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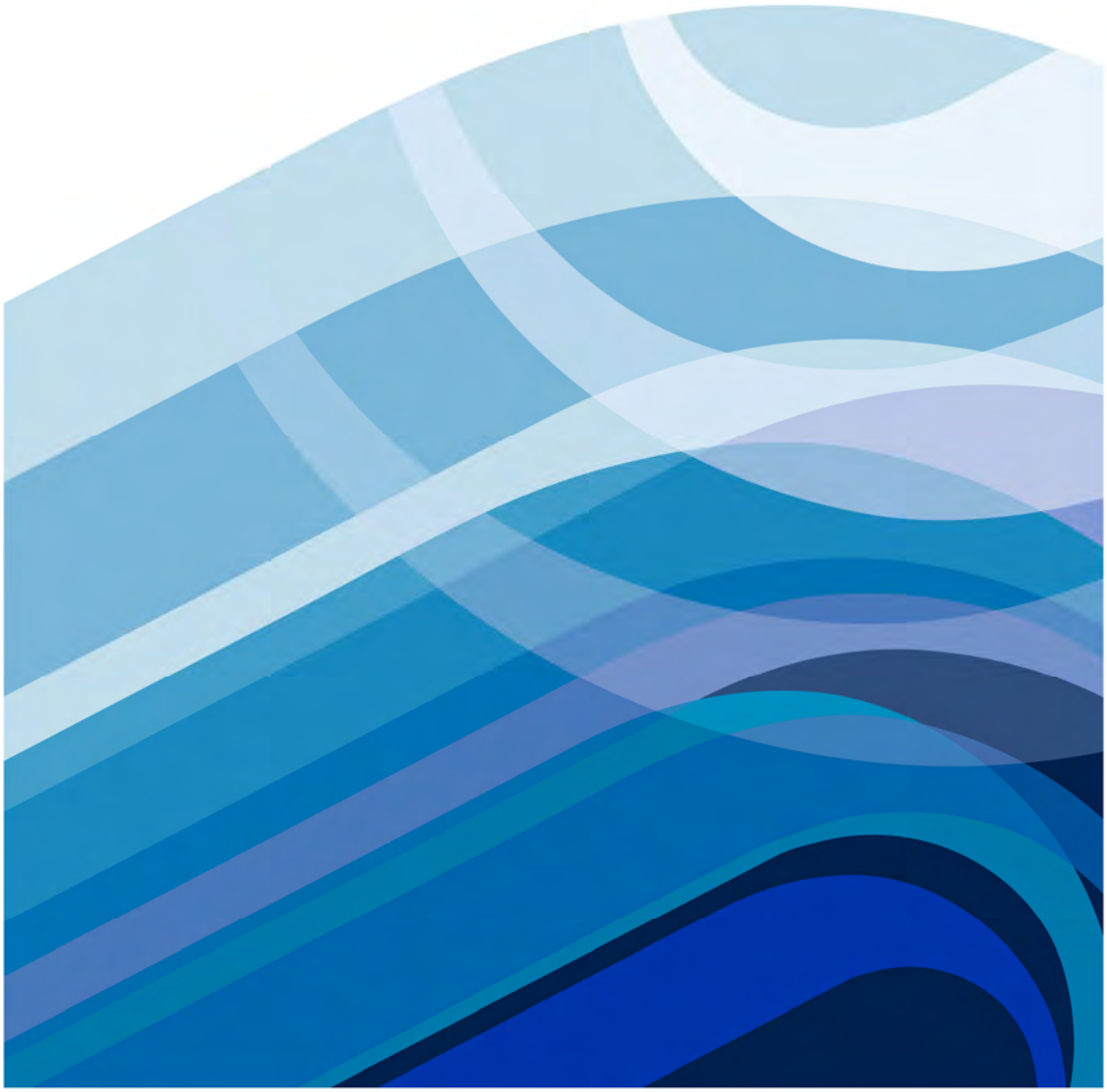
Submission to the Economic Regulation Authority's Draft Report

Inquiry into Tariffs of the Water Corporation, AQWEST and Busselton Water

Part A – Overview

22 May 2009



Introduction

The Water Corporation is generally supportive of the current economic regulation framework that has been developed by the ERA to regulate water utilities in Western Australia, and considers that it is soundly based to allow an appropriate rate of return for an efficient service provider.

As demonstrated by the number of issues covered in the ERA's Draft Report, there is more to setting prices than determining the appropriate revenue target and price path for a water utility. The Corporation believes that the length and complexity of the report means that it will not be read and understood by many people that do not have a direct, professional interest in setting prices for water services.

While there is a need to deal with pricing at the detailed level, there are some higher level issues that guide the underlying detail, and the Draft Report would have been enhanced by a clear statement of these issues, the options and the position the ERA has taken in drafting its recommendations. This would provide greater transparency of the drivers, and the opportunity for non-professionals to contribute to debate.

The Water Corporation has split our response to the Draft Report into this overview (Part A), and a second, more detailed submission to deal with the technical issues (Part B).

The key issues can be grouped under the following headings:

- **Developing efficient price signals** – only some prices encourage customers to make efficient decisions on their consumption. Other prices can be set based on other objectives such as equity and billing efficiency;

- **Setting equitable tariffs** – prices determine how costs are shared between various customers. When sending efficient price signals is not an issue, the basis on which costs have been allocated should be made explicit i.e. based on uniform prices, ability to pay or cost reflectivity;

- **Cost recovery** – determining the appropriate revenue target includes:

  - ensuring a utility's expenditure is efficient and effective – by ensuring the limited resources available to a utility are appropriately allocated to providing the various services that customers, Government and regulators require, and that these services are provided efficiently; and

  - ensuring the long-term financial viability of an efficient service provider, including an appropriate rate of return on their investment.

Developing Efficient Price Signals

The key price signal that has the potential to influence customer behaviour is the volume charge for water. The target volume charges proposed by the ERA for metropolitan business and residential customers are similar to those proposed by the Water Corporation (see Table 2 below). The proposed prices represent significant increases that should encourage more efficient water use, and are generally supported.

However, the ERA has justified their recommended charges based on unconventional modelling. In particular, the Corporation does not support the use of the prototype Short-Run Market Clearing Pricing (SRMCP) model, either from a theoretical or a practical perspective. While the model produces similar prices at the moment, it is unlikely to result in acceptable tariffs in subsequent price determinations.

Table 1 – Current Metropolitan Volume Charges

Usage (kL) per year	2009/10 Charge
Residential	
First 150kL	72.6 c/kL
150 – 350kL	88.0 c/kL
350 – 550kL	102.0 c/kL
550 – 950kL	153.7 c/kL
Over 950kL	177.9 c/kL
Business	
First 600kL	117.1 c/kL
600 – 1,100,000kL	122.0 c/kL
Over 1,100,000kL	120.8 c/kL

Table 2 – Proposed Metropolitan Volume Charges

Usage (kL) per year	ERA Draft Report		Water Corporation	
	Charge	Methodology	Charge	Methodology
Residential				
First 150kL	113 c/kL	LRMC Model – lower end of calculation	136 c/kL	LRMC Model – lower end of calculation
150 - 500kL	**173 c/kL**	**SRMCP Model**	**180 c/kL**	**LRMC Model – upper end of calculation**
Over 500kL	257 c/kL	LRMC Model – upper end of calculation & externality premium	200 c/kL	Full cost of the SSDP with energy purchased from renewable energy generator
Business				
All consumption	**173 c/kL**	**SRMCP Model**	**180 c/kL**	**LRMC Model – upper end of calculation**

LRMC = Long Run Marginal Cost

Tariff Thresholds

It should be noted that the Corporation originally proposed a tariff structure with a first threshold of 0 to 300kL, which is close to the average residential consumption. The ERA has recommended a threshold of 0 to 150kL based on essential water use. The Corporation is willing to support the 0 to 150kL threshold as proposed by the ERA, acknowledging that while it will result in a higher usage charge between 150kL and 300kL, the higher price will:

- encourage more efficient water consumption; and

- not result in more revenue for the Corporation, as the additional revenue from increases in volume charges will be offset by reductions to the water service charge. Consumers using small volumes will therefore pay less under the proposed tariff structure, while large consumers will pay more.

Long Term vs. Short Term Price Signals

The volumetric charge for metropolitan business and for residential consumption between 150kL and 500kL are the two most important volumetric charges in terms of sending price signals to consumers. The ERA has proposed a charge of $1.73/kL based on their prototype SRMCP model. The use of this model is not supported. The underlying economic justification is poor, and the results are unstable and highly dependent on assumptions (such as the price elasticity of demand for water) which are difficult to estimate with any firm degree of accuracy.

It is the view of the Corporation that a price that reflects the long-term cost of augmenting supply is a more important signal than one that indicates the short-term storage in dams. While a short-term signal may be appropriate to encourage some behavioural change, it is longer-term decisions on investing in efficient industrial processes, garden layout and water efficient appliances that will result in the overall efficient use of water resources. When short-term behavioural decisions need to be managed for supply security, these are managed with more certainty, efficiency and equity using restrictions.

From a practical perspective, the ERA's proposed SRMCP model is not well specified, calibrated or tested, and provides highly unstable results under a wide range of foreseeable circumstances. Without a strong theoretical driver, adopting a methodology that has a high probability of being abandoned at the next price review (due to the potential for unreasonably high or low prices) is not good regulatory practice.

The Corporation's proposed prices are based on the cost of augmenting scheme capacity. $1.36/kL to $1.80/kL is an estimate of the Long Run Marginal Cost (LRMC) of augmenting capacity for a range of realistic climate and demand scenarios.

LRMC has a sound economic base, is far more stable than a short-term model, and has previously been endorsed by the ERA and other economic regulators. The upper end of the LRMC model (based on a likely scenario) gives a similar price to that which the

ERA wants to adopt for this inquiry and provides a sound justification for this price. This would provide regulatory continuity from the ERA's 2005 inquiry, which recommended adoption of LRMC.

Price for High Consumption

The ERA's proposed $2.57/kL price for metropolitan residential consumption above 500kL includes an "externality value" (i.e. non-financial environmental and social impacts) associated with drawing water from the Gnangara Mound. This is an arbitrary value, and is not based on accepted assumptions about the sustainable draw from the mound.

If a realistic externality value exists, the ERA should also make it clear why it is appropriate to pass it on only to a small number of high volume residential consumers, and why it should not be equally applied to all other water users on the Gnangara Mound.

The Corporation's proposed price of $2.00/kL for high consumption is based on the cost of augmenting the Southern Seawater Desalination Plant (SSDP) with energy purchased from a renewable energy generator. This would result in a sound, stable, long-term basis for setting a volume charge to encourage efficient discretionary consumption.

Setting Equitable Tariffs

There is an underlying assumption carried through the recommendations of the Draft Report that equity is achieved with cost reflective prices. The Corporation is aware that many people in the community have alternative views on equity, including support for uniform charges and charges based on ability to pay.

If evidence of prevailing public opinion or alternative reasons for adopting cost reflective tariffs (e.g. effective price signals, administrative simplicity) is not provided, the ERA should clearly identify when they have made a value judgment, and outline other value based options available. This would improve the perception of the impartiality of the advice. This would also provide the Government with the option to adopt different policy positions without being seen to be simply rejecting the ERA's advice.

Examples include: the ERA's suggestion that the uniform pricing policy should be amended to be a tariff cap policy, that the uniform tariff threshold should be reduced from 300kL to 150kL per annum, and that residential sewerage charges be based on winter water usage as a proxy for discharge to the sewer.

Uniform Pricing Policy amended to Tariff Cap Policy

A tariff cap policy reflects a value judgement that the uniform pricing policy is in place to protect customers from the adverse impact of cost reflective prices. This is different

from the view that it is equitable for all customers to pay the same amount for a service, regardless of the cost.

The outcome of the proposed tariff cap policy would be that a small number of country customers could pay very low volumetric charges (30c/kL). The lower prices would increase the cost to the taxpayer of supporting the uniform pricing policy. Additionally, many in the community would challenge whether higher consumption should be encouraged just because the current cost of the scheme is low.

Reducing the Uniform Tariff Threshold

Reducing the uniform tariff threshold from 300kL embodies an assumption that it is equitable to protect customers from cost reflective prices for essential water use, rather than it being equitable for all customers to pay the same for average water use.

Is the policy about providing the same level of lifestyle and amenity for country customers, or just ensuring an essential volume of water is available at an affordable price?

Residential Sewerage Charges based on Winter Water Consumption

Basing residential sewerage charges on winter water consumption embodies an assumption that sewerage costs should be distributed between customers on the basis of the volumetric use they make of the scheme. The ERA's proposal is that this method of charging should replace valuation based charges, which embody the idea that cost should be distributed based on ability to pay.

It is widely acknowledged that valuation based charges are poorly correlated to ability to pay, as many high income households occupy low value properties. A similar type of criticism could also be made of a charge based on winter water consumption, as this will only be loosely correlated to the actual annual discharge to the sewer.

There are a number of practical problems with this proposal, such as how to adjust for changes in occupants, how to deal with communities that don't have a defined winter period, how to deal with tourist towns where much of the population is not in residence in winter, and how to charge customers with internally plumbed rainwater tanks.

Without evidence that internal water use will be influenced by the charging method, the proposal is simply an administratively complex, inefficient, imperfect method to distribute costs between customers on the basis of their system use.

The Corporation has proposed a fixed service charge, which would result in a uniform distribution of costs between customers. The advantage of this charge is that it is administratively simple, cost efficient and would generally be perceived as fair by most customers. Importantly, it will not be perceived as grossly unfair by some customers (which is currently a problem with valuation based charges) as would be the case with a charge based on winter water consumption.

Additionally, the issue of transition to the new charge should be considered. While not entirely accurate, the move away from valuation based charges will be perceived by the public as an increase in charges for the poor and a reduction for the rich. If this change is coupled with a volumetric charge, some customers will be moving from below average GRV based charges to above average volumetric based charges, increasing the size of the transition. This would include large, low income families currently occupying low value houses.

Cost Recovery

While the Corporation is generally happy with the framework for modelling the revenue requirement, and is willing to adopt a fixed price path for a 3 year regulatory period, in our view, the ERA's recommendations as to who bears the risk and benefit of changes in demand and costs during the regulatory period is not in the best interest of customers.

Additionally, budget changes do occur. Consideration should be given to the magnitude of changes in the Corporation's costs that might justify a review of the price path. For example, the Corporation's capital budget was cut by $560 million in the 2009/10 State Budget. The resulting lower prices will be included in the ERA's final recommendations for this inquiry as it just happened to occur at the time of the price review. If this had occurred next year, the associated price reduction would not occur until 2012/13.

Method for Calculating Revenue Requirement

Recommendation 22 states:

> *The Water Corporation, Aqwest and Busselton Water be able to retain, for the length of the regulatory period, any operating expenditure savings that are greater than the savings required to achieve the operating expenditure efficiency target.*

This suggests that the Corporation should retain any above-target operating savings made during the regulatory period. In reality, the Corporation manages to a constrained operating budget and any above target efficiency gains are spent on improving levels of customer service, or investing in management initiatives that improve the long-term efficiency and effectiveness of the business. Financial performance and efficiency incentives will not be altered due to this recommendation.

Recommendation 23 states:

> *For the length of the three-year regulatory period, the Water Corporation, Aqwest and Busselton Water should not be compensated whenever actual demand varies from forecast demand. Instead, the service providers should bear this demand risk.*

This suggests that water utilities should not be compensated when demand varies from forecast. It should be noted that demand variations can lead to both gains and losses for a utility. This recommendation is not in customers' interests as it would encourage conservative forecasts and they would probably end up paying more on average. Depending on the circumstances, it could also provide disincentives for efficient demand management programs.

Technically, additional risk should require a higher rate of return for the utility as compensation, again resulting in higher prices for customers.

Finally, adoption of this recommendation would result in additional costs for greater, currently unnecessary, regulation to provide oversight to protect customers from the consequences of this recommendation. A more efficient approach is to allow an adjustment, either upwards or downwards, in the next regulatory period to compensate for all items where there is unmanageable risk. This negates any potential for regulatory gaming at the customers' expense, and the need for compensating regulatory oversight.

Recommendation 24 states:

> *Any significant capital expenditure proposal that exceeds a certain threshold amount be subject to a capital expenditure efficiency test, conducted by the Authority under its inquiry function (submissions are invited on the appropriate level of the threshold).*

This suggests that the ERA should make an assessment of significant capital projects. This recommendation envisages that individual projects can be assessed separately from their context as being part of the Corporation's overall constrained capital program and demonstrates a misunderstanding of how the financial constraints on the Corporation must be managed.

Regulatory oversight as proposed by the ERA is only required if there is an incentive for a monopoly service provider to "gold-plate" or over invest to receive a guaranteed regulated return on their larger investment.

With financial constraints in place, projects that can be justified on a stand-alone basis need to be prioritised and some are deferred to meet budget targets. Projects are prioritised against multiple objectives to achieve the best outcome with the available funding. There is no incentive for gold plating or early delivery as this would reduce the funding available for other necessary projects and would not result in higher returns.

For example, the Corporation's capital budget was reduced by $560 million in the latest State Budget, requiring many projects to be deferred. This was undertaken using the Corporation's risk based prioritisation process.

The Board of the Water Corporation has in place sophisticated and well resourced processes to ensure optimised planning, option selection, capital prioritisation, business case development, and procurement and delivery strategies. The outcomes from these processes will be far more robust than any the ERA could put in place to make similar judgements.

The quality of these processes is demonstrated in the review undertaken on the ERA's behalf by Halcrow Pacific for this inquiry. On page 42 of their report, Halcrow's key findings are:

"After reviewing the Corporation's processes and documentation for developing planning proposals, we are satisfied that the Corporation has a clear, documented, robust and rigorous approach to project planning. It is our view that the planning process outlines clear responsibilities of key personnel, and adequately covers all areas of planning that one would view as critical.

We are satisfied that the Corporation has developed a robust and rigorous capital prioritisation process which is underpinned by the Corporation's three CIPs. We note that a risk-based methodology is at the heart of the Corporation's project prioritisation process, with the four main risk categories or business drivers used for assessing and reporting capital investment programs. We note that the capital prioritising process is supported by clear and detailed Asset Acquisition Guidelines.

In our opinion, the Business Case Guidelines for Capital Investment Projects developed by the Corporation provide clear guidance to Planning Managers and other relevant staff when undertaken a planning business case. Should the Business Case Guidelines be prudently followed, the guiding principles be adhered to and adequate training and mentoring be available to the individual undertaking the business case, we believe that a Planning Business Case developed by the Corporation is likely to result in a recommended option that is both robust and appropriate.

Based on our review, we consider that the procurement and delivery strategies currently adopted by the Corporation are innovative and encourage competitive delivery of the capital investment program.

We consider that the use of alliance contracts will facilitate delivery of the capital program in an efficient and effective manner, subject to pain-share and gain-share arrangements, and market testing, undertaken every three to five years, to ensure that the alliance and long term partnering arrangements are still competitive.

By regularly reviewing the split of work delivered by 'traditional' and 'alternative' delivery strategies, the Corporation is well placed to optimise delivery of its capital investment program.

Based on our review of sample documentation, we are satisfied that the Corporation has in place robust procedures for the delivery of its capital investment projects.

The Corporation's project close out and post implementation reviews provide a mechanism by which lessons learned during project development

implementation phases may be used to inform the capital investment planning process.

Based on the above, we believe that the Corporation will be in a position to continue to improve its performance in relation to delivery of its capital investment program over the coming regulatory period."

The Corporation has worked hard on its own capital planning and delivery processes to take out unnecessary steps that can delay projects and add to costs. Including the ERA's proposed evaluation would be a retrograde step.

Given the robust processes that are currently in place to achieve the same objective, the Corporation would expect that if the ERA had to subject their proposal to a Regulatory Impact Assessment it would fail to prove that the benefits exceeded the costs.

Rate of Return

Recommendation 33 states:

For Water Corporation, the rate of return (pre-tax real) be set at 5.41 per cent.

The ERA's recommended rate of 5.41% is a reduction to the current rate of 5.63% set in November 2005.

Approximately half the Corporation's revenue target is made up of the return on investment. Adopting Recommendation 33 represents a 2% reduction in the Corporation's revenue target (approximately $20 million annually).

The rate of return is based on the ERA's assessment of the Corporation's Weighted Average Cost of Capital (WACC). The proposed reduction comes at a time when the cost of capital throughout the developed world has increased dramatically as markets have factored in the weaknesses in their previous assessment of risk.

The Corporation believes the WACC proposed by the ERA has arisen from the application of a conservative assumption for each element of the calculation, which when combined, creates an unrealistic outcome.

Demand Management

Recommendation 39 states:

Demand restrictions be reconsidered once the Southern Seawater Desalination Plant is operational.

As detailed in the Corporation's response to the Issues Paper, the completion of the SSDP is not the only requirement for revising watering rosters. The current sprinkler roster should not be relaxed unless and until:

- the current stress on groundwater resources has been relieved, with the overdraw in the last few years paid back to the environment;

- the sources (including dam levels) are sufficient to accommodate the additional demand without compromising supply security;

- water efficient behaviours have been instilled in the community as a matter of habit;

- there is community support to modify the sprinkler roster.

Furthermore there are economic and environmental arguments for continuing to apply the sprinkler roster even if the State's water supplies are in a position to accommodate increased demand in the short-term.

The demand management target detailed in the Corporation's Water Forever Directions Paper aims at reducing per capita consumption by a further 15% by 2030. Demand reductions of this magnitude would save an estimated $1.1bn in the cost of future source development.

Efficient demand management is about changing long-term water use requirements, not only short-term behaviour, and this needs to be consistently applied over the whole source development cycle (i.e. initial surplus followed by supply/demand balance then capacity short-fall).

Conclusion

The Water Corporation requests the ERA take the following points into consideration when drafting their Final Report:

- Ensure that there is robust economic justification and modelling supporting the proposed volumetric charges, with some confidence that they will continue to be applied in coming price determinations;

- Where service demand is not price sensitive, ensure that the price recommendations are perceived to be fair, both in totality and for individual customers. In the Corporation's experience, simple, easy to understand tariffs are generally more acceptable, as well as being less costly to administer;

- Understand the impact of financial constraints on the Corporation's capital and operating budgets, and how the processes to ensure optimised planning, option selection, capital prioritisation, business case development, and procurement and delivery strategies are already delivering the objective behind a capital efficiency test;

- Take a long-term view of the benefits of demand management and the requirement to gradually build water efficiency into our lifestyles.