

Submission on the preliminary findings and recommendations of the
“Inquiry on Urban Water and Wastewater Pricing”
of the Economic Regulation Authority

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Credentials

- Professor of Agricultural and Resource Economics at the University of Western Australia
- Director on the Board of Land and Water Australia
- Member of a number of natural resource committees for government (e.g., R&D Technical Committee for the Natural Resource Management Council; Technical Committee, Water Resource Catchments, Dept Environment; Albany Waterways Management Authority).
- Member, Ministerial Task Force on State Salinity Strategy, WA, 2001.
- President Australian Agricultural and Resource Economics Society, 2000.

Comments

Western Australia currently has the most inefficient and counterproductive system of domestic water pricing in Australia. It is in need of urgent and radical overhaul. Given our chronic concerns with water in the south-west, such reform is long overdue.

In general I support the broad directions of change proposed in the report. My main point of difference with the report is that the proposed changes do not go far enough.

The report acknowledges, but underemphasises, the role of pricing to encourage water conservation. Higher pricing makes it more likely for people to reduce their demand for water because:

- they are directly encouraged to use less water (e.g. shorter showers, less watering of gardens)
- water saving technologies become more financially attractive.

In considering this issue, it is important to recognise that incentives to conserve water are driven by the price of the last kilolitre (the “marginal cost”), not fixed costs that are unaffected by consumption. Our current pricing schedule has around half of the total cost as a fixed cost, and a relatively low marginal cost, and so is designed to encourage wasteful and low-value consumption. WA has the largest proportion of fixed costs of any state, which is highly ill-advised.

The report recommends that the fixed price component should be reduced from \$149 to \$35. It proposes that it should not be reduced so low that low-usage customers are subsidised by high usage customers.

However, the reviewers have misunderstood the efficiency issues here. From an efficiency perspective, it would be far better to reduce the fixed charge to zero, and increase the variable charge accordingly to achieve the same revenue targets (e.g. perhaps to \$1.15 per KL, reflecting the estimated marginal cost of water from the proposed desal plant). Loss of efficiency from this change would occur only if additional low-volume consumers entered the market *as a result of the lower fixed charge*. It is hard to see how this would happen to any great extent in the domestic water scheme. Almost all potential consumers are already connected to the system. For existing low-volume water users, they would receive some financial benefit from the setting fixed costs to zero, but would not change their status as low water consumers, so the efficiency of water allocation would not be altered. Overall, the proposal to retain a \$35 fixed charge would not be economically efficient and would run counter to the goal of enhancing water conservation.

From the point of view of water conservation, a price higher than the proposed \$1.00 per KL would be better. Recognising the political preference to minimise increases in overall costs to consumers, setting the fixed charge to zero would enable a higher charge without an increase in overall revenue. A price above \$1.00 KL would be preferable to account (to some extent) for the unpriced external costs of water consumption, and to provide signals back to water suppliers about the marginal value of water. This latter point is important given the interest in investing in further infrastructure (e.g. the desal plant; potentially the Kimberly channel). If there is sufficient excess demand for water at a price that reflects the cost of supplying water from the desal plant, then that indicates that the benefits from providing the plant would exceed the costs. Currently, because volumetric water prices are artificially low, we have little idea about whether the value of water to consumers is sufficient to justify the investment in the desal plant, or any other infrastructure project.

For this reason, I strongly agree with the recommendation that price reform should occur *before* investments in expensive infrastructure are committed.

I note the comment in the report that demand for water is relatively inelastic. However, this should not be overstated. We are talking about large percentage changes in volumetric prices, so that there will be important savings in consumption as a result. For example, for many consumers a price of \$1/KL would be approximately a 50% increase, while \$1.15/KL would be a 75% increase. If the long run elasticity of demand is -0.5 (which seems realistic), these price rises would prompt reductions in consumption of around 25% or 38%.

In addition, as noted above, the higher prices will provide signals to water suppliers and resource managers about the marginal value of water, which is crucial in making sound decisions about infrastructure investment.

A key point made in the report is the need for rationalisation of the allocation of water among domestic, industrial and rural water users. The largest water users, irrigators, face an even more inefficient pricing system than do domestic consumers. A significant share of existing rural water uses is not going to its highest value use. The state urgently needs both water pricing reform in the rural sector, and an efficient system for trading between sectors to ensure that water does go to its highest value use.

Social objectives are mentioned in the report. In general, water pricing should not be used as a means of achieving social welfare objectives. Other welfare policies should be used

for that. Attempts to protect social welfare through water pricing inevitably mean that efficiency of resource use and resource conservation suffer.

There have been adverse comments in the media about higher water prices affecting larger families. This is ridiculous. We do not provide subsidies based on family size for any other product consumed by large families (food, electricity, clothing, electrical equipment, ...) so why should water be any different. The view that water is "special" has proven a major impediment to responsible water management around the world. We should not make the same mistake.

If cost-neutrality for consumers is sought for political reasons, there is an additional option to achieve this that is not mentioned in the report. To compensate for higher marginal prices, it would be possible to compensate consumers for this by setting lower prices for inframarginal water. For example, a volume of cheap (or even free) water could be allowed per family member. As long as these free or cheap allocations add up to less than the family's total consumption at the higher marginal price, there would be no loss of allocative efficiency.

The report identifies the need to improve price signalling to consumers, so that they are given information that prompts them to reconsider their consumption decisions. I suggest that further creative thinking about this would be a good idea. Potential strategies may include

- innovative use of the internet
- provision of advice on how to read water meters
- magnetic cards for fridges that provide a water cost calculator and space to write meter readings
- internet versions of water cost calculators
- advice on how much money can be saved on water by specific water conservation strategies
- information about pricing and related issues during TV weather reports

Finally, the report is much weaker in its recommendations on wastewater pricing. It appears that political considerations have been given excess weight. I suggest that the report should focus on efficiency aspects and leave the politics to cabinet. It is important that government be aware of the efficiency costs of any decisions made for political reasons.

End.