

20 January 2014

Queensland Competition Authority
GPO Box 2257
Brisbane Qld 4001

AURIZON NETWORK: REGULATORY CAPITAL STRUCTURE

DBCT Management (DBCTM) is pleased to have the opportunity to make this submission to the QCA's Aurizon Network Specific Paper on Regulatory Capital Structure and Asset/Equity Beta.

Dalrymple Bay Coal Terminal (DBCT) is a multi-user coal export facility located 38 kilometres south of Mackay at the Port of Hay Point. DBCT is owned by the Queensland State Government and is leased to DBCT Management (DBCTM) through a 50 year lease with a further 49 year option.

DBCTM is managed by Brookfield Asset Management's (Brookfield), Infrastructure Group (Brookfield Infrastructure). Brookfield is a global asset manager focused on property, renewable power and infrastructure assets with over \$175 billion of assets under management.

DBCT is declared for third party access under the Queensland Competition Authority Act with terms and conditions of access regulated by a QCA approved access undertaking.

The views that we have set out in this submission reflect DBCTM's preferences for setting the regulated rate of return from the perspective of an infrastructure investor, given DBCT's unique circumstances and characteristics. Some of the issues discussed herein therefore extend beyond the specific issues raised in the QCA's Aurizon Network Specific Paper on Regulatory Capital Structure and Asset/Equity Beta.

Preference for a commercially negotiated rate of return

In 2010 the rate of return that DBCTM proposed to the QCA was negotiated and agreed with terminal users as part of an overall agreement for resetting the access undertaking.¹ The ability to reach a commercially negotiated outcome with its users places DBCTM in a unique position among QCA regulated entities.

In 2010 all parties benefitted from taking a commercial approach to achieving a negotiated outcome. Going forward, DBCTM will now always seek to reset regulatory parameters, including (and especially) the rate of return, through commercial negotiation with users in the first instance.

¹ Refer DBCT Management, 2010 Access Undertaking Submission, page 11



The approach taken by DBCTM allowed the QCA to approve the 2010 DAU without amendment. Specifically, the QCA cited the reasonableness of DBCTM's claims and the support of its customers, as factors which facilitated its expedited approval.² In approving the 2010 DAU, the QCA noted that DBCTM used a methodology for determining the weighted average cost of capital (WACC) that was not consistent with the QCA's WACC methodology at the time. For the 2010 DAU DBCTM proposed to roll forward the WACC parameter values determined in the 2006 undertaking. In particular, DBCTM proposed:

- 1) re-estimating the time-variant WACC parameter values (e.g. the risk-free rate and debt margin) using the same methodology that was used in the 2006 undertaking; and
- 2) retaining the other key parameter values (e.g. the equity beta, gamma and the market risk premium) from the 2006 undertaking.

The QCA's approval of the 2010 DAU did not imply that the QCA accepted DBCTM's proposed WACC methodology, but rather approval recognised that the WACC methodology proposed was part of a negotiated package of arrangements agreed with users.

Our preference remains for the rate of return to be agreed as part of a package of arrangements for access agreed on commercial terms with the users, with the QCA acting only as an arbitrator in the last resort should negotiations fail.

This approach enables us to best meet the specific needs of terminal users by trading off certainty of investment returns for access conditions that are favourable to the users. We consider that it is the most effective way of ensuring that a rate of return is set that will encourage investment in further capacity expansion.

Importance of stability of returns

Infrastructure assets are, by their nature, long-lived investments which typically require significant upfront capital commitment (including debt finance), have long payback times and limited alternative use.

Stability of returns over time is important because it provides investors with certainty.

"To really make infrastructure investing attractive in a given jurisdiction for us, we need that consistency and predictability of the regulatory framework. When you're investing (as I like to say) in quarter centuries, as opposed to the next quarter, 90 days, that regulatory framework and that consistency have to actually transcend any given government. Because the asset is going to outlive a government, which may only be around for five years, let's say, in a typical democratic state. If a jurisdiction can prove that and demonstrate that over a period of time, capital will find its way to that jurisdiction."³

Prospective change to regulated rates of return creates investment uncertainty and of itself increases the hurdle rate of return that investors demand. As RARE Infrastructure has previously observed in the context of a submission to the AER:

² Refer QCA, Final Decision, Dalrymple Bay Coal Terminal, 2010 Draft Access Undertaking, September 2010, page iii

³ Comments from Mark Wiseman, president and CEO of the Canadian Pension Plan Investment Board. Refer http://www.mckinsey.com/insights/engineering_construction/mark_wiseman



“From an investor’s perspective, stability of equity returns and dividends paid out is more important than certainty of the model being applied. The previous rules delivered some mechanical certainty in terms of knowing how the parameter estimates would be combined together, however the resulting WACC and CoE was highly sensitive to spot bond yields (so there was no certainty of allowed returns). A more stable Return on Equity would enhance clarity for all investors, and boost the desirability of Australian network businesses in the global investment universe (leading to lower cost of capital, which is in consumer interests).”⁴

In Australia, the rate of return is typically estimated using the Capital Asset Pricing Model (“CAPM”) and WACC theory. In regulatory reviews changes to the rate of return can come from three sources:

- 1) Changes in capital markets (which can affect market-driven parameters as well as investor risk tolerance)
- 2) Changes in the risk profile of the regulated asset
- 3) Changes or developments in finance theory.

Changes in capital market conditions are inevitable. Where they relate to interest rates, they are usually measurable.⁵ It is entirely appropriate that prevailing market conditions should be examined and considered each time the regulated rate of return is reset. Similarly, market testing of estimated rates of returns by cross-checking against prevailing evidence on investor required rates of returns should be encouraged.

In our view some of the debate that goes on around changes in risk profiles and developments in finance theory that accompany rate resets is less appropriate and is potentially damaging to the stability and certainty desired by investors. We examine these two areas below.

Returns should be commensurate with risk

The fundamental principle that an appropriate expected rate of return on an investment must be consistent with the level of risk underlying that investment is entirely accepted and uncontroversial. In the context of the CAPM, investors in a risky asset should expect a rate of return which is equal to the risk free rate plus a risk premium. The size of the risk premium is a function of the market risk premium (i.e. the extra return that investors demand over and above a risk free rate to invest in the market portfolio) and the sensitivity of the asset’s return to the overall market (i.e. beta).

It follows therefore that where the risk profile and the level of risk attached to an investment remains unchanged over time, so should the rate of return, given unchanged capital market conditions. The return may still fluctuate due to changes in the supply and demand for funds in the capital markets, but the parameters that measure the underlying risk of the investment should remain stable where no changes to the risk profile have occurred.

Conversely, we recognise that it may be appropriate to change the risk-based parameters underlying the allowed rate of return where characteristics of the investment have changed

⁴ Refer <http://www.aer.gov.au/sites/default/files/RARE%20Infrastructure%20-%202014%20June%202013%20-%20Submission%20-%20Rate%20of%20return%20guidelines%20consultation%20.pdf>

⁵ Changes in the parameters such as the market risk premium are more difficult to directly measure, although there are various ways of inferring the value of such parameters.



that translate into changes to its underlying risk profile or the overall level of risk. For example, where infrastructure owners propose changes to access arrangements that reduce the business risk attached to operating the asset, then these adjustments may be approved subject to a *quid pro quo* reduction in the rate of return. These changes may, for example, relate to requirements for access, asset planning and expansion protocols or system rules.

Evidence to support the view that operating arrangements can affect the cost of capital can be seen in the electricity sector by comparing cost of capital estimates for merchant generators (who operate on short term contracts or on the spot market) versus contracted generators. Analysis previously undertaken by KPMG for the Energy Reform Implementation Group (as part of a study on impediments to investment in Australia's energy market) highlights that the cost of capital differential (as measured by the differences in the discount rates applied by investment analysts in their valuations of such assets) may be as high as 2%.⁶

The process of commercial negotiation of a rate of return as part of a package of access arrangements facilitates exactly these sorts of trade-offs, without the need for regulatory intervention.

Developments in finance theory

In the regulated sector, particularly in jurisdictions such as Australia and the United Kingdom where a large degree of reliance is placed on theoretical models to determine the regulated cost of capital, stability of returns is sometime put at risk from changes and developments in academic thought. Finance professionals and academics are constantly working to refine theoretical models.

The value attached to imputation credits provides a good case study of how theoretical debates can evolve. The value of imputation credits has been debated extensively in the context of regulatory determination for most of the past decade, and the arguments continue to evolve. Businesses favoured a lower value for gamma, arguing that there was little evidence that it affected investors' required rates of returns, whilst the regulatory community supported a higher value stating that investors derived substantial value from franking rebates.

In Australia, a value of 50% was widely used (with some exceptions) in regulatory determinations for 'gamma' for many years up until the time the AER completed the 2009 review of WACC parameters. Over the same period, many empirical studies on the value of imputation credits were also undertaken (some published) but the evidence remained somewhat mixed. As a result, debates on the appropriate value for this parameter featured heavily in most regulatory determinations. Following the 2009 review, the AER decided to apply a value of 65% to gamma based on evidence about the value of distributed credits.

In 2011, following an appeal against the AER by Energex, Ergon Energy and ETSA Utilities to the Australian Competition Tribunal ("ACT"), it was determined that the AER had erred in applying a value of 65% for gamma and that the appropriate value should be 25%, based on the evidence that was before the AER in the regulatory determination process.⁷

⁶ KPMG, Energy Reform Implementation Group, Impediments to Investment in Australia's energy markets: The views of investors, November 2006, page 63-64

⁷ Australian Competition Tribunal, Application by ENERGEX Limited (Gamma) (No 5), 2011



Guided by that decision, the AER has applied a value of gamma of 25% in a number of determinations since, however, in its most recent review of the rate of return, which was undertaken to develop its rate of return guidelines under the National Electricity Rules and National Gas Rules, the AER has reverted to a value of 50%. This is despite recent evidence cited in a submission by the Energy Networks Association which suggests that the case for this change is weak.

The debate around the value of imputation credits – which appears to have gone full circle - illustrates how new theories move in and out of vogue and when regulators follow these trends the stability of returns and therefore the certainty sought by investors can be negatively impacted. We recognize that financial models will evolve and improve over time and we would not stand in the way of progress, but we will always encourage regulators to move slowly and cautiously to adopt new approaches and be guided by commercial practice in deciding if an approach should be adopted. In this way, change will occur systematically and in a predictable manner, without undermining investor certainty.

Investors allocate capital to where the most attractive, risk-adjusted rate of return can be earned. Capital for infrastructure investment competes on this basis on a global scale. As RARE Infrastructure has previously noted:

“As a fund manager investing globally, we have a choice to invest in Australian regulated networks or in other securities. Our investment universe includes over 200 listed securities with assets and operations in many developed and developing countries around the world.”

“Higher allowed returns and lower variability of those returns will encourage us to direct more money into Australian regulated assets. Our company has a preference for investing into energy networks with stable regulation and predictable cash flows.”⁸

Capital markets

It is entirely appropriate that the prevailing market conditions should be examined and considered each time the regulated rate of return is reset.

The Market Risk Premium (MRP), i.e. the amount by which the expected return on an investment portfolio exceeds the risk-free rate, is influenced, at least partially, by current and forecast conditions in the capital markets. It can be viewed as a measure of investors' appetite or tolerance of risk. Because it is forward-looking, measuring the MRP can be difficult.

Regulators such as the AER have previously conceded that the forward-looking MRP is not constant, but extensive debate nevertheless remains over what the “current” MRP is. As a result, many Australian regulators have chosen to apply a constant value of around 6% (reflecting long run historical averages) in regulatory determinations under a wide range of market conditions, including during the peak of the GFC and European debt crises, the 2001 recession and the mid-2000s bull market. Dissatisfaction with this approach amongst regulated businesses did not emerge until around 2011 when it was clear that regulatory determinations were producing unrealistically low rates of returns due to new lows in the 10 year government bond yield. This occurred due to the regulatory approach of combining current yields to set the risk free rate, but a long term historical average value to set the MRP.

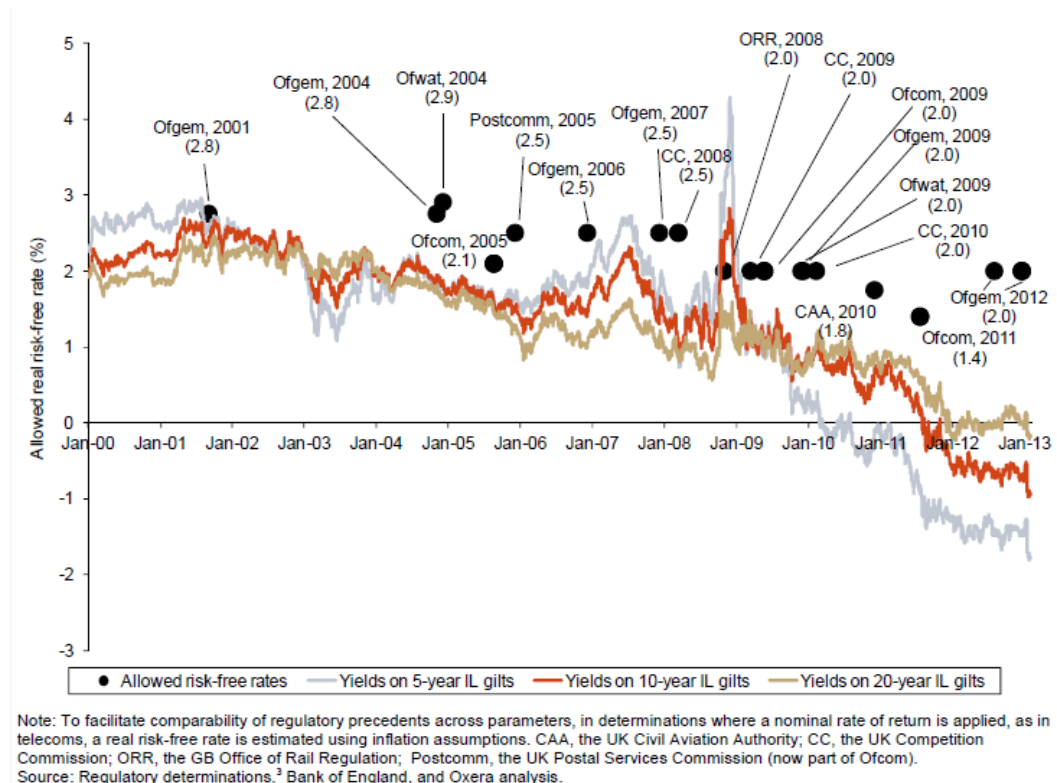
⁸ Refer <http://www.aemc.gov.au/Media/docs/RARE-Infrastructure-8146d316-f860-4be4-9f0b-902905293044-0.PDF>

We are concerned that the approach that has been adopted by regulators such as the AER in recent determinations (e.g. Victorian gas decisions in 2013) will lead to significant volatility in regulated rates of returns. The approach has in all likelihood locked into place material real prices increases, as 10 year bond yields have now risen to around 4.2% currently, as compared with rates of 3% to 3.5% applied by the AER in these decisions. How the regulator chooses to address these outcomes if they are realised in the future could also create additional uncertainty for investors.

We support an approach to setting the rate of return that recognises the relationship between the risk free rate and the MRP. That is, if the MRP is to be based on a long term historical average, the risk free rate should be set on the same basis. Alternatively, prevailing estimates could be used for both parameters.

Recent analysis by OXERA on UK regulatory returns indicates that regulators such as OFGEM have supported this approach, reflecting their view that the overall market rate of return (defined as the real risk free rate plus the market risk premium) is relatively constant over time.⁹

Figure 1: Real risk free rate assessed in UK determinations



OXERA observe that this potentially reflects a view that *“the directly observable decrease in government bond yields has been broadly offset by an increase in the observable ERP.”*¹⁰ Importantly, they note that:

⁹ OXERA, Agenda, What WACC for a Crisis? February 2013.

¹⁰ OXERA, Agenda, What WACC for a Crisis?, February 2013, page 5.

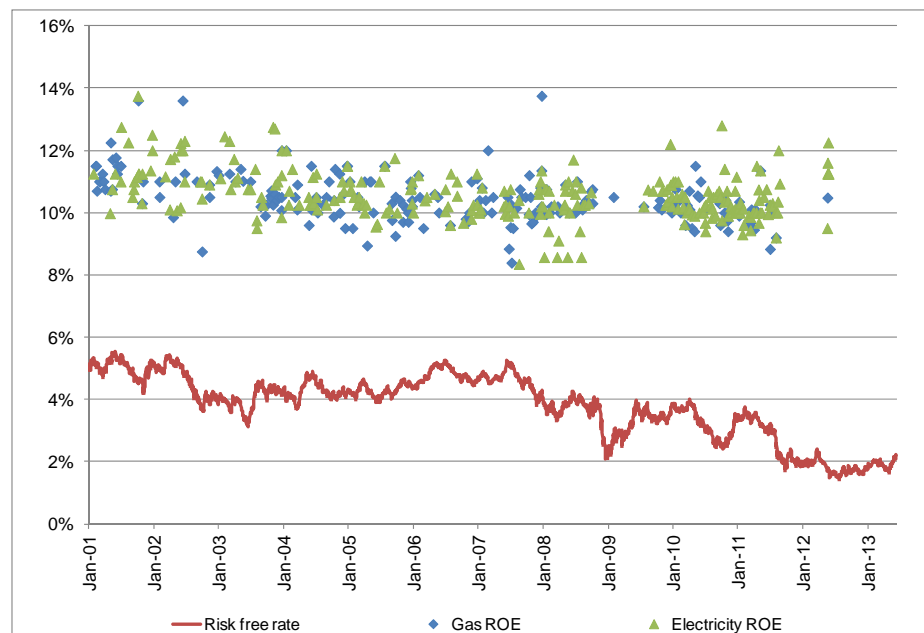
“Capital market volatility over the last five years has increased the uncertainty around current estimates, and also forecasts, of the WACC parameters over the duration of the typical regulatory control period. Consequently, regulators have had to exercise a far greater degree of judgment when determining the risk-free rate and the ERP.

Arguably, given the long-term investment horizon of the typical regulated entity, UK regulators have been prudent in not translating the significant reduction in government bond yields into an equivalent reduction in allowed returns. With the ERP not being directly observable, it has perhaps become more important since the financial crisis to check that the combination of the risk-free rate and the ERP is consistent with long-run overall equity market returns.”

“If regulatory returns had set lower allowed returns on the basis of lower yields, regulated prices and returns would have been significantly lower, which would have provided weaker incentives for investment. In this sense, regulators have behaved in a largely neutral and independent manner relative to the wider policy context. This may reflect a general assumption by regulators that, in situations of uncertainty, it is preferable to err on the side of caution in order to mitigate potential consequences of underinvestment.”¹¹

This approach of maintaining a relatively constant overall equity market rate of return over time, despite the observed recent decline in index-linked government bond yields, has also been evident in the US.

Figure 2: Allowed returns on equity versus risk free rate assessed in US regulatory determinations (nominal)



Source: Public Utilities Fortnightly, EY analysis

It is clear that regulators in both the UK and USA attach some degree of importance to maintaining stability in allowed rates of returns under conditions of uncertainty.

¹¹ OXERA, Ibid, page 5

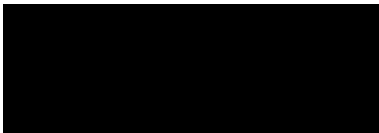


In Australia, current stock market volatility remains above the long-run average and this translates into investors requiring a return on equity above pre-GFC levels. It is likely that the forward-looking MRP, where this volatility persists, will be significantly above the long-run historical average.

Thank you again for the opportunity to comment. We would be pleased to clarify any of the above should it be required and look forward to your consideration of the issues raised.

Yours faithfully

DBCT Management Pty Ltd



Anthony Timbrell

Chief Executive Officer