

# **QCA WACC Forum**

Presentation of the Queensland  
Resources Council (QRC)

13 December 2013 (afternoon session)

# QRC introductory comments

- QRC's general approach to the UT4 WACC:
  - identify parameter estimates which best reflect prevailing market conditions and Aurizon Network's risk profile
  - seek expert advice to identify appropriate parameter estimates
  - where there is a reasonable range of values, adopt a central estimate rather than a lower or upper bound
  - take a generally conservative approach, in line with well accepted regulatory practice and expert advice
- On some parameters, the QRC has chosen to adopt a more conservative approach, despite some evidence that would support a more favourable value:
  - on the MRP, we accept that a reasonable range is 5% - 6%, even though the measures underpinning this range are accepted by the QCA's experts to be upwardly biased
  - on gamma, we accept that 0.5 is a reasonable estimate, and in line with regulatory practice, even though there is evidence from QCA and QRC experts to support a higher value (including from Professor Lally)

**Topic 4.**  
Asset / equity beta for Aurizon  
Network

# Asset /equity beta for Aurizon Network

- The equity beta should reflect the extent to which Aurizon Network is exposed to systemic and non-diversifiable risks
- There should be no tendency in favour of any 'upper bound' – it should be the estimate that **best reflects** Aurizon Network's risk profile
  - while there are risks associated with under-estimation, there are also risks associated with over-estimation
  - in this particular case, the risks associated with over-estimation are at least as significant – over-estimation will lead to network users paying more than the efficient cost of network access and is likely to diminish incentives for investment in complimentary facilities and ultimately damage the international competitiveness of Queensland coal industry
- Given the risk protections under the regulatory framework, Aurizon Network's exposure to risk is very limited – the equity beta estimate must reflect this

# Incenta's analysis

- The QRC agrees that energy network businesses are likely to be the closest comparators. However, we consider that Aurizon Network is likely to face lower risk exposure compared to energy networks:
  - many energy networks are subject to a price cap, rather than a revenue cap form of regulation, and supply is not subject to long term take or pay contracts
  - therefore, energy network businesses are likely to be more exposed to volume risk
  - energy network businesses are more exposed to domestic economic activity
- Incenta finds that, based on a conventional analysis, the asset beta for energy networks is around 0.35. At 55% gearing, this implies an **equity beta of 0.59**.
- The QRC disagrees with the inclusion of toll roads in the beta range. There are very significant differences between risk profiles for toll roads and Aurizon Network:
  - while toll road prices are often fixed, they are generally not subject to a periodic review whereby revenues are realigned with costs
  - toll roads are significantly more exposed to volume risk

# Comparability of US railroads

- The QRC agrees with Incenta that US class 1 railroads are not comparable.
- There are very significant differences between Aurizon Network and US class 1 railroads – for example:

Feature	Aurizon Network	US Class 1 Railroads
Product / service	Single commodity railway – transports coal.	Wide range of commodities carried, including coal, farm products, chemicals, motor vehicles, food products etc.
End customer	Coal mostly for export to Asian markets.	Many of the commodities shipped are for domestic consumption within the US. Even most of the coal that is shipped is mostly for domestic consumption (i.e. it used for domestic power generation).
Regulation	Revenue cap with true up mechanisms to protect against volume risk and review mechanisms to protect against cost risk	No ex ante revenue or price regulation. Only scope for ex post review of pricing where a rate complaint is made by a shipper on a particular movement.
Market power	No realistic alternative shipping option available to coal producers.	Railroads face competition from each other (on some routes) and from other modes of transport, such as trucking. For example in respect of farm products, rail only accounted for 29% of grain movements in the US in 2010, while trucking accounted for 58%
Contract duration	Long term take or pay contracts, typically 10 years	Not known, but likely to vary between operators, between routes and between commodities shipped.

# Beta for energy network businesses

- The QCA has previously stated that energy network businesses are likely to be closest comparators for Aurizon Network – although finding that energy networks are likely to have *greater* risk exposure (i.e. higher betas)
- The AER recently conducted a detailed review of its equity beta setting for energy network businesses. The AER found that the empirical evidence supports an equity beta between 0.4 and 0.7
- An equity beta of 0.4 - 0.7 for energy networks, re-levered for Aurizon Network's lower gearing (55%, compared to 60% for energy networks), implies an equity beta range for Aurizon Network of approximately **0.36 - 0.6**.
- Incenta's point estimate (0.73) is 14% higher than the "ceiling" for energy business identified by AER and twice as high as the "floor" value

# Asset /equity beta for Aurizon Network

- Consistent with the AER's approach and findings, the QRC proposes a range for Aurizon Network's equity beta of 0.4 – 0.6, with the midpoint of this range to be used in the WACC calculation – which is conservative
- This range is also consistent with:
  - Aurizon Network's more limited exposure to risk, compared with energy network businesses
  - Castalia's view, based on benchmarking, that Aurizon Network's equity beta should be lower than 0.6
  - analysis undertaken by Aurizon Network's consultant (SFG) which suggests an equity beta of approx 0.55 when non-comparable businesses (US railroads and transport companies) are removed from the analysis
  - Incenta's analysis, excluding toll roads, and with the beta for energy networks based on the conventional approach (and in line with the AER's very recent analysis)



# Benchmarking beta

- Castalia shows that on each of the relevant risk categories it identifies, Aurizon Network's exposure is relatively limited:
  - **Revenue risk:** Protected by revenue cap and true up mechanism, as well as long term take or pay arrangements
  - **Expenditure risk:** Protected by scope to review operating/maintenance cost estimates where certain trigger events occur; and by ability to seek and obtain pre-approval for the scope, standard and procurement methodology for capital expenditure projects
  - **Inflation risk:** Protected by ability to roll forward RAB based on actual inflation between regulatory periods
  - **Stranding / bypass risk:** Very limited scope for QCA to remove assets from the RAB, and as such, very limited risk of stranding
  - **Regulatory risk:** Mitigated by tendency of regulators to follow precedent and favour stability; and availability of legal review of decisions
  - **Political risk:** Review mechanisms available to address impact of any new Government taxes, levies or charges

# Benchmarking beta (2)

Castalia's analysis shows that:

- Aurizon Network is less exposed to risk than each of its case study businesses
- Aurizon Network is seeking a higher equity beta than its case study businesses

	Aurizon Network	SDP	Electranet	GasNet	Aurora	Telstra
Revenue risk		-	-	++	++	++
Expenditure risk		++	++	++	++	++
Inflation risk		*	*	*	*	+
Stranding / bypass risk		+	*	+	*	++
Regulatory risk		+	-	-	-	++
Political risk		+	*	*	*	+
Other risk		+	*	*	*	+
Overall risk		+	+	++	+	++
Equity beta re-levered for 60% gearing	1.13 (proposed)	0.7	0.8	0.8	0.8	1.05

Key:

- + = Case study slightly greater risk than Aurizon, Network ++ = significantly greater risk
- = Case study slightly less risk than Aurizon Network, -- = significantly less risk
- \* = No significant difference between case study and Aurizon Network

**Topic 5.**  
Cost of debt for Aurizon Network  
(DRP)

# Cost of debt methodology

- As noted in the earlier session, QRC would advocate :
  - using the Bloomberg fair value curve as the primary method
  - where extrapolation is necessary, using the paired bonds approach
  - using the simple portfolio approach as a cross-check
  - only using the portfolio approach as the primary method where either Bloomberg does not provide fair value estimates relevant to the benchmark credit rating and term, or Bloomberg's estimates are demonstrably inaccurate
- In the case of Aurizon Network's proposed averaging period (20 business days ending 31 October 2013):
  - There is no evidence to suggest Bloomberg fair values cannot be relied on
  - In fact, Bloomberg appears accurate. Incenta finds that 7 year BBB yield indicated by the Bloomberg FVC was very close to actual pricing of the Aurizon 7-year BBB+ bond issued around the same time (5.89% indicated by the Bloomberg FVC, compared to 5.91% annualised yield on the Aurizon bond)

# Benchmark assumptions

- QRC agrees that BBB+ is an appropriate credit rating assumption for Aurizon Network at the current time, based on Incenta's analysis
- QRC does not agree that a 10 year term of debt assumption is appropriate for Aurizon Network:
  - this recommendation from Incenta is based on analysis of debt financing practices of 5 energy network business
  - the Incenta recommendation assumes that Aurizon Network would face “*very similar re-financing risk issues as regulated energy networks*”
  - this assumption is inconsistent with the very recent practice of Aurizon Network itself – Aurizon Network has issued its first BBB+ rated bond at a 7 year term
  - it cannot be assumed that this first issue is somehow anomalous and that Aurizon Network will change its financing practices in future, to be more in line with the practice of regulated energy network businesses

# Benchmark assumptions (2)

- The benchmark term to be applied to Aurizon Network should be based on evidence of the efficient financing practices of similar businesses – i.e. regulated below-rail export coal infrastructure businesses
  - recent evidence (Aurizon Network’s capital raising) indicates a term shorter than 10 yrs
  - Incenta’s recommendation of 10 years does not the evidence of financing practices engaged in by regulated below-rail export coal infrastructure businesses, and instead relies on analysis of energy network businesses.
- Applying a shorter term assumption for the DRP (5 or 7 years) would be consistent with recent practice of Australian regulators:
  - since April 2011, IPART has applied a 5 year term-to-maturity assumption for measuring the cost of debt (and risk-free rate), based on expert advice from Professor Kevin Davis
  - the ERA also adopts a 5-year term for estimating the debt risk premium and the risk-free rate
  - the AER has recently indicated in its draft rate of return guidelines that it will adopt a 7-year term to maturity assumption

# Cost of debt for Aurizon Network

- QRC would propose that the cost of debt for Aurizon Network be calculated:
  - applying a risk free rate with a term matching the length of the regulatory period (as recommended by Associate Professor Lally)
  - assuming a BBB+ benchmark credit rating for the DRP (as recommended by Incenta)
  - assuming a term to maturity of 5 years for the DRP
  - using the Bloomberg BBB fair value curve to estimate the DRP, extrapolated if necessary using the pair bonds method (although no extrapolation would be necessary if the assumed term of debt is 7 years or less)
  - including debt raising costs of 9.9 basis points per annum (as recommended by Incenta)
  - including interest rate swap costs of approximately 11.3 basis points (as recommended by Incenta / Evans & Peck)