



Department of Treasury and Finance
Government of Western Australia

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Dear Mr Rowe

**RESPONSE TO THE DRAFT REPORT ON RECYCLED WATER PRICING IN
WESTERN AUSTRALIA**

Thank you for the opportunity to provide comment on the Economic Regulation Authority's (ERA's) Draft Report on its Inquiry into Pricing of Recycled Water in Western Australia.

The Department of Treasury and Finance (DTF) offers in-principle agreement with the ERA's draft recommendations. However, a more detailed response to a number of the ERA's recommendations is included in the attached document.

Furthermore, the views attached are solely those of the DTF.

If you wish to discuss any of these matters further, please contact David Murphy on 9278 6707, or by email at david.murphy@dtf.wa.gov.au.

Yours sincerely

David Morrison
A/ EXECUTIVE DIRECTOR
ECONOMIC

14 January 2008

DEPARTMENT OF TREASURY AND FINANCE'S RESPONSE TO THE DRAFT RECOMMENDATIONS**RECOMMENDATION 1*****Pricing guidelines***

With regard to the three recommended components of pricing for recycled water from wastewater treatment plants, it is suggested that the ERA provide more detail around how each of these components is to be calculated. This would be particularly useful for smaller, potential recycled water service providers, such as local councils and private developers.

As indicated in the DTF's response to the Issues Paper, the pricing of recycled water (and therefore the calculation of the individual components of the price) should be consistent with the pricing of potable water. The 1994 COAG Water Reform Agreement and any pricing principles that may arise from the National Water Initiative would provide a sufficient starting point for the development of more detailed 'guidelines' for all service providers of recycled water.

Treatment of shared costs and benefits

There is a broader question of the treatment of shared costs and the need to recognise that traditionally, a wastewater service involves collection, transport, treatment and disposal. Furthermore, the charging regime is centred around recovering the costs of these services from wastewater customers. With the advent of recycling, the treatment and disposal aspects of traditional wastewater services may no longer be the final stage of the process, but rather act as a 'pre-treatment' for the recycling process.

Consequently, the point at which the process ceases to be a wastewater service and becomes a recycling service is of paramount importance to the development of an appropriate cost recovery regime. It must be recognised that without the wastewater treatment plant, effluent could not be treated directly by the recycling plant, and therefore additional treatment costs would be incurred.

It is understood that the ERA's preferred approach is to charge recycling customers only the direct costs, and continue to have the wastewater customers bear the full cost of the treatment and disposal. This is comparable to the situation where no recycling takes place. While this approach is one way of allocating the economic surplus, there is also a case for some surplus to be returned to the operator of the treatment plant, and possibly to customers of the wastewater service.

There may be good policy reasons for the Government to charge recycling customers part of the costs of the 'pre-treatment'. For example, if the scheme is in a country area and the costs of the wastewater service are subsidised by a community service obligation payment (CSO). If the recycling customer were to contribute to the cost of the 'pre-treatment', this would reduce the size of the CSO. In effect, the payment of the pre-treatment costs could be shared between beneficiaries, and benefits not all go to the recycling customer or the WC.

In addressing this issue more broadly, the DTF believes that it is important that the ERA's final recommendation balances the interests of both the service providers and those wishing to purchase the treated waste. Failure to recognise that both parties require a financial incentive to participate in the transaction will likely result in a sub-optimal outcome. If the treatment plant operator has no financial incentive for transacting with a recycling plant operator, and using traditional disposal methods, the risk involved with the newer recycling technology may become a deciding factor.

Consequently, a pricing mechanism, similar to those employed in third party access regimes may be an appropriate solution. This approach would allocate a share of the costs of the treatment plant (based on proportionality) to the recycling plant operator, and consequently reduce the negative adjustment charge under the retail-minus methodology.

Lastly, the ERA is encouraged to undertake additional discussion of the shortcomings of the current process, where parties undertake commercial negotiations with the Water Corporation, but with no adequate arbitration mechanism (such as those which exist in access regimes more generally), should negotiations break down. It is believed that a wider discussion of the benefits of such a mechanism to potential investors in recycling options would be of benefit to the Final Report.

Determination of scarcity values

In determining the scarcity value of water, the ERA has suggested that "if there is no scarcity, then the scarcity component of the price should be zero"¹. However, this approach fails to recognise the value to the treatment plant operator of waiting for scarcity to arise through competition for the resource before agreeing to a long-term contract, or in more general terms, a means through which the efficient allocation of resources can be achieved over time.

Consequently, it is suggested that the expected net present value of the scarcity component will not be zero, given the probability that scarcity will arise within the contractual period. This implies that a non-zero scarcity value would be appropriate, as a function of the probability and volume of excess demand.

¹ Economic Regulation Authority, (2008) Inquiry into Pricing of Recycled Water in Western Australia: Draft Report, p.23

The justification for the inclusion of such a mechanism is the argument (similar to those raised in regards to Recommendation 10) that high sunk costs may prevent the development of a secondary market. It is therefore necessary for a price mechanism to be developed which will ensure a more efficient allocation within the market. This problem may be solved via shorter term contracts, or with clauses allowing the treatment plant to revisit the scarcity component under certain circumstances.

It would be appropriate for this mechanism to be administered directly by the ERA.

In making this suggestion, it is acknowledged that any possible solution to this problem may introduce secondary, unintended consequences, which would ameliorate the potential gains. The optimal solution which both the DTF and ERA are intending to approximate may always be elusive under a regulated system, and hence any further complexity both unnecessary and counterproductive.

RECOMMENDATION 7

While it is recognised that mandatory recycling targets will provide an incentive for service providers to invest in recycling infrastructure, it is important to acknowledge the potential for such government intervention to result in a misallocation of resources.

Firstly, it is agreed that in the absence of a competitive market for the provision of the service, and furthermore the downside risk on demand that new suppliers may face, recycling targets will encourage investment by artificially stimulating demand. Furthermore, it is agreed that "targets need to be complemented by policy settings that support the most cost effective water supply options"².

However, wastewater recycling will already take place if it is priced competitively, with or without the imposition of mandatory targets. Furthermore, the ERA has failed to present evidence to suggest that a significant market failure presently exists which would need to be 'corrected' via the introduction of mandatory recycling targets.

Wastewater recycling will take place if and when it is efficient to do so. Consequently (in the absence of market failure), the only difference mandatory targets will make is to sanction inefficient investment.

In the final report it is recommend that the ERA:

- justify the need for mandatory targets in greater detail, and explain how they can be consistent with the ERA's goal of economic efficiency;

² Ibid, p.45

- explain whether there is a need for government to address a competitive disadvantage that recycling facilities face in terms of the perceived substitutability of their product vis-à-vis non-recycled water, the monetary value of this competitive disadvantage, and whether this market failure could be better addressed via means which result in less distortion to the market (for example, via advertising or awareness campaigns). Put simply, the question is if the ERA believes that market failure exists, why measures are not put in place to directly address the source of the market failure, rather than through less efficient means;
- note the DTF's previous comments regarding the flexibility of targets³. Specifically, the ERA should strongly reaffirm that targets should not artificially stimulate demand for recycled water in any individual market such that price exceeds that of the available substitutes; and
- if the ERA is to advocate for mandatory recycling targets, it is only supported as a temporary measure. Such a goal could be met through the inclusion of a sunset clause or review mechanism for the recycling targets. This would assist in reducing private sector uncertainty in regards to changes in government policy at some time in the future, such as when the competitive disadvantage recycling sources face has been addressed to a fair and reasonable degree. Furthermore, it would be necessary to require a rigorous cost benefit analysis to be undertaken to assess the effectiveness of the targets within the aforementioned review.

RECOMMENDATION 10

While a neutral auctioning mechanism for wastewater would achieve a degree of allocative efficiency, there are some criticisms of this approach. Specifically, it has been suggested that a neutral auctioning mechanism may result in an inefficient allocation because:

- the high sunk costs associated with many production processes, and the low marginal value of water in these processes will prevent an active secondary market for water; and
- not all potential users of the resource will be present at the time of the auction.

In responding to this issue, it is suggested that the ERA could undertake an examination of:

- the practicality and benefits of an alternative method for the assignment of property rights in the auction, wherein the rights are sold subject to the obligation to renegotiate prices should a higher bidder enter at a later time;
- the applicability of a tender process, as opposed to an auction; and

³ Department of Treasury and Finance, (2008), Response to the Economic Regulation Authority Issues Paper, p.6

- whether the benefits of the auction mechanism, in regards to allocative efficiency, on balance, will outweigh the efficiency gain that could be achieved through an alternate mechanism (such as intertemporal reassignment or reservation for public supply).

However, the DTF would take this opportunity to reassert a preference for a neutral auction mechanism without public reservation in the first instance, subject to revision should the ERA develop a more effective process.