

**NSW MINERALS COUNCIL
HUNTER RAIL ACCESS TASK FORCE**

**SUBMISSION TO
INDEPENDENT PRICING AND REGULATORY TRIBUNAL**

**REGARDING
2009 REVIEW OF NSW RAIL ACCESS UNDERTAKING
RATE OF RETURN & REMAINING MINE LIFE
RELATING TO THE HUNTER VALLEY COAL NETWORK**

April 2009

ABBREVIATIONS USED IN THIS DOCUMENT

General

ARTC	Australian Rail Track Corporation
CAPM	Capital Asset Pricing Model
CGS	Commonwealth Government Securities
Gamma	The value of imputation credits
HVAU	ARTC's Draft Hunter Valley Access Undertaking to be submitted to ACCC
HRATF	Hunter Rail Access Task Force
HVCC	Hunter Valley Coal Chain
HVCCC	Hunter Valley Coal Chain Coordinator
HVCCLT	Hunter Valley Coal Chain Logistics Team
HVCN	Hunter Valley Coal Network
MRP	Market risk premium
NSWMC	NSW Minerals Council
NSWRAU	NSW Rail Access Undertaking
RAB	Regulatory Asset Base
RIC	Rail Infrastructure Corporation
ROR	Rate of return
RML	Remaining mine life
TOP	Take or pay
WACC	Weighted Average Cost of Capital

Regulatory and Research Bodies

ACCC	Australian Competition and Consumers Commission
AER	Australian Energy Regulator
CRA	Charles River Associates
ERA	Economic Regulation Authority (WA)
ESC	Essential Services Commission (Victoria)
ESCOSA	Essential Services Commission of South Australia
IPART	Independent Pricing and Regulatory Tribunal (NSW)
NERA	National Economic Research Association
QCA	Queensland Competition Authority

1. EXECUTIVE SUMMARY

1.1 Rate of Return

NSWMC submits that a Rate of Return (ROR) of 5.25% (real pre-tax), updated for the market-determined or “time-variant” WACC parameters prevailing at the time of IPART’s decision, should apply to the Hunter Valley Coal Network (HVCN) Regulatory Asset Base (RAB) from 1 July 2009.

NSWMC also submits that the ROR should be up-dated annually, to reflect changes in the values of the market dependent parameters.

NSWMC’s proposed ROR is a single point estimate, estimated using the bases and values for each WACC parameter that NSWMC believes are the most appropriate. NSWMC’s parameter values are set out in Section 3.1 of this Submission and the reasons for their selection set out in Sections 3.3 to 3.8.

NSWMC’s submission is supported by the attached submissions of expert consultant, ACIL Tasman.

NSWMC believes its proposed parameter values will best reflect the circumstances applying to the HVCN RAB over the five year regulatory period (July 2009 - June 2014), including both the existing assets and ARTC’s projected investment over the period. NSWMC’s proposed ROR reflects

- current values for the market dependent or time-variant parameters (nominal risk free rate, inflation rate and the cost of debt margin)
- parameter values determined in accordance with other recent relevant regulatory decisions (nominal risk free rate, inflation rate, cost of debt margin, debt raising costs, market risk premium, gamma, effective tax rate)
- conservative parameter values appropriate for current circumstances (e.g. gearing, asset/equity betas)
- no compensation being necessary for asymmetric risk or other factors.

Although NSWMC’s proposed ROR is lower than that determined in the 2004 Review, NSWMC submits that it is properly determined under WACC theory and relevant current practice and, therefore, should be applied.

NSWMC has no wish to inhibit the efficient investment needs of the HVCN, quite the opposite. In view of the substantial growth in coal exports from the Hunter region projected for the regulatory period and beyond, NSWMC strongly supports prompt and efficient investment in capacity expansion by ARTC and other infrastructure service suppliers.

However, ARTC has received a \$580M equity injection from the Commonwealth Government for its currently planned investment in the HVCN of around \$1000M; it may have received other Commonwealth Government support in relation to borrowing; it has a very low actual gearing; it intends to require up-front, long-term, take-or-pay commitments by all coal users of the HVCN to cover the capital costs of all its new investments and other fixed costs; and it intends to require up-front capital contributions by the users where necessary to fund particular investments, such as the \$470M investment planned for the Muswellbrook to Narrabri line.

In that context, NSWMC submits that ARTC needs to specifically support any claim that it needs a higher ROR to fund its planned capital program and cannot fund the program at the current ROR or a lower ROR determined by IPART in this review.

2. INTRODUCTION

2.1 Role of NSWMC

The NSW Minerals Council (NSWMC) is making this submission on behalf of the Hunter Rail Access Task Force (HRATF), an associated group comprising all 14 Hunter Valley coal producers using the Hunter Valley Coal (rail) Network (HVCN).

Current coal railings by those producers are around 100Mtpa with around 95Mtpa being exported through Newcastle. There is potential for very large investment in new mine capacity and the infrastructure chain and consequent growth in coal exports from the Hunter region in coming years.

NSWMC understands that, currently, around 95% (around 90Mtpa out of 94Mtpa) of coal traffic on ARTC' sectors of the HVCN pays the full economic cost of the track infrastructure. This is expected to increase to 100% when production from the Gunnedah Basin, on the Muswellbrook to Narrabri line, expands.

IPART advises that currently, ARTC calculates the revenue ceiling for approximately 80% of the capital base for the parts of the HVCN operated by ARTC. The difference reflects the fact that traffic levels on the Muswellbrook to Werris Creek line segment, currently used to rail only a small tonnage of coal from the more distant Gunnedah Basin mines, are relatively low, like most parts of ARTC's interstate network.

However, new coal traffic from the Gunnedah Basin has increased ARTC's revenue recovery on the Muswellbrook to Werris Creek line segment in recent years and substantial future increases in railings, from planned large new mines developed to meet growing international demand for Hunter region coal, are expected to enable full recovery of the economic costs of the line segment in the future.

While the higher traffic levels will require a substantial investment in additional capacity by ARTC, ARTC expects that investment to be secured by up-front commitments to long term, take-or-pay contracts as well as, where necessary, capital contributions by the coal producers using the additional capacity.

2.2 Background to the Review

As IPART notes in its Discussion Paper, ARTC is currently drafting an access undertaking for ACCC's consideration. If accepted by ACCC, this Hunter Valley Access Undertaking (HVAU) will replace the NSW Rail Access Undertaking (NSWRAU) in relation to ARTC's 32 track sectors of the 37 track sector HVCN.

NSWMC understands that ARTC's objective is to obtain acceptance of the HVAU by the ACCC as soon as possible and have it become effective from 1 July 2009. As ARTC has not yet submitted the HVAU to ACCC, this would involve backdating the effective date from the acceptance date.

While it is likely that IPART's rate of return and remaining mine life decision from 1 July 2009 will be in effect for less than the full five years on the ARTC sectors of the HVCN, ARTC acknowledges that acceptance of the HVAU by the ACCC and its effective date are not certain. In the meantime, the NSWRAU will continue to apply to ARTC's track sectors. It will also apply to the 5 track sectors operated by RailCorp for the full 5 years.

In this context, NSWMC and its expert consultants have made comprehensive and detailed submissions addressing the ARTC proposals and the IPART Discussion Paper on rate of return.

3. RATE OF RETURN

3.1 NSWMC Position

NSWMC submits that a Rate of Return (ROR) of 5.25% (real pre-tax), updated for the market-determined or “time-variant” WACC parameters prevailing at the time of IPART’s decision, should apply to the Hunter Valley Coal Network (HVCN) Regulatory Asset Base (RAB) from 1 July 2009.

This ROR is based on the weighted average cost of capital (WACC) which comprises debt and equity. The cost of debt has been determined by calculating a margin over the risk free rate and the cost of equity by using the Capital Asset Pricing Model (CAPM).

NSWMC’s proposed ROR is a single point estimate, estimated using the bases and values for each parameter that NSWMC submits are the most appropriate.

For this ROR, the market dependent or time-variant parameters were

- nominal risk free rate (20 trading days to 6 April 2009): 3.80%
- estimated inflation: 2.45%
- cost of debt margin (20 trading days to 20 December 2008): 2.37%

For the other key WACC parameters, NSWMC has adopted the following values

- debt raising costs: 0.083%
- market risk premium: 6.0%
- proportion of franking credits attributed value shareholders: 65%
- debt to capital: 50%
- asset beta: 0.44
- effective tax rate for equity: estimated to be 10%

NSWMC believes these values will best reflect the circumstances applying to the HVCN RAB over the five year regulatory period (July 2009 - June 2014), including both the existing assets and ARTC’s projected investment over the period.

NSWMC also submits that the ROR should be up-dated annually, to reflect changes in the values of the market dependent (“time-variant”) parameters.

The bases for NSWMC’s proposed WACC parameter values and ROR are set out in detail in a submission prepared by our expert consultants, ACIL Tasman Pty Ltd. [Attachment 1: “Assessment of ARTC/Synergies Proposals on the Cost of Capital and Response to the IPART Discussion Paper”]

The ACIL Tasman Submission also responds in detail to the issues raised by IPART in its February 2009 Discussion Paper on ROR.

NSWMC’s and ACIL Tasman’s view that there are no grounds for compensating for stranding risk in the ROR is supported by an assessment of the demand for, and international competitiveness of, Hunter Valley coal in world markets prepared by our expert consultants, Wood Mackenzie Pty Ltd.

The following sections of this Submission on ROR set out NSWMC’s response to particular issues, including those raised by IPART in its Discussion Paper. They extract from, and summarise, sections of the ACIL Tasman Submission.

3.2 Comparison with IPART’s 2004 Decision

The factors contributing to the lower ROR submitted by NSWMC compared to the Decision in IPART’s 2004 Review can be summarised as follows

	<u>ROR (%)</u>
IPART 2004 Review Decision	7.29
Changes to time-variant parameters	(0.04)
Adoption of AER 5 year horizon for parameter bases	(0.90)
Other revised parameter values [gamma (-0.59), tax (-0.35), gearing, beta, MRP]	(1.10)
NSWMC Submission	5.25

These factors are discussed in the following sections of this Submission. However we note that some of the difference in parameter values between IPART's 2004 Decision and NSWMC's submission follows from IPART's use of the 75th quartile in the 2004 Decision, while NSWMC has presented its "best estimate" of each parameter.

3.2.1 Time-Variant Parameters

The changes to the nominal risk free rate and the cost of debt margin since IPART's 2004 Determination are market dependent.

NSWMC also believes that ARTC/Synergies proposals for estimating inflation and the real risk free rate appear reasonable and are consistent with the approach currently adopted by the ACCC. The approach proposed by IPART also has merit, and would appear to provide estimates that are broadly consistent with the Synergies proposal. In calculating the WACC, NSWMC has used a parameter value for inflation of 2.45%, determined using IPART's approach on the basis that a market based approach is on balance preferable.

Each of these three parameters will need to be updated using market data closer to the date of IPART's determination of the ROR.

3.2.2 AER Parameter Bases

For the nominal risk free rate and the cost of debt margin, NSWMC's view is that the Australian Electricity Regulator's (AER's) approach (set out in its December 2008 statement of revised WACC parameters (transmission) and statement of regulatory intent on the revised WACC parameters (distribution)) of aligning the term for CGS and bonds to the regulatory period of five years is important and should be used for determining the central estimates for these parameters. As the AER indicates, using a longer period recompenses ARTC for risks it is not actually facing.

AER's review of the cost of capital parameters was undertaken in conjunction with the ACCC. When approving the WACC parameters included in ARTC's Interstate Access Undertaking, the ACCC was careful to note that AER's review was being undertaken. Accordingly it is very likely that the ACCC will adopt AER's recommendations in its future regulatory reviews.

NSWMC submits that, to avoid over-compensating service suppliers and to ensure consistency with future regulatory reviews of ARTC's HVCN, IPART's approach to the WACC parameters should be consistent with AER's recommendations.

3.2.3 Revised Parameter Values

NSWMC submits that revised values for several parameters would more appropriately reflect the circumstances applying to the HVCN RAB for the next regulatory period as well as other regulatory decisions since IPART's 2004 Decision. These parameters are

Debt Raising Costs: NSWMC proposes a value of 0.083%, based on AER's benchmark approach, rather than ARTC/Synergies' value of 0.13%.

Value of Imputation Credits: NSWMC proposes a value of gamma of 0.65, the midpoint of AER's recommendation of a reasonable range of 0.74 to 0.57. In addition, IPART's 2004 range of 0.30 to 0.50 is not consistent with other recent relevant regulatory decisions.

Gearing: NSWMC proposes a conservative assumption of 50% debt to total assets, at the low end of the ARTC/Synergies range, in the light of the current global financial crisis.

Effective Tax Rate: NSWMC's WACC proposal assumes an estimated effective tax rate for ARTC of 10%, reflecting ARTC's large investment program which will lower ARTC's effective tax rate for equity. Pre-tax WACC will be overstated if the statutory tax rate of 30% is used. NSWMC submits that IPART should estimate an appropriate effective tax rate as part of its determination.

NSWMC also submits that there should be no change to the asset beta of 0.44 determined by IPART in the 2004 Review, near the upper bound of IPART's range of 0.32 to 0.46 (with the range of 0.70 to 1.0 for equity beta). The value of 0.44 is consistent with the value determined by the Queensland Competition Authority (QCA) for Queensland Rail Network's (QRN's) coal network in its December 2005 approval of QRN's access undertaking (Decision QR's 2005 Draft Access Undertaking December 2005) after adjusting for debt betas. QCA allowed a positive debt beta of 0.12 with a gearing of 50% debt, which lowers the cost of equity. QCA also considered the QRN asset beta of

0.50, equivalent to an asset beta of 0.44 for ARTC, to be an upper bound. NSWMC proposes that 0.44 remains a conservative estimate of the asset beta, lying towards the top of previously recognised reasonable ranges.

The following sections of this Submission set out the reasons and bases for NSWMC's proposed parameter values in more detail and respond to IPART's questions on WACC methodology and parameter values.

3.3 Responses to IPART Questions on WACC Parameter Values

Detailed responses to IPART's questions for stakeholder comment are included in Sections 3 of ACIL Tasman's Submission which discusses Synergies' proposed WACC parameters and the issues raised by IPART.

Set out below are summary responses to IPART's questions, extracted from the ACIL Tasman Submission. The references quoted are sourced in the ACIL Tasman Submission.

Question 1 Should the global financial crisis change the way regulators estimate the WACC? If so how should this be done? Should any adjustments be temporary?

Subject to its comments in this Submission, NSWMC supports the way regulators estimate the WACC, including the use of CAPM as the most appropriate approach to assessing required equity returns, and does not believe that the financial crisis should change the methodology underlying the approach. However, the turbulence in financial markets may make key market determined parameters, such as the risk free rate and the debt margin, more volatile.

This greater volatility means that more frequent assessment of the market parameters would be appropriate to reduce the risk that the assessed cost of capital gets out of line with the market. For example, the market determined parameters could be up-dated annually, as is done by the Economic Regulation Authority (ERA) for the WA Rail Access Regime.

Question 2 Is there any reason for IPART to depart from ARTC's proposal to use nominal CGS yields averaged over 20 days to determine the risk free rate?

The ARTC/Synergies proposal for assessing the nominal risk free rate is consistent with the approach used by the ACCC in its determination on ARTC's Interstate Access Undertaking, and that of other jurisdictional regulators. Moreover, in its December 2008 Explanatory Statement, AER confirmed that continued use of Australian CGS as the proxy for the risk free rate. In particular AER concluded that arguments for the existence of a convenience yield are questionable.

AER also proposed that the term to maturity assumptions used to assess the risk free rate and the cost of debt for regulated electricity utilities should match the length of the regulatory period. IPART is determining the cost of capital appropriate for a five year period for the HVCN under the NSW Rail Access Undertaking (NSWRAU), and ARTC's Draft Hunter Valley Access Undertaking (HVAU), if approved by the ACCC, will include a five year review point. Accordingly, NSWMC submits that the term of the regulatory period should be regarded as five years at most.

In view of AER's concerns that using a longer period to estimate the risk free rate would over-compensate ARTC, NSWMC submits that basing the risk free rate on 5 year term yields is a better alternative to IPART's previous approach of using 10 year yields. Using 5 year Commonwealth Government Securities (CGS) averaged over a 20 day trading period to the 6th April 2009, the nominal risk free rate would be 3.80%.

These issues are covered in more detail in Section 3.1 of the ACIL Tasman Submission.

Question 3 What is the appropriate methodology to estimate the debt margin for the calculation of WACC for the HVCN?

The ARTC/Synergies approach is based on the approach previously adopted by the AER. This approach was also accepted by the ACCC in its review of the ARTC's Interstate Access Undertaking.

However, as noted above, in its December 2008 WACC proposals AER proposed that the term used to assess the risk free rate and the cost of debt should match the length of the regulatory period. As

for the risk free rate, NSWMC supports the approach proposed by AER but submits that the term for assessing the cost of debt margin should be no more than 5 years.

Deloitte advised AER that existing BBB+ rated corporate bonds are currently trading around 300 basis points above CGS. ERA determined that the debt premium based on ten year bonds was 2.95% based on a 20 trading day average to 20 December 2008. Deloitte also indicated that 10 year BBB bonds are trading at a premium over 5 year bonds of 58 basis points. Together this information suggests that an appropriate debt margin, based on five year BBB rated bonds, would be 2.37%.

These issues are covered in more detail in Section 3.8 of the ACIL Tasman Submission.

Question 4 What allowance should be added to the debt margin for the cost of raising debt?

ARTC/Synergies propose that a further allowance for debt raising costs of 12.5 basis points be added. This is consistent with the past practice of many regulators, including IPART, ACCC, QCA and ERA.

Synergies notes that, in its draft decision on the ARTC's Interstate Access Undertaking, ACCC was of the view that a fair allowance for debt issuance costs would be lower, at 8.3 basis points. Synergies challenges the ACCC's assessment on the grounds that the allowance was based on the costs of a firm issuing its own debt, but excluded the costs involved with establishing and running a treasury operation.

AER did not explicitly examine debt raising costs in its December 2008 WACC proposals. However, AER referred to the views expressed in AER's recent draft decisions on the NSW and ACT transmission and distribution determinations.

For example, in the TransGrid draft decision, ACCC developed a benchmark for debt raising costs based on the costs applicable to Australian companies accessing private debt markets. These costs included gross underwriting fees, allowances for legal and roadshow expenses, credit rating fees and registry and paying charges for each bond issue. AER assumed refinancing of debt with each (five year) regulatory period. Bond issues were assumed to be for \$200 million, with the cost benchmark found to decrease as the number of bond issues increased. TransGrid was assumed to require 13 bond issues to refinance \$2.54 billion of notional debt over the regulatory period.

ARTC plans to spend around \$1 billion on infrastructure enhancements. Assuming this expenditure is spread evenly the period and applying AER's methodology to establish an opening notional debt, NSWMC submits that a suitable benchmark debt raising cost is 0.083% (for 6 bond issues) for a five year period.

These issues are covered in more detail in Section 3.8 of the ACIL Tasman Submission.

Question 5 Are there other feasible market based methods to estimating forecast inflation?

Question 6 Is it appropriate to use a non-market estimate of forecast inflation for calculating the rate of return?

The ARTC/Synergies proposals for estimating inflation and the real risk free rate appear reasonable and are consistent with the approach currently adopted by the ACCC. The approach proposed by IPART also has merit, and would appear to provide estimates that are broadly consistent with Synergies' proposals.

In calculating the WACC, NSWMC has used a parameter value for inflation of 2.45%, determined IPART's approach on the basis that a market based approach is on balance preferable.

NSWMC does not support the approaches which rely on comparison of nominal and index linked yields, given the bias that has been observed on index linked yields.

These issues are covered in more detail in Section 3.2 of the ACIL Tasman Submission.

Question 7 Is there any reason for IPART to depart from its recent regulatory decisions to adopt a MRP of 5.5 to 6.5 per cent?

There is a heavy weight of regulatory precedent in favour of a 6% market risk premium (MRP). The ACCC has previously considered and rejected ARTC's arguments for a higher MRP. The extensive analysis undertaken by the AER, in its December 2008 WACC proposals, also supports continued use of a 6% MRP. AER's assessment was made in the light of the current global financial crisis.

Accordingly, NSWMC submits that a 6% MRP is appropriate for the HVCN, and that ARTC/Synergies' proposed range of 6% to 7% serves to overstate the MRP. For the reasons set out in Section 3.5 of this Submission, NSWMC also submits that using a range for the MRP in determining the range for the WACC will result in overstatement of the WACC if the WACC selected is above the midpoint of the range.

These issues are covered in detail in Section 3.6 of the ACIL Tasman Submission.

Question 8 Is there any reason for IPART to depart from its recent regulatory decisions to adopt a gamma value of 0.3 to 0.5?

The weight of past regulatory precedent, for regulators other than IPART, is strongly in favour of a gamma of 0.5. Moreover, in considering arguments in favour of a gamma value of zero presented by ARTC/Synergies in 2007 in relation to ARTC's Interstate Undertaking, ACCC concluded that a value of 0.5 conservatively favours regulated firms and should ensure future investment is adequately remunerated.

In view of these precedents, IPART's proposed adoption of a range from 0.3 to 0.5 would result in a bias towards a lower value.

Further, after considering the most recent available and reliable empirical evidence in its December 2008 WACC proposals, AER considered that there was persuasive evidence to depart from the previously adopted assumption of a gamma of 0.5. Based on the evidence considered most relevant, reliable, comprehensive and theoretically appropriate, AER considered that a reasonable range for gamma lies between 0.57 (based on market prices) and 0.74 (based on tax statistics). AER recommended a point estimate for gamma of 0.65.

NSWMC submits that this evidence is sufficient to support a move away from IPART's previous decisions, especially given the importance of gamma in the determination of the ROR and that the ACCC will be adopting assumptions consistent with AER's recommendations in future regulatory reviews. Given that IPART faces a choice between maintaining consistency with the past or with the future, and given the weight of evidence examined by AER, NSWMC submits that IPART should adopt AER's estimate of gamma, namely an assumed gamma of 0.65.

These issues are covered in detail in Section 3.7 of the ACIL Tasman Submission.

Question 9 What is the appropriate capital structure that should be adopted in the WACC calculation for the HVCN?

Question 10 At what level of gearing could ARTC obtain a BBB+ credit rating for debt?

A review of recent regulatory decisions supports the ARTC/Synergies conclusion that a range of 50% to 60% provides a reasonable starting point for the benchmark level of gearing. This range is also consistent with IPART's previously determined range of 50% to 60%.

NSWMC considers that the most relevant comparator to ARTC's HVCN is Queensland Rail Network's (QRN's) coal network, by virtue of the nature of the traffic and the size of anticipated investment program.

In its December 2005 decision on QR's Draft Access Undertaking, QCA accepted QRN's proposal to maintain its existing capital structure of 55% debt and 45% equity. In its proposed access undertaking for 2009 (submitted in September 2008), QRN considered that the assumption of 55% gearing remains an appropriate long term target. This was despite QR forecasting a significant capital investment program. This comparator suggests a point estimate of 55% debt as the most appropriate gearing level for ARTC.

However given current capital market conditions, NSWMC would endorse moving to the bottom of ARTC/Synergies' proposed range (i.e. 50% debt) to provide an appropriately conservative gearing benchmark. At that gearing, NSWMC would expect ARTC to obtain a BBB+ credit rating for debt.

These issues are covered in detail in Section 3.3 of the ACIL Tasman Submission.

Question 11 What is the appropriate asset beta that should be used to derive the equity beta for estimating the cost of equity for the HVCN?

Question 12 Where does a rail operator with a revenue cap and mechanism for overs and unders sit within the spectrum of asset risks?

Question 13 What has happened or is expected to happen to the amount of coal transported through the HVCN since the global financial crisis?

Question 14 What is an appropriate equity beta to meet customer demands for new investment and enhanced service?

ARTC/Synergies propose a range for asset beta of 0.5 to 0.6 and argue that beta should be set towards the high end of the range to reflect the risk ARTC faces given its significant investment program. For reasons set out in detail in the ACIL Tasman Submission, NSWMC does not find the arguments put forward by ARTC/Synergies and the preliminary view put forward by IPART in the Discussion Paper, that investment in new mines creates significant asymmetric risk and that that asymmetric risk should be compensated for in the beta value, to be convincing.

Similarly, NSWMC considers that the ARTC/Synergies arguments, that the scale of the investment program relative to the existing RAB increases ARTC's risk, are unconvincing and notes that similar arguments have not been accepted by other regulators. For example, in the case of the Victorian rural water companies, the initial Regulatory Asset Value was set to zero – so that new investment was infinitely greater in scale – yet this was not seen as influencing the degree of asymmetric risk.

Moreover, as highlighted in Section 3.6 of this Submission, ARTC faces virtually no access pricing risk on its new investments and has a range of options open to it to mitigate its demand risk, including long-term, take-or-pay contracts, customer capital contributions and reduced depreciation lives where the economic life of a line segment is reduced due to planned closures.

Finally, NSWMC rejects ARTC/Synergies' argument that ARTC faces the regulatory risk of having capital expenditures disallowed and that this risk is asymmetric. IPART also expresses the preliminary view in the Discussion Paper that this risk should be considered along with other asymmetric risks faced by ARTC. NSWMC submits that, while such regulatory risk has been raised by a number of regulated network industries, regulators have rarely recognised this as a source of asymmetric risk requiring compensation in the WACC.

In considering appropriate beta values for HVCN, precedent from other relevant regulatory decisions, ACCC's 2002 and 2008 determinations of ARTC's Interstate Access Undertaking, QCA's December 2005 approval of QRN's access undertaking and ESC's 2006 determination for the Victorian Rail Access Regime, suggests asset betas in the range 0.35 to 0.50.

NSWMC submits that the asset beta of 0.44 determined by IPART in its 2004 Review, near the upper bound of IPART's range of 0.32 to 0.46, remains a relevant benchmark for ARTC's HVCN. The equity beta of 0.88 implied by IPART's determination is consistent with that determined by QCA for QRN's network. The QCA allowed a positive debt beta of 0.12 with a gearing of 50% debt, which lowers the cost of equity. After adjusting for the debt beta, the QCA asset beta of 0.50 is equivalent to an asset beta of 0.44 for ARTC. QCA regarded this asset beta as an upper bound.

NSWMC submits that there should be no change to this conservative asset beta of 0.44 in the absence of any evidence that the degree of systematic risk has changed.

These issues are covered in detail in Section 3.5 of the ACIL Tasman Submission.

3.4 WACC Methodology and Taxation

In Section 4.5 of the Discussion Paper, IPART has indicated that its preliminary view is to maintain its current approach to the treatment of tax and to determine a pre-tax WACC and use the statutory tax rate of 30%.

With accelerated tax depreciation schedules, use of the statutory tax rate will over-estimate the tax burden in the presence of a significant capital expenditure program. Given the size of the capital expenditure program foreshadowed by ARTC, its effective tax rate is likely to be substantially lower than 30%.

In these circumstances, NSWMC submits that IPART should adopt a post-tax approach to the WACC. This would take account of ARTC's large capital expenditure program and be consistent with current regulatory practice in many jurisdictions, and in particular with the approach used for ARTC's Interstate Access Undertaking.

However should IPART wish to maintain consistency with its previous decisions by retaining a real pre-tax approach, it would be important to use an appropriate effective tax rate. Otherwise the rate of

return allowed to ARTC will be inconsistent with the returns allowed by the ACCC, and substantially above the level required by an efficient infrastructure provider. There would also be a significant inconsistency in the treatment of taxation between ARTC's Interstate Network and its HVCN.

NSWMC has assumed an effective tax rate of 10% in determining its proposed WACC and submits that IPART should estimate an appropriate effective tax rate as part of its determination of WACC.

This issue is covered in more detail in Section 2.1 of the ACIL Tasman Submission.

3.5 Single Point Estimate versus 75th Percentile of a Range

In Section 5.2 of its Discussion Paper, IPART canvases the issues of presenting a range for the WACC versus a single point estimate and, where a range is presented, the point in the range that should be chosen.

NSWMC submits that a single point estimate is more appropriate. If a WACC range is used, NSWMC submits that a single point estimate should be used for many of the WACC parameters (identified below) and for the others, the range should evenly straddle the most likely value. Further, it is not appropriate to select an estimate above the mid-point of the WACC range. NSWMC's reasons follow.

- Firstly, for many of the parameters a single point estimate is appropriate. The risk free rate, debt margin and market risk premium have previously been determined by IPART and recently been determined by AER as single point estimates.
- Secondly, representative values for parameters such as market risk premium, debt to total assets, gamma and the effective tax rate can be effectively determined, and are determined by other regulators, as single point estimates.
- Thirdly, selecting an ROR above the midpoint of a range is much more generous than selecting one parameter, such as an equity/asset beta, towards the upper end of a range of estimates and combining it with single point estimates of other parameters, such as the market risk premium. For example, in its determination of WACC parameters for QRN, the QCA selected an equity beta at the upper end of the range for that particular parameter only.
- Finally, there is conservatism built into the single point parameter values submitted by NSWMC in that two of the values are at the upper end of their appropriate ranges
 - for the gearing, NSWMC's single point value of 50% is at the upper end (in WACC terms) of the range of 50% to 60% determined by IPART in its 2004 Review and the range of 50% to 55% proposed by ARTC/Synergies for this Review, and above the value of 55% determined by QCA for QRN
 - for the asset beta, NSWMC's single point value of 0.44 is at the upper end of the range of 0.32 to 0.46 determined by IPART in 2004 and the upper bound (adjusted for debt beta) of 0.44 determined by QCA for QRN.

Further, even if a WACC range methodology is used, NSWMC submits that, for the reasons set out in Sections 3.6 to 3.9 of this Submission, selecting an estimate above the mid-point of the WACC range is not justified on the basis of

- compensating for asymmetric risk
- asymmetric consequences of regulatory error
- consistency with previous regulatory decisions
- the future investment needs of the HVCN

3.6 Treatment of Asymmetric Risk

In Section 5.1 of the Discussion Paper, IPART has raised the issue of asymmetric risk from stranded assets and regulatory risks and sought comment on three aspects of this matter.

Question 15 Should asymmetric risk be considered in choosing the WACC for the Hunter Valley Coal Network?

Question 16 What is the likelihood of sectors being stranded or underutilised?

Question 17 Is there scope to use long-term contracts or other mechanisms to remove asymmetric risk?

NSWMC submits that compensating for asymmetric risk should not be considered in determining the WACC for the Hunter Valley Coal Network, for several reasons.

Firstly, the risk of asset stranding is low.

- ARTC's assumption about more remote mines closing first is not necessarily true as rail transport costs are a relatively small proportion of FOB costs and could be outweighed by other positive coal price and cost factors that might favour some mines over others (such as coal quality, seam thickness, stripping ratio, scale of operation, other productivity factors, other operational factors and infrastructure availability).
- Even with the significant escalation in mining costs during the past two years, there is scope for Hunter mines to take a considerable price decrease before mine closures would be contemplated. Moreover Hunter coal is of good quality, is mined efficiently and uses efficient rail infrastructure. It is located close to many major Asian markets and is strongly competitive in world terms. In the event of a major downturn in demand for coal, Australia and the Hunter region are likely to be among the least affected.
- The production of coal in Australia and the Hunter region, while occupying a large share of the world seaborne coal trade, is only a very small proportion, less than 5%, of world production. This means that, provided Australia remains in the lower section of the world cost curve, then continued expansion can be expected.
- The coal reserves and resources in the Hunter region, including those to the west of the Hunter Valley along the Ulan rail line and in the Gunnedah Basin along the Muswellbrook to Narrabri line are very substantial, and require very substantial investment by the mining companies to develop. By comparison, the amount of rail infrastructure required to support the mines is relatively small, and does not make a substantial difference to the total cost of extracting the coal.
- Decisions to develop, or to continue to develop new mines are being made by the coal producers in full knowledge of the current global economic position. They are usually justified on an economic life of at least 20-25 years. The present downturn may mean that plans for more marginal mines will be deferred. This in itself makes it less likely that new mines will be closed down after they have been developed. The coal producers will be examining the economics of new mines very carefully, and ARTC will be able to probe its customers about mine prospects before committing to extension of the rail infrastructure.

The low risk of asset stranding is supported by Wood Mackenzie's assessment of supply and demand for Australian and Hunter region coal in international markets.

- Metallurgical coal demand will continue to be driven by the Asia-Pacific market although the key centres of import growth are moving from the North Asian economies of Japan, South Korea and Taiwan to the emerging economies such as India and China. Thermal coal demand will continue to be dominated by the Asia-Pacific region, with Atlantic market growth stagnant, and growth in the Asia-Pacific economies will drive thermal coal import growth to 2025 (the present horizon of the quantitative supply/demand forecast).
- As a result, the international coal market will change markedly in the next 15 years and the Asia-Pacific market will replace the Atlantic market in importance in driving global demand. By 2025 the key import demand centres for coal worldwide will be predominantly in the Asia-Pacific market where the growth in demand is unlikely to be affected by carbon costs given the reliance of the emerging economies on domestic and imported coal to for power generation and to supply their domestic steel industries.
- Australian supply will be a key contributor to meeting the changing growth profile, particularly in the thermal coal market where there will be a large reliance on growth through Newcastle. Wood Mackenzie's trade modeling indicates there is significant additional demand for thermal coal supply from the port of Newcastle in the seaborne market and Hunter region coal exports are forecast to grow at over 5% per annum compound to around 175Mtpa by 2020.

Secondly, ARTC is able to mitigate any stranding risk

- Stranding risk can be mitigated or avoided altogether by the agreement of up front, long term, take-or-pay (TOP) contracts and by requiring capital contributions from new mines requesting extensions to the HVCN.
- ARTC's HVAU to be submitted to the ACCC proposes evergreen (i.e. life of mine) access contracts with a minimum term of 15 years and access charges with a large TOP component set by ARTC to recover the capital costs of all its new investment and its other fixed costs. This will reduce risk to ARTC because the contract term is much longer than the five or less years of most access contracts under the current NSWRAU, and there is a TOP charge unlike the current contracts.
- There is also provision in the HVAU for ARTC to require a mine seeking additional access capacity to meet the cost of that additional capacity by making a capital contribution, periodic payments or a TOP commitment over the economic life of that additional capacity.
- Further, under the HVAU, ARTC is not obliged to commit to new capital investment projects unless it has contractual commitments from the users covering the additional capacity resulting from the capital investment.

Thirdly, ARTC's revenues are protected under the regulatory regime

- ARTC faces virtually no access pricing risk on its existing RAB and new investments. ARTC is able to set access charges annually to provide revenue at the ceiling revenue cap, irrespective of changes in traffic levels, for the constrained network which carries around 95% (by tonnage) of current coal traffic). It intends to do the same for the unconstrained network when traffic levels from the coal fields on the Muswellbrook to Ulan line increase, as coal producers and ARTC project they will to meet market growth. There is also an overs and unders regime to ensure actual revenue reaches the ceiling cap.
- ARTC is further protected by the capacity of coal producers to pay higher access charges in the event that traffic levels were to fall, even substantially.
- Most line sectors serve many or at least several mines, and train paths are largely interchangeable between mines, which reduces the risk of revenue being under-recovered. Where a sector serves one or few mines, the ARTC is able to request up-front capacity payments from miners before making new investments.
- ARTC claims that it has revenue certainty only for the duration of the regulatory period and not beyond. In NSWMC's view this is not the case. The rules for determining ceiling revenues are well defined and will continue to be so, even if regulatory jurisdiction passes to the ACCC. Moreover, the ACCC has made it clear that it does not favour re-valuing existing assets which also reduces ARTC's revenue risk.
- Relatively short depreciation lives allow accelerated depreciation to be recovered in line with the expected life of mines rather than the economic lives of the rail assets involved.

In summary, NSWMC submits that ARTC's new investments do not face significant risk of asset stranding. Transport costs make little difference to the viability of a mine, decisions to invest in new mines are being made on a rigorous basis and in full knowledge of the current world outlook, the operation of the regulatory regime serves to protect ARTC's revenues and there are a number of actions that can, and are, being taken by ARTC to reduce its revenue risk.

Further, even if there were deemed to be an asymmetric risk from asset stranding, there is no strong regulatory precedence for choosing an equity beta on the high side of the range to compensate for that risk. The preferred regulatory solution is to allow for asymmetric risk through the calculation of a self-insurance premium.

A number of regulators (ACCC, ESCOSA, QCA) have agreed that asymmetric or truncated returns can be adjusted for via the cash flows, with the addition of a self-insurance premium to operating costs to ensure that the WACC is applied to cashflows which reflect the true expected value of outcomes, as required by the CAPM.

In this eventuality, NSWMC notes that there are strict requirements for costs to be recognized as asymmetric. In particular, the regulated business needs to demonstrate that it has resolved to self-insure for the identified events, and will not make any future claims to recover the costs in the event of the adverse event occurring. In this instance, it is far from clear whether and how ARTC would in fact

bear the consequences of “self-insured” asset stranding since the operation of the regulatory regime would enable the ARTC to recover lost revenues from other users on any given line segment.

These issues are covered in more detail in Section 2.4 of the ACIL Tasman Submission.

3.7 Asymmetric Consequences of Regulatory Error

In Section 5.2.2 of the Discussion Paper, IPART has raised the issue of asymmetric consequences of regulatory error and sought comment on the following matter.

Question 19 Are the costs of setting the WACC too low greater than setting a WACC too high, taking into account ARTC’s proposed capital program over the coming years?

NSWMC submits that the costs of setting the WACC too low are not greater than the costs of setting it too high, notwithstanding ARTC’s proposed capital program.

Firstly, selecting an estimate above the mid-point of an overall WACC range is not justified on the basis of asymmetric consequences of regulatory error. Over-investment is costly also. In a report to the ESC, NERA suggested that:

...both under-investment and over-investment are costly, and it is not at all clear which is preferable. If over-investment gives rise to capacity that will not be utilised by reasonably anticipated future demand, the resources dedicated to overbuilding that asset could presumably have been better utilised elsewhere, eg, in the provision of alternative infrastructure services for which the consumer welfare associated with their provision may be equal or greater.

Secondly, NSWMC’s view is that the risk of under-investment in the HVCN is low. Although ARTC has identified a substantial investment program for the HVCN, NSWMC submits that ARTC should be able to fund the program

- In its submission, Synergies stated that, “as part of its 2008-18 Hunter Valley Strategy, ARTC is expecting to spend approximately \$1B on infrastructure enhancements and upgrades to the network over the next five years”.
- In its letter to ARTC on 18 January 2009, following a request by NSWMC, IPART requested that ARTC provide details of these planned investments in additional capacity for the HVCN. In NSWMC’s view, this information is relevant to, inter alia, consideration of the ARTC’s ability to fund its planned investments. In its response on 15 February, IPART provided a list of projects without any estimates of the capital costs, the timing of the expenditure within the period and the track capacity that would result from the investment.
- ARTC stated that this information would be made available publicly in the yet to be released 2008-2018 Hunter Valley corridor investment strategy. In the information’s absence, NSWMC understands from the 2007-2012 Corridor Capacity Strategy released in November 2007 that ARTC was planning an investment program of \$990M for the HVCN and the contiguous line segment from Werris Creek to Narrabri (which is owned by Rail Infrastructure Corporation).
- This \$990M program included \$470M on the whole line between Muswellbrook and Narrabri, which will service the future Gunnedah Basin mines. For these mines, ARTC has foreshadowed that, before it commits to the major investments projects, it will potentially require up-front capital contributions from coal producers covering the cost of the investments, as well as long-term, take-or-pay tonnage commitments covering its other fixed costs.
- NSWMC understands that, under the Commonwealth Government’s recent Nation Building package, ARTC is to receive a \$1.2B equity injection to help finance a \$1.6B program of track upgrades and investment overall, including a \$580M equity injection for its planned program of \$1000M for the HVCN and the Werris Creek to Narrabri line segment owned by RIC.
- NSWMC also understands that ARTC may have received other Commonwealth Government support in relation to borrowing. Moreover, it has a very low actual gearing and it intends to require up-front, long-term, take-or-pay commitments by all coal users of the HVCN covering all its future investment in the Network as well as other fixed costs. Where necessary to fund particular investments, it also intends to require up-front capital contributions by coal users.

This issue is covered in more detail in Section 2.3 of the ACIL Tasman Submission.

3.8 Maintaining a Consistent Approach

In Section 1 of the Discussion Paper, IPART states that there is considerable merit in maintaining a consistent approach to the cost of capital across regulatory decisions. It expresses that view also in other sections of the Discussion Paper, particularly in relation to its previous decisions on gamma and the treatment of tax.

At the Roundtable on 1 April 2009, IPART Member, Mr J. Cox, observed that, given the limited life of his decision, there was a lot to be said for sticking to the status quo and updating it, unless there are strong reasons to the contrary.

On the other hand there are a number of areas, including gamma and taxation, where the weight of evidence appears to support changes to parameter bases and values. This is highlighted by the recent AER recommendations for WACC parameters. Moreover it is not certain that ARTC's HVAU will be accepted by the ACCC and, if it is accepted, the period before it replaces the NSWRAU is unclear.

Given that IPART faces a choice between maintaining consistency with the past or with the future, NSWMC submits that the weight of evidence is sufficient to support a move away from several of IPART's previous decisions, especially given the importance of the parameters concerned in the determination of the ROR.

The issue of consistency is also relevant to the choice of a WACC. Section 3.5 of this NSWMC Submission argues for the determination of a single point WACC. However, in Section 5.2.2 of the Discussion Paper, IPART addresses the issue of choosing a point within a WACC range and points out that it has chosen WACC estimates at various points within the range in the past.

If a WACC range is to be used, Section 3.5 of this Submission sets out why NSWMC submits it should be a narrow range, based on ranges in only one or two key parameters, and Sections 3.6 & 3.7 set out why it is not necessary or appropriate to compensate for asymmetric risks facing ARTC and the future investment needs of the HVCN. NSWMC submits that IPART should not be bound by its choice of the 75th percentile of the WACC range in its 2004 Review, should not use a broad range, and should not choose a point above the midpoint of the range.

3.9 Appropriate Rate of Return

In Section 5.2.2, IPART also seeks the views of stakeholders, in particular the users of the HVCN on an appropriate ROR. IPART states that, in making its 2004 decision for a 7.3% ROR, it placed considerable weight on the outcome of the public hearing where stakeholders indicated that an appropriate ROR fell within the range of 7.1 to 7.5 per cent. IPART asks

Question 18 What is the WACC that is acceptable to stakeholders?

NSWMC submits that, as set out in the detail of this Submission and that of ACIL Tasman, there are no grounds to increase the WACC as proposed by ARTC and Synergies.

Rather, the NSWMC and ACIL Tasman submissions show that there should be a reduction in the WACC from that determined by IPART in its 2004 Review. Subject to adjustment for the values of the market dependent parameters applying at the time of the IPART's Decision and determination of ARTC's effective tax rate, NSWMC submits that the ROR should be 5.25% (real pre-tax) as this value reflects

- current values for the market dependent or time-variant parameters (nominal risk free rate, inflation rate and the cost of debt margin)
- parameter values determined in accordance with other recent relevant regulatory decisions (nominal risk free rate, inflation rate, cost of debt margin, debt raising costs, market risk premium, gamma, effective tax rate)
- conservative parameter values appropriate for current circumstances (e.g. gearing, asset/equity betas)
- no compensation being necessary for asymmetric risk or other factors.

Although this ROR is lower than determined in IPART's 2004 Review, NSWMC's submits that it is properly determined under WACC theory and relevant current practice and, therefore, should be applied.

NSWMC has no wish to inhibit the efficient investment needs of the HVCN, quite the opposite. In view of the substantial growth in coal exports from the Hunter region projected for the regulatory period and beyond, NSWMC strongly supports prompt and efficient investment in capacity expansion by ARTC and other infrastructure service suppliers.

If ARTC believes that the ROR proposed by NSWMC or any other value under consideration by IPART will impair its capital program, NSWMC submits that ARTC should present evidence in support of its position. This is particularly necessary when the basis of ARTC's proposed increase appears contrary to relevant current WACC practice, which indicates that a lower ROR is more appropriate.

In its 9th April submission, ARTC has stated that it believes the existing setting for ROR is too low and may result in ARTC not being able to attract sufficient funding for the substantial investment program being contemplated for the HVCN.

However ARTC does not appear to have put forward any specific evidence that supports its position. It has not shown that it needs the ROR which it stated at the time of the 2004 Review was necessary to ensure investment in the HVCN. Nor has it shown that it will need the substantial ROR increase from that level which it has proposed in this Review.

Moreover, as set out in Section 3.7 of this submission, although ARTC is projecting a substantial capital program for the HVCN, NSWMC submits that ARTC should be able to fund the program. Specifically, ARTC

- has received a \$580M equity injection from the Commonwealth Government for its planned investment of approximately \$1000M in the HVCN
- may have received other Commonwealth Government support in relation to borrowing
- has a very low actual gearing
- intends to require up-front, long-term, take-or-pay tonnage commitments by all coal users of the HVCN covering the capital costs of all its future investment in the Network as well as other fixed costs
- also intends to require up-front capital contributions by coal users where necessary to fund particular investments such as the \$470M investment planned for the Muswellbrook to Narrabri line.

In this context, NSWMC submits that ARTC needs to support any claim that it needs a higher ROR to fund its planned capital program and could not fund the program at the current ROR or a lower ROR determined by IPART in this review.