



Dr Malcolm Roberts  
Chairman  
Queensland Competition Authority  
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Brisbane QLD 4001

## RESPONSE TO REQUEST FOR COMMENTS ON ENERGY ECONOMICS FORECASTS

Dear Malcolm,

Aurizon Network welcomes the opportunity to clarify some aspects of its Draft Amending Access Undertaking on Electric Traction, submitted to the QCA on 24<sup>th</sup> April 2013 (**the Framework DAAU**). As you are aware, the purpose of the DAAU is to establish a framework for efficient access pricing for electric train services operating in the Blackwater system, whilst endeavouring to ensure continued revenue adequacy.

Given the significance of these issues, I am encouraged by the constructive and thoughtful engagement of the QCA with the Framework DAAU. Aurizon Network will continue to proactively support the QCA's process, recognising the continued significant effort that will be required on this issue in the context of the 2013 Draft Access Undertaking (**2013DAU**).

This submission outlines the application of volume forecasts within the Framework DAAU, in responding to the QCA's request for comments on a forecast produced by Energy Economics.<sup>1</sup>

### Background to the Framework DAAU

Sustainable electric tariff pricing in Blackwater was initially raised by Aurizon Network as a reform proposal in the 2008DAU. A further proposal for change was made in December 2011 (**the December DAAU**), before being withdrawn in January 2013. The Framework DAAU is the third regulatory proposal on this issue in recent times.

Given the substantial commitment of time and resources to date on the AT5 issue, the primary objective of the Framework DAAU was to establish economic principles that could then be applied in determining an efficient AT5 tariff in the 2013DAU. The Framework DAAU was also intended to provide a high-level framework to support revenue adequacy over a reasonable period of time, having regard to the QCA's stated objective of ensuring neutrality between both diesel and electric traction.

By providing the QCA with framework principles in Schedule K, it was intended that a Draft Decision (or other position paper) would provide the necessary public guidance for Aurizon Network to implement a detailed proposal in the context of the 2013DAU.

However, as the objective of the Framework DAAU is not to determine an AT5 rate, it is not entirely clear as to the intended function of the Energy Economics report. Whilst it is acknowledged that the Energy Economics volume forecasts could assist in understanding the likely revenue implications of the Framework DAAU once implemented, it is preferred that any such analysis not detract from an assessment of the principles-based, efficient pricing methodology itself.

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<sup>1</sup> Energy Economics, 2013, *Blackwater System Coal Railings Forecast*, 3<sup>rd</sup> July 2013, available at [www.qca.org.au](http://www.qca.org.au)

### The role of volume forecasts in setting the AT5 tariff

Generally speaking, a central consideration for setting efficient access tariffs is that the tariff for an individual train service should reflect the costs that the individual service imposes on the network, and should not be adversely impacted by economic choices made by other users of the network.

However, noting that the overhead power system capacity is not specific to an individual train service, setting AT5 with reference to forecast utilisation would, in part, maintain the existing methodology - a fully distributed cost methodology that has yielded high AT5 rates and created disincentives for complimentary investment in downstream markets.

In these circumstances, using volume forecasts to derive the AT5 tariff is not consistent with efficient pricing principles as:

- Capacity is not scalable with respect to an individual train services - with the result that users of the electric service, having made a complimentary investment in electric rollingstock, would in an environment of under-utilisation assume a level of financial responsibility for cost recovery that is largely determined by the preferences (including as regards traction choice, or overall coal production) of other users; and,
- The projected utilisation rates will change over time - thereby resulting in uncertain distributional effects, particularly given that the reduction in volumes in recent periods is not representative of the expected volumes when investment decisions, in both the declared service and the complimentary downstream service, were approved. Thus, setting a long-term price path on the basis of these forecasts will alter key assumptions about tariffs ex-post relative to those that would have been considered when investments were made. In effect, this would be to incorporate a level of market risk into the AT5 tariff that may act as a disincentive to electric use, given the available diesel alternative.

To remove these disincentives, the Framework DAAU seeks to identify alternatives to the use of forecasts in deriving an AT5 tariff. In particular, Aurizon Network has sought to avoid any distributional effects by transferring the ultimate responsibility for cost recovery from individual train services to the system, in order to ensure appropriate incentives for the efficient utilisation of the electric assets.

This has been achieved by utilising a reasonable proportion of contract volumes (85%) to calculate the long-term, efficient price path. This is a reasonable basis for assessing the expected utilisation rates which would have been assumed when contracting for access rights and expansion of the supply chain. As a consequence, utilisation of a reasonable proportion of contract volumes effectively represents the tariff that would prevail in an efficiently utilised system – with any consequent market risk as to the recovery of those common costs born by the system through a traction-neutral levy.

It is acknowledged that, regardless of the forecast volumes used, the long-term price path methodology will result in a reduced tariff, because any forecast will have higher volumes in later years offsetting earlier years. This will likely improve the situation over the status quo. However, it is still the case that setting AT5 on such a basis will result in electric users inefficiently bearing the cost of underutilisation relative to what would be the case if the asset was used at its efficient scale.

### Efficient pricing requires the UUP to manage variances between forecast and actual volumes

It is acknowledged that establishing the efficient AT5 price based on 85% of contract volumes would likely result in revenue shortfalls if the lower volumes assumed in the Energy Economics report were realised. This prospect must be weighed against the reality that prices based on those forecasts would be well in excess of what would prevail for a fully-utilised, scaled asset, and would thus discourage efficient use of the asset (making the problem worse).



The fundamental dilemma here is that the conventional mechanism for recovery of common costs in Australian regulatory frameworks is to account for variations between forecast demand and actual demand through revenue cap variations. However, these mechanisms operate effectively only in circumstances of captive and relatively inelastic demand, such that accumulated losses will not result in price outcomes which promote bypass. In other words, where there is an inability to bypass the regulated asset, revenue adequacy can typically be maintained by temporarily increasing the price to cover any shortfall.

Clearly, such a mechanism is unsuitable where utilisation rates differ substantially from those assumed when the investment decision was made, and bypass is economically available. In those circumstances, the requirement to cover accumulated losses through an access tariff may mean that any deferred revenue will not be recoverable in future periods due to continued reductions in demand.

Accordingly, the regulatory framework requires an appropriate mechanism which allows for the recovery of revenue shortfalls (or alternatively the attribution of any revenue gains) that:

- does not affect the efficient AT5 price path;
- provides appropriate price signals for the efficient investment and utilisation of rail infrastructure;
- does not distort competition in upstream or downstream markets; and
- to the extent possible, addresses the distributional impacts on all current and future users of the declared service.

It may be concluded that requiring current and future users of electric train services to assume sole financial responsibility for any resultant revenue shortfalls would not meet these thresholds. It is for this reason that the Framework DAAU proposes the Under Utilisation Payment (UUP), as a traction-neutral levy on the system to recover any accumulated shortfall without unduly imposing costs on either electric or diesel users.

#### Long term volume forecasts are highly uncertain

Aurizon Network notes that forecasting economic variables over long periods of time is highly circumspect and subject to a high degree of error. In this respect medium to long term economic forecasts will conventionally be presented (though have not been by Energy Economics) as either:

- a range of potential outcomes which typically broadens over time as the degree of uncertainty increases: or
- a projected point estimate but one which has been derived from survey or data or panel data from multiple forecasters (the median of the survey).

It is worth highlighting that, even over a single year, volume forecasts for the CQCN are frequently inaccurate by a considerable margin. For example, the following table shows the volume forecasts proposed by both Aurizon Network and Energy Economics for the Blackwater and Goonyella systems in the 2012-13 annual tariff reset. Needless to say, the magnitude of the forecasting error could be expected to be substantially greater for horizons longer than 1 year.<sup>2</sup>

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<sup>2</sup> The low reliance that can be placed on these long-term forecasts is reflected in Energy Economics' disclaimer on page 31 which states:

*This publication may contain forward looking estimates, forecasts or plans which are subject to changing economic conditions, company plans, operating conditions, political situations or other variables, consequently neither Energy Economics Pty Ltd nor its employees nor contractors can accept any responsibility for the accuracy or completeness of any such forward looking statements.*

**Table 1: 2012-13 Net Tonne Forecasts versus Actual**

System	Actual Tonnes Railed	Net Aurizon Network Forecast	Variance	Energy Economics Forecast	Variance
Blackwater	54,922,714	57,700,000	4.8%	59,900,000	8.31%
Goonyella	97,584,171	99,000,000	1.4%	93,000,000	4.93%

Aurizon Network considers that given the uncertainty in economic conditions, the 85% of contract is as reasonably likely as the Energy Economic forecasts, particularly from FY16 onwards, and that contracted rail and port capacity remains a robust guide for medium to long volume forecasts. It is noted that Queensland coal producers will continue to be incentivised to manage average infrastructure costs by fully utilising port and rail capacity.

#### Progressing the DAAU

Aurizon Network continues to believe that the QCA's resolution of this long-running issue is required to provide the regulatory certainty necessary for investment in regulated assets.

However, Aurizon Network acknowledges the Framework DAAU is not in a form which would allow the QCA to make a straightforward decision to approve it. Nonetheless, as noted at the commencement of this letter, the primary objective of the Framework DAAU is only to establish the concepts and principles necessary for Aurizon Network to submit efficient AT5 price and revenue management arrangements to the QCA.

Aurizon Network is currently considering stakeholder feedback on the Framework DAAU. In that light, Aurizon Network is currently working on the additional detail that would be necessary for the lodgement of a ruling under s.150 of the QCA Act, which would apply for multiple regulatory periods and be reflected in the 2013DAU.

However, it is not in the interests of any stakeholder that Aurizon Network continue to initiate reform proposals without clarity on how the QCA intends to resolve the issue. For this reason, it is essential for the development of any ruling application that the industry obtains guidance from the QCA on the general principles which it will accept. A Draft Decision or position paper on the Framework DAAU will provide an effective means to convey that guidance, and Aurizon Network will continue to support the QCA in its ongoing investigation to help secure that outcome.

The issue of volume forecasts, while important to estimating the revenue impacts from underutilisation, is a second order consideration relative to resolving the distribution of those impacts consistent with an efficient pricing constraint on AT5. Aurizon Network remains committed to working with the QCA to advance an acceptable resolution to pricing electric train services.

Should you have any queries in relation to this correspondence please discuss with Luke Kirke who can be contacted by email at [luke.kirke@aurizon.com.au](mailto:luke.kirke@aurizon.com.au) or by telephone on (07) 3019 8448.

Yours faithfully,

  
Michael Carter  
Chief Executive Officer  
Aurizon Network Pty Ltd

19 August 2013