing:

(i) stating the reasons for its refusal and the way in which the QCA considers that the Revenue Adjustment Amounts should be amended; and

(ii) requiring QR Network to vary the Revenue Adjustment Amounts in the way the QCA considers it appropriate and resubmit the Revenue Adjustment Amounts to the QCA within thirty (30) days after QR Network receives that notice.

3.2.13 QR Network must comply with a notice given under Clause 3.3.12(b).

3.2.14 The QCA may approve resubmitted Revenue Adjustment Amounts or Revenue Adjustment Amounts developed by the QCA under Clause 3.2.9, if the QCA is satisfied that the Revenue Adjustment Amounts:

(a) are consistent with the matters specified under Clause 3.2.11; and

(b) have been amended or developed in accordance with the QCA's decision.

3.3 Revenue Adjustment

3.3.1 Where a Revenue Adjustment Amount has been approved by the QCA in accordance with Clause 3.2:

(a) the equivalent System Allowable Revenue to that used in the calculation of that Revenue Adjustment Amount for the relevant Individual Coal System for the Year after the Year in which that Revenue Adjustment Amount was calculated ("2nd Year System Allowable Revenue") will be adjusted in accordance with this Clause 3.3; and

(b) the System Allowable Revenue for all subsequent years will also be adjusted by the QCA to reflect the actual MCI and CPI for the relevant Year as used in calculation of the approved Revenue Adjustment Amount.

3.3.2 A 2nd Year System Allowable Revenue shall be adjusted as follows:

(a) for an AT2-4 Revenue Adjustment Amount, by subtracting from the relevant 2nd Year System Allowable Revenue:

(i) that AT2-4 Revenue Adjustment Amount; and

(ii) a return on capital amount, calculated by reference to the Discount Rate as applied to the AT2-4 Revenue Adjustment Amount over the period starting on the first day of the Year in which the Revenue Adjustment Amount is calculated and ending on the last day of the Year following that Year;

(b) for an AT5 Revenue Adjustment Amount, by subtracting from the relevant 2nd Year System Allowable Revenue:

(i) that AT5 Revenue Adjustment Amount; and

(ii) a return on capital amount, calculated by reference to the Discount Rate as applied to the AT5 Revenue Adjustment Amount over the period starting on the first day of the Year in which the Revenue Adjustment Amount is calculated and ending on the last day of the Year following that Year.

3.3.3 Where a 2nd Year System Allowable Revenue is adjusted under this Clause 3.3, QR Network shall submit a variation of the relevant Reference Tariffs to the QCA at the same time as~~as part of~~ the adjustment of the relevant Reference Tariff in accordance with Clause 3.1.1.

Amend Clause 4.2 of Schedule F, Part B as follows:

4.2 Cross System Train Services

4.2.1 [the existing 4.2 becomes 4.2.1]

4.2.2 In order to ensure that a Cross System Train Service makes a minimum contribution towards QR Network's Common Costs in each Individual Coal System in which it operates, the Reference Tariff applicable for a new coal carrying Cross System Train Service will be the higher of (on a $/ntk basis):

(a) the Reference Tariff (calculated in accordance with Clause 4.2.1); or

(b) the sum of:

(i) the Cross System Train Service's Incremental Costs;

(ii) the AT1 component of the Reference Tariff for the Origin and Destination Systems (based on the gtks travelled in each system); and

(iii) the required minimum Common Cost contribution for the Origin and Destination Systems (determined in accordance with Clause 4.1.1, with the AT2 component of the minimum Cost contribution only applying in relation to the Origin System if it constitutes a capacity constrained corridor).

4.2.3 Where the Reference Tariff for the Cross System Train Service is established under Paragraph 4.2.2(b), the Reference Tariff will be determined in accordance with:

(a) the methodology set out in 4.2.1 for reference tariff components AT1, AT2, AT4 and, where applicable, AT5 and EC; and

(b) AT3 determined on a $/ntk basis recovers an Access Charge equal to the amount specified in 4.2.2(b).

4.2.4 The:

(a) capital costs of developing a rail spur which will be used (wholly or partly) for Cross System Train Services will be allocated to the Regulatory Asset Base as part of the Origin System; and

(b) Access Charges from Cross System Train Services will be treated for the purposes of the revenue cap adjustment as being allocated such that:

(i) Access Charges equal to the minimum contribution for the Destination System's common costs will be allocated to the System Allowable Revenue of the Destination System; and

(ii) all other Access Charges to which QR Network is entitled in respect of a Cross System Train Service will be allocated to the System Allowable Revenue of the Origin System.

Amend clause 6.5.2 (b) as follows:

(b) For the purposes of Clause 6.5.2(a), Access Conditions are deemed to be reasonably required:

(i) where:

QR Network is to develop Infrastructure Enhancements (for example, a new branch line or increasing the height of tunnels to accommodate a single Customer's, or end user's, taller than usual trains);

there will be no more than one Customer, or end user, using those Infrastructure Enhancements; and

those Infrastructure Enhancements would not be required had that Access Seeker not sought Access for its Train Services;

(ii) if QR Network requires those Access Conditions pursuant to Clause 6.5.2(e)(ii), provided that the division of responsibility for the Access Conditions between the First Party and Subsequent Party is equitable; or

(iii) where QR Network cannot provide the Access sought unless it invests in a Major Project.

APPENDIX 7 – CAPACITY AND NETWORK MANAGEMENT

Amend clause 7.3.7 as follows:

7.3.7 Capacity Relinquishment and Transfer

(a) Unless otherwise specified in the Access Holder's Access Agreement, an Access Holder may relinquish or transfer Access Rights in accordance with Clause 7.3.7.

(b) An Access Holder who intends to relinquish Access Rights must give QR Network reasonable notice of its intention to do so (" Notice of Intention to Relinquish"), specifying:

(i) ~~specifying the access rights to be relinquished~~ "Nominated access rights"; and

(ii) subject to clause7 .3.7 (~~c~~ d), the date (relinquishment date) on which and the period for which the nominated access rights are to be relinquished; and

(iii) ~~if the access holder wishes to affect a transfer of part (or all) of the nominated access rights to an access seeker ("transferee"), the identity of the transferee and the access rights proposed to be transferred.~~

(c) An access holder who intends to transfer all or part of its access rights to an access seeker (the "transferee") must give QR Network reasonable notice of its intention to do so ("Notice of intention to transfer"), specifying:

(i) the nominated access rights;

(ii) subject to clause 7.3.7 (c d), the date (relinquishment date) on which and the period for which the nominated access rights are to be relinquished; and

(iii) the identity of the transferee.

(d) The period from the giving of the notice of intention to relinquish until the relinquishment date, or the period from the giving of the notice of intention to transfer until the transfer date, must not:

(i) exceed two (2) years, where:

(A) access rights are to be relinquished or transferred under an access agreement that was executed on or after 30 June 2006; and

(B) that access agreement is for coal carrying train services(including those train services in relation to the access rights that are to be relinquished or transferred) operating in the central Queensland coal region; or

(ii) exceeds six (6) months, where clause 7.3.7 (~~c~~ d)(i) does not apply.

(e) An access holder who wishes to relinquish or transfer access rights under this clause must pay a relinquishment fee to QR Network. The relinquishment or transfer fee of the nominated access rights is subject to the access holder's payment of the relinquishment fee to QR Network.

(f) The access holder immediately prior to paying the relinquishment fee (but not less than 5 business days prior to the relinquishment date or transfer date), must request QR Network to calculate the relinquishment fee. ~~and if~~ If so requested QR network will calculate the

relinquishment fee in accordance with clause 7.3.8. Subject to clause 7.3.7(~~e~~ g), QR Network will notify the access holder as soon as reasonably practical of the relinquishment fee and how it was calculated.

(g) If the calculation of the relinquishment fee in accordance with this undertaking changes during the period from the time QR Network notifies the access holder under clause 7.3.7 (~~d~~ f) to the time the access holder seek~~s~~~~ing~~ to pay the relinquishment fee, then QR Network:

(i) may refuse to accept that payment; and

(ii) must advise the access holder of the correct relinquishment fee and the change in the calculation.

~~(h) The relinquishment or transfer of the nominated access rights is subject to the access holder's payment of the relinquishment fee to QR Network.~~

(i) The terms of the applicable access agreement will continue to apply in respect of the nominated access rights until the later of:

(i) The access holder paying the relinquishment fee to QR Network; and

(ii) The relinquishment date or transfer date.

(j) Where QR Network identifies an opportunity for it to enter into an access agreement with an access seeker that would result in a lessening of a relinquishment fee, QR Network will not unreasonably delay the process for negotiating and executing an access agreement with that access seeker.

(k) ~~To the extent that a notice of intention to relinquish identifies a transferee~~, In the event of a transfer of access rights under this clause, QR Network will transfer the applicable nominated access rights provided that:

(i) the access rights sought by the transferee are for same type of train service entitlement (i.e. either cyclic traffic or timetabled traffic) as the nominated access rights;

(ii) corresponding access rights are included in a new or varied access agreement with the transferee;

(iii) QR Network's obligation to provide access under that new or varied access agreement in respect of the relevant access rights commences on and from the relinquishment date for all or part of the period specified in clause 7.3.7 (~~b~~ c)(ii);

(iv) the access holder complies with clause 7.3.7 ~~(b) to (f)~~ (c)-(f); and

(v) the nature and extent of capacity available to existing access seekers and QR Network's ability to satisfy obligations to existing access holders are not adversely affected.

Amend clause 7.3.8 of part 7 as follows:

(a) The relinquishment fee will be calculated as follows:

(i) if the ~~in respect of an~~ access agreement that includes an obligation to pay take or pay in the event that an access holder does not operate train service, and the

conditions in clause 7.3.8 (a)(iv) are not met: ~~other than an access agreement for train services specified in paragraph (ii) and (iii) of this definition~~:

(A) the amount equivalent to the present value, calculated at the discount rate, of the payment of the take or pay amount that would have been payable for the remainder of the term of the access agreement if the nominated access rights were not relinquished but the access holder did not operate the relevant train services;

(B) less the product of that amount and the reduction factor.

(ii) If the access agreement falls within clause 7.3.8 (a) (i) and relates to train services in the central Queensland coal region:

(A) The amount equivalent to the present value, calculated at the discount rate, of the payment of the take or pay amount that would have been payable for the remainder of the term of the access agreement if the nominated access rights were not relinquished but the access holder did not operate the relevant train services, calculated:

(1) in accordance with the relevant access agreement; and

(2) if that calculation requires information about future events, using assumptions determined by QR Network about those future events so as to calculate the maximum amount of take or pay that could potentially be payable;

(B) less the product of that amount and the reduction factor.

(iii) If the access agreement falls within clause 7.3.8 (a) (ii) and was executed after 30 June 2006, and the nominated access rights are not to be transferred:

(A) the amount equivalent to the present value, calculated at the discount rate, of the payment of the take or pay amount that would have been payable for the remainder of the term of the access agreement if the nominated access rights were not relinquished but the access holder did not operate the relevant train services, calculated:

(1) in accordance with the relevant access agreement; and

(2) if that calculation requires information about future events, using assumptions determined by QR Network about those future events so as to calculate the maximum amount of take or pay that could potentially be payable;

(B) less:

(1) the product of that amount and the reduction factor; or

(2) 50%;

Whichever yields the lowest result;

(iv) If the nominated access rights relate to ~~for~~ coal carrying train services and the relevant access agreement ~~included in access agreements~~ was in place on the day immediately prior to 30 June 2006 or involved the transfer, pursuant to clause 7.3.9

(a)(i), of access rights from an access agreement that was in place on the day immediately prior to 30 June 2006 (but only if the terms of the old access agreement apply in respect of the ~~relevant~~ nominated access rights pursuant to clause 7.3.~~8~~9(a) (ii)):

(A) ~~the amount that would be payable over the following two (2) year period if the access holder were to pay~~ 40% (forty percentage points) of the total access charge that would be payable if ~~it~~ the access seeker operated ~~the relevant~~ train services pursuant to the nominated access rights over the following two (2) year period; ~~and~~

(B) less the product of that amount and the reduction factor.

(v) If the access agreement does not fall within clause 7.3.8 (a) (i)-(iii), and the conditions in clause 7.3.8(a) (iv) are not met: ~~in respect of an access agreement other than those nominated in paragraphs (i) or (ii),~~

(A) the amount that would have been contributed over the following two (2) year period to the common costs of providing the rail infrastructure as a result of the operation of the relevant train services pursuant to the nominated access rights and payment of the applicable access charge,

(B) less the product of that amount and the reduction factor.~~, provided that:~~

(b) If despite clause 7.3.8 (a), no relinquishment are to be transferred to a transferee for a period of less than two (2) years; or

(i) the nominated access rights ~~to be relinquished~~ are to be transferred to a transferee for a period of less than two (2) years; or

(ii) the figure calculated pursuant to clause 7.3.8(a) ~~that a calculation result in an amount that~~ is less than zero (0) ; or that amount is deemed to be zero (0).~~: or~~

~~then the amount is deemed to be zero(0).~~

Amend Appendix 1 of Schedule G as follows:

Appendix 1

System Rules

(a) ...

(b) The initial System Rules for each Individual Coal System are to be prepared and approved in accordance with Clause 2.5 of this Undertaking.

(c) QR Network and Access Holders must comply with the System Rules in force from time to time.

(d) In making amendments to the System Rules, QR Network must:

(i) notify Access Holders and Access Seekers whose Train Services will be affected by the amendments ~~System Rules~~ and their Customers (together "Affected Persons") proposed to be made by QR Network ("Proposed Amendments ~~System~~

~~Rules~~") of QR Network's intention to amend the ~~make~~ System Rules and provide a copy of the Proposed Amendments ~~System Rules~~ to those persons;

(ii) consult with the Affected Persons and any affected Infrastructure Service Providers; and

(iii) have regard to the equitable operation of the System Rules across Access Holders and Access Seekers (should they become Access Holders) and their Customers, and the terms of Access Agreements.

(e) If an Affected Person considers that the Proposed Amendments ~~System Rules~~:

(i) would not, as a whole, operate equitably amongst Access Holders and Access Seekers (should they become Access Holders) or their Customers; or

(ii) are inconsistent with the terms of an Access Agreement,

then they should provide a written submission to QR Network, within thirty (30) days after being given a notice in accordance with paragraph (~~e~~d) of this Appendix 1, identifying why the Proposed Amendments ~~System Rules~~:

(i) would not operate equitably; or

(ii) are inconsistent with the terms of an Access Agreement.

(f) QR Network will notify each person making a submission in accordance with paragraph (~~d~~e) of this Appendix 1 whether it intends to vary the Proposed Amendments ~~System Rules~~. If QR Network varies the Proposed Amendments ~~System Rules~~ from those provided to persons in accordance with paragraph (~~d~~e) of this Appendix 1, then QR Network will notify those persons of the variation and the reasons for the variation.

(g) If, within fifteen (15) Business Days after QR Network has given the notices required under paragraph (~~f~~e) of this Appendix 1, an Affected Person considers that the Proposed Amendments ~~System Rules~~ (including any variations):

(i) would not, as a whole, operate equitably amongst Access Holders and Access Seekers (should they become Access Holders); or

(ii) are inconsistent with the terms of an Access Agreement,

then that person may refer the matter ~~may be referred~~ to the QCA for determination as a Dispute ~~resolution~~ in accordance with Clause 10.1 of the Undertaking.

(h) If an Affected Person has referred a matter to the QCA for determination under paragraph (g) of this Appendix 1, QR Network will be taken to have implemented the Proposed Amendments on an interim basis until the Dispute is resolved. If the QCA determines that any part of the proposed System Rules:

(i) would not, as a whole, operate equitably amongst Access Holders and Access Seekers (should they become Access Holders) and their Customers; or

(ii) is inconsistent with the terms of an Access Agreement,

then the Proposed Amendments will lapse.

(i) QR Network will not be liable to the QCA, Access Seekers, Access Holders, or their Customers, as a result of QR Network implementing and observing proposed Amendments (whether on an interim or final basis), as long as QR Network, acting in good faith, had formed the opinion that the relevant proposed Amendments would, as a whole, operate equitably amongst Access Holders and Access Seekers (should they become Access Holders) and their Customers, and were consistent with the terms of any relevant Access Agreement.

(j) For the purposes of this Appendix 1:

(i) the amending ~~making~~ of System Rules includes ~~amending,~~ replacing or removing System Rules; and

(ii) Proposed Amendments ~~System Rules~~ includes a proposed ~~amendment or~~ replacement of System Rules or a proposal to remove System Rules.

APPENDIX 8 – ASSET BASE AND MASTER PLANNING FOR CQCR

Include clause 3.1.3(c) as follows:

3.1.3(c) Procurement strategy

(i) The QCA will approve QR Network's procurement strategy if it is satisfied that it is consistent with the following general principles, namely that the procurement strategy:

(A) is in accordance with good industry practice;

(B) will generate an efficient and competitive outcome;

(C) will avoid conflict of interest or collusion amongst tenderers;

(D) is prudent in the circumstances of the capital expenditure project (including tending to assist in achieving the requirements for prudency of cost set out in Clause 3.2.4); and

(E) will avoid unreasonable exposure to contract variation claims.

(ii) In particular, in considering whether or not to approve QR Network's procurement strategy, the QCA will consider whether, inter alia:

(A) there is a clear process for the calling of tenders, including having clear specifications for tenders, and processes for mitigating conflicts of interest (except when it is assessed that calling tenders is likely to be less advantageous than an alternative means of negotiating a contract);

(B) there is a tender assessment process which contains clear and appropriate processes for determining the successful tender, with any decisions to approve a tender that is not the lowest tender being appropriately justified and documented;

(C) the basis of payment for works is clearly specified and the basis for undertaking the works is in accordance with good commercial practice;

(D) there is a process for managing contracts before and after award that accords with good commercial practice and provides appropriate guidance on the criteria that QR Network should apply to decisions regarding the management of the capital expenditure project, including but not limited to:

(1) safety during construction and operation;

(2) compliance with environmental requirements during construction and operation;

(3) minimising disruption to operating capacity during construction;

(4) accommodation, to the extent practical, of the reasonable requests of Access Holders [and their Customers] to change the scope and sequence of construction to suit their needs;

(5) a prudent balance between:

a. a higher price in return for more certainty as to final cost;

b. a lower price accepting that final cost may be less certain; and

c. costs, schedule and minimising disruption to operating capacity during construction;

(6) minimising whole of asset life costs including future maintenance and operating costs;

(7) minimising total project cost which may at times not be consistent with minimisation of individual contract costs;

(E) there is a process for managing contract variations and/or escalation that occurs post award of a contract, requiring that reasonable consideration be given to managing the risk of contract variations and/or escalation and the allocation of potential risks during the management of the contract and requiring the provision of clear documentary evidence regarding the nature and reasonableness of any variation and/or escalation; and

(F) QR Network has engaged an auditor in accordance with subparagraph 3.1.3(c)(v) to monitor compliance with the procurement strategy.

(iii) The QCA will accept that the value of a contract as awarded is prudent and will include it into the regulated asset base if:

(A) the QCA has approved QR Network's procurement strategy in accordance with Section 3.1.3(b);

(B) the QCA is satisfied that contract provisions regarding contract variations and escalation accord with good commercial practice; and

(C) the auditor engaged in accordance with section 3.1.3(c)(v) certifies that the tender has been conducted in accordance with the approved procurement policy.

(iv) The QCA will accept that contract variations and/or escalations post award of a contract are prudent and will include them into the regulated asset base if:

(A) a contract which has been accepted as prudent under section 3.1.3(c)(iii) has been managed in accordance with the approved procurement strategy;

(B) the auditor engaged in accordance with section 3.1.3(c)(v) has certified that contract variations and/or escalations have been handled in a manner consistent with the relevant contract provisions; and

(C) the QCA is satisfied that the cost of contract variations and/or escalations is otherwise appropriate, having regard to the following:

(1) whether adequate consideration was given to properly managing the risk of contract variations and/or escalation or the allocation of potential risks during the awarding and management of the contract;

(2) whether the contract has been appropriately managed when regard is had for matters outlined in Section 3.1.3(c)(ii)(D);

(3) whether the contract variations and/or escalations are appropriately justified; and

(4) whether the contract has been managed with a regard to a prudent balance between costs, schedule and minimising disruption to operating capacity during construction.

(v) As part of the implementation of the approved procurement strategy, QR Network will engage an independent external auditor to audit the compliance of QR Network's tender and contract management processes with the procurement strategy approved under Section 3.1.3(b) (the cost of which advisors will be borne by QR Network at the discretion of the QCA). The process in this regard will be as follows:

(A) QR Network will appoint the auditor, subject to obtaining the QCA's prior approval of the selection of the auditor and the QCA's prior approval of the terms and conditions of the engagement of the auditor;

(B) the auditor will be required to acknowledge and accept that the auditor owes a separate contractual duty of care to the QCA in the provision of the audit and, in the event of a conflict between the auditor's obligations to QR Network and its duty of care to the QCA, the auditor's duty of care to the QCA will take precedence;

(C) the auditor must agree the processes for conducting an audit with QR Network and obtain the QCA's approval of the audit process. The audit process will consist of a proposed work program, including audit costs (which shall be payable by QR Network and included in the regulated asset base), for the execution of the audit;

(D) QR Network will, within a nominated timeframe that is determined by the auditor to be reasonable after consultation with QR Network, provide any relevant information the auditor reasonably requires for the purpose of conducting the audit;

(E) if required by QR Network, the auditor will enter into a confidentiality deed with QR Network in relation to any information provided by QR Network to the effect that it must keep the information confidential and only use that information for the purpose of conducting the audit and completing the audit report detailed below;

(F) the auditor will compile an audit report identifying whether QR Network has complied in all material respects with the approved procurement strategy including in relation to contract variations and/or escalation. If the auditor identifies that QR Network has not complied in all material respects with the approved procurement strategy, then the audit report is also to contain details on the relevant noncompliance, any reasons stated by QR Network for the relevant non-compliance, and whether the non-compliance was reasonable in the circumstances;

(G) the auditor will provide progress reports on the audit process every 6 months. The auditor will also provide a copy of the audit report to QR Network and the QCA upon completion of the audit. The QCA may publish the audit report if it considers it appropriate; and

(H) if the QCA forms the view that any of the auditor's reports (whether progress reports or a final report) are lacking in detail or otherwise deficient, the QCA may direct QR Network to instruct the auditor to review their report and, in doing so, to address the concerns of the QCA.

(vi) The QCA will take advice as it considers necessary from independent advisors using appropriate benchmarks and experience, the cost of which advisors will be borne by the QR Network.

LIST OF SUBMISSIONS

Organisation/Individual	Submission Number
Asciano	33
Australian Rail Track Corporation (ARTC)	32
BMA	34
Concept Economics	35
Ensham Resources	36
QR Freight	37
QR National Coal	46
QR Network	s1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17*,18*, 19*,20*,21*,22,23*,24,25,26, 27, 30,31
Queensland Resources Council	38, 44
Queensland Treasury Corp	39
Rio Tinto Alcan	40
Rio Tinto Coal Australia	41
Stanwell Corp	42
Xstrata	43, 45

* Claims of confidentiality have been made for part or all of these submissions.

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