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Queensland Competition Authority

GPO Box 2257

Brisbane Qld 4001

By website: www.qca.org.au/submissions

Dear QCA,

Re: Rate of Return Review

Thank you for the opportunity to comment on the QCA's review of its methodology in calculating the rate of return to apply to regulated infrastructure in Queensland.

INTRODUCTION

ARTC was created in 1998 through an Inter-Governmental Agreement (IGA) signed by the Commonwealth, Victoria, South Australia, NSW, Western Australia and Queensland and is a company under the Corporations Act, whose shares are held by the Commonwealth of Australia. The formation of ARTC was a key plank in the significant focus on rail freight productivity in the late 1990's which also included the creation of Australian Transport Commission targets and significant government investment to enhance the rail network's performance.

ARTC was established as a consolidated interstate rail track owner to create a single process for access. ARTC's charter is to:

- Improve performance and efficiency of interstate rail infrastructure;
- Increase capacity utilization;
- Listen, understand and respond to the market;
- Operate on sound commercial principles; and
- Provide shareholders with a sustainable return on capital invested.

ARTC currently has responsibility for the management of around 8,500 route kilometres of standard gauge track, in South Australia, Victoria, NSW and Western Australia which includes the interstate freight network in those states as well as the Hunter Valley Coal Network in NSW. In Queensland, ARTC leases the section from the Queensland Border to the Acacia Ridge Terminal. Over these corridors, ARTC is responsible for, inter alia, the operational management and infrastructure maintenance of the network.

ARTC's Regulatory Environment

ARTC's network is subject to two voluntary undertakings with the ACCC, covering:

- The Hunter Valley Coal Network via the Hunter Valley Access Undertaking (HVAU); and
- The Interstate Freight Network via the Interstate Access Undertaking (IAU).

ARTC is also exposed to state-based regulation, especially in NSW where it is subject to annual compliance for some residual segments under the NSWRAU not covered by the HVAU or IAU.

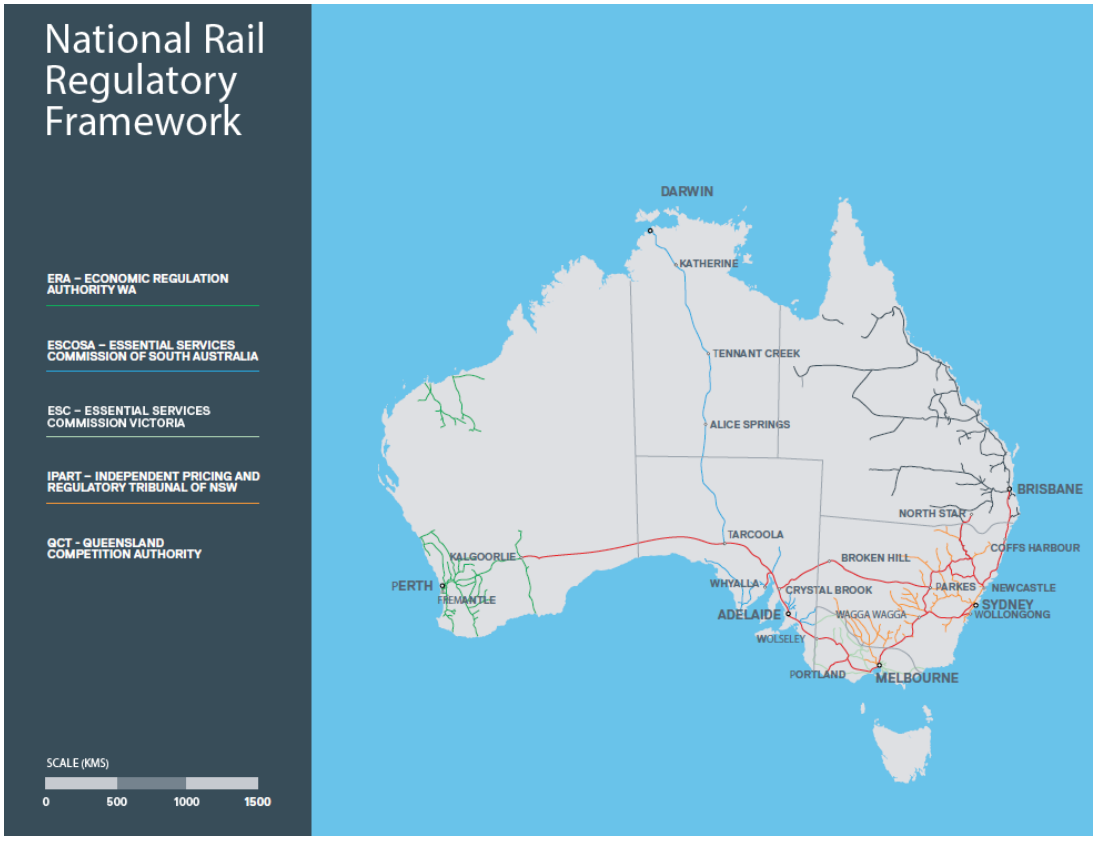
NATIONAL RAIL REGULATORY FRAMEWORK

In addition to voluntary undertakings under Commonwealth legislation, each state has legislation and an economic regulator applicable to defined assets within its jurisdiction. The outcome of this is a complex mix of state and Commonwealth regulation of assets; where the regulatory approaches in each state differ. Each regulator takes its own specific approach to the calculation of the WACC, the outcomes of which are highly variant as shown by a comparison of decisions made in 2017:

Regulator	**Return (Pre-tax real %)**
QCA (UT5 Draft Decision)	3.55%
ACCC (HVAU April 2017 Draft Decision)	4.60%
IPART (August 2017 Published estimate)	6.30%
ERA (Resource Railways)	10.56%

Each of these decisions assessed the efficient rate of return for a resource railway; but based on different assumptions covering WACC parameters, delivering vastly different results with a spread of 700 basis points.

The reasons for the differences include the use of different time periods in assessing the market defined parameters; to different approaches in defining the appropriate level of asset risk via the determination of asset beta.



Time Periods for market parameters

The preferred approach for the QCA and ACCC is to assess market-based parameters over a 20 day period ahead of the determination. This approach therefore results in the derived WACC adopting market volatility (notwithstanding the assumption that investors take a long-term view on matters such as inflation and risk because they seek stability). ARTC further believes that the inconsistent approach adopted by the ACCC and the QCA in its assessment of market based parameters such as the risk free rate being based on a 20 day moving average whilst the market risk premium is based on a 30 year average creates a downward bias in the return calculation that inefficiently compensates network owners.

The negative correlation between these parameters have been recognized by other regulators – most notably Ofgem in the UK and IPART in NSW. Ofgem's most recent estimates of return had regard to a report authored by the UK Regulators Network (Wright, Burns, Mason, and Pickford (2018), Estimating the cost of capital for implementation of price controls by UK Regulators, available at: https://www.ukrn.org.uk/wp-content/uploads/2018/06/2018-CoE-Study.pdf) which states at p48:

"A direct implication of our recommendations on the EMR and the RFR is that the implied market risk premium (MRP) automatically follows as the difference between the two numbers. Thus, since the assumed EMR is extremely stable, the implied MRP moves in the opposite direction (and one-for-one) with the RFR"

IPART effectively made the same point in a response to ESCOSA in respect of SA Water's rate of return (https://www.escosa.sa.gov.au/ArticleDocuments/21479/20200430-Water-SAWRD20-DraftDecisionSubmission-IPART.pdf.aspx?Embed=Y). It is worth reproducing this response in full below

Cost of equity

The difference between ESCOSA's cost of equity and ours arises from differences in methodology. We are making this submission because we feel there is public benefit in an open and transparent discussion of the underlying facts and theories.

ESCOSA, along with the AER and most other Australian regulators calculate the return on equity using equation (1).[2]

$$Re = (short\ term)Rf + \beta * (long\ term)MRP \quad (1)$$

As spot risk free rates are very low right now and the long-term MRP is lower than the current MRP, this procedure gives a low estimate of the cost of equity.

In contrast, we calculate the return on equity using equations (2) – (4).

$$(short\ term)Re = (short\ term)Rf + \beta * (short\ term)MRP \quad (2)$$

$$(long\ term)Re = (long\ term)Rf + \beta * (long\ term)MRP \quad (3)$$

$$Re = \frac{((short\ term)Re + (long\ term)Re)}{2} \quad (4)$$

In our view, despite the fact that it is widely used, the approach taken in equation (1) will generate biased estimates of the market cost of equity because it combines incompatible short term and long term market observations. As you note in your statement of reasons (p 156) Frontier Economics recommended that, because there is an inverse relationship between the MRP and risk-free rate, it is important to adopt an approach to estimating the required return on equity that pairs the risk-free rate consistently with the MRP. We agree with Frontier on this point.

Our approach avoids that problem. Both short-term and long-term cost of equity estimates employ matched MRP and risk-free rate observations. It is highly significant that our current and long-term cost of equity estimates are quite similar to each other. Both of these numbers are higher than ESCOSA's equity return. We use the midpoint of the two in our WACC calculation.

We consider that our procedure generates values that correspond to equity prices a firm could obtain in real markets, either one for short-term (liquid) equity or one for long-term (patient) equity. We say these are real markets because the empirical basis of the current MRP estimates

ARTC therefore believes that the ACCC/QCA WACC approach ignores the recognized relationship between MRP and the risk-free rate which, in the current market environment, creates estimates that are biased on the downside.

The underpinning methodology which IPART utilizes, however, adopts a balanced temporal approach and removes significant volatility in the WACC calculation. For instance, its balance between short- and long-term assessments of market-based parameters ensures short term market fluctuations are smoothed out. The IPART approach therefore delivers a consistency in the parameter logics and their interaction which is not present in all regulatory decisions. For instance, the use of a long-term geometric average for inflation is logical when compared to a risk-free rate assessed using a balance of on the day and historical forecasting term assessments. This avoids the inherent contradiction in using a long term inflation forecast on the assumption investors discriminate between short and long term expectations and require stable, long term forecasts whilst calculating a cost of equity based on the market risk free rate which imports both market volatility and the short term expectations excluded in the underlying forecasts. This inconsistency of market and long-term parameter forecasts can provide perverse outcomes such as negative real interests despite the real interest rate instruments trading at positive rates when the short- and long-term expectations are drastically out of alignment.

ARTC therefore recommends the adoption of the balanced approach of IPART in determining WACC parameters. This ensures the WACC calculation applied is not the outcome of a temporal lottery, but more reasonably reflects changes in the parameters over time and provides an outcome fair to all parties.

Asset Beta

Asset Beta is another significant driver for differences in regulatory return determinations. Given the use of comparators in defining the asset beta for railroads, ARTC does not believe that the regulatory process is capable of pricing specific risks to which ARTC is exposed given there is no comparable asset anywhere in the world on which such an assessment can be undertaken.

In respect of coal assets specifically, where societal risks associated with coal assets are increasing at an increasing rate as evidenced by the withdrawal of banks around the world from financing coal assets and shareholder activism forcing companies to adopt more sustainable positions and divest coal assets from their portfolios. The use of comparators from outside the sector will therefore naturally under value coal assets and fail to compensate coal network owners for the risks they accept. This creates tension between users and owners of infrastructure and reduces the acceptability of regulatory outcomes.

Total Return and negotiated outcomes

ARTC notes that there is a range of values placed by economic regulators on every parameter in the regulatory model; and the final choices are subjective and regulator specific.

Ultimately, ARTC considers that the total return is the relevant outcome, and this is the focus of the ARTC Board; not academic debates about the appropriate methodology for every parameter that feeds the calculation. Given the variances in regulatory methodologies for assessing even the market-based rates, appropriate assessment of the value of overall risk in a regulatory setting becomes very difficult.

ARTC further notes that the supply chain cost risk faced by its customers reflects a reality that they receive a price for their product set by a number of parameters; none of which include the Australian Commonwealth Government 10-year bond rate.

ARTC believes a mechanism which allows flexibility and promotes stability in determining access pricing is a preferable outcome for the entire industry; as cost increases imposed by a change in Australian financial market conditions would have the same impact on producer margin as the outcome of a negotiation process. A negotiation process, however, would afford producers the

opportunity to better manage this risk. Whilst the current market conditions create a User preference for a methodology weighted to short term bond market; a change in conditions would illicit a change in response. ARTC believes a negotiation-based methodology is independent of financial market conditions and therefore produces a less volatile outcome that benefits the entire industry chain.

Both the WA and SA rail regulatory regimes promote commercial arbitration to resolve access pricing disputes. This is consistent with recent developments in the gas transmission sector to impose more transparency and certainty on the access negotiation process. Further, in its submission to the Productivity Commission's 2019 Airport Review, the ACCC outlined a number of benefits from adopting Commercial Arbitration to resolve disputes, namely:

- It's a light handed and flexible regulatory solution and therefore minimizes the regulatory burden on the parties;
- It provides a credible threat against the misuse of market power; and
- It provides timely resolution of issues.

A key aspect of these benefits is the ability for parties to take a flexible approach to commercial outcomes which provides for less volatile outcomes thereby ensuring that a level of continuity of pricing on which long term investment and operational decisions are taken. ARTC agrees with these benefits and believes that this is an appropriate approach for resolving a commercial access pricing dispute between ARTC and a limited number of large, well-informed, well-resourced customers who are deeply experienced in cost risk management and negotiation across the supply chain

Negotiation therefore provides the opportunity to dampen the volatility of input costs which regulation does not and therefore should provide more efficient outcomes. ARTC accepts where users are unable to directly negotiate with infrastructure owners, a regulator is best positioned to determine appropriate pricing; however, where Users can negotiate for themselves, such outcomes will tend to be most efficient as it allows Users to manage their supply chain risks and costs most effectively.

Given regulator variability on WACC determinations, and the issues with developing accurate comparators, ARTC believes negotiated outcomes supported by commercial arbitration deliver the optimal outcomes for Users and Network owners alike and a nationally consistent rail access framework based on this should be a significant policy reform priority. In the meanwhile, adopting an approach to WACC determination that balances short and long term periods for parameter calculation would help reduce volatility and provide more confidence in the efficiency of the outcomes; especially as this would reduce variability between regulators.

If you have any questions in respect of this submission, please do not hesitate to contact me by either phone (08) 8217 4248 or email jteubner@artc.com.au to discuss further.

Yours sincerely

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