

FINAL INQUIRY REPORT INTO REFORM OPTIONS FOR SA WATER'S DRINKING WATER AND SEWERAGE PRICES

Executive Summary

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The Essential Services Commission of South Australia is the independent economic regulator of the water, electricity, gas, ports and rail industries in South Australia. The Commission's primary objective is the *protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services*. For more information, please visit www.escosa.sa.gov.au.

EXECUTIVE SUMMARY

The Essential Services Commission has conducted this Inquiry, referred by the Treasurer, to investigate reform options for SA Water's drinking water and sewerage price structures and associated charging arrangements which might improve economic efficiency and water security for South Australia.

The Inquiry's outcomes are intended to assist the Government as it considers policy options for reform. Rather than simply reflecting a theoretical approach, the Inquiry's findings and recommendations are practical and recognise the importance to all South Australians of the many issues associated with water and sewerage pricing.

The Inquiry is particularly relevant given the significant changes that have taken place in the South Australian water sector in the past few years. The Government has put in place long-term policy measures to secure supply and protect the environment. The Adelaide Desalination Plant has removed the year-on-year supply volatility to which South Australia has historically been exposed, and now provides sufficient additional capacity to ensure water security for much of the State for the foreseeable future.

Further, at both state and national levels, the achievement of productivity improvements is becoming increasingly important to the maintenance and improvement of the community's standard of living. Reforms in the water sector, which provides inputs to other sectors of the economy, can contribute to overall productivity improvements for the South Australian economy.

It is in this context that the Inquiry was asked to consider whether existing arrangements, most of which have been in place for many years, continue to deliver the best outcomes for the community in terms of economic efficiency and water security.

In exploring this question, a longer-term view of reform has been taken. In particular, the Inquiry has affirmed the fundamental proposition that moving to cost-reflective pricing structures provides a sound means of improving the economic efficiency – and potentially the security – of water and sewerage services in this State.

Cost-reflective prices will improve economic efficiency, making clear to consumers the cost impacts of their decisions to increase or reduce consumption while also signalling the appropriateness of new investments in the sector. Current price structures, which have departed from cost-reflective levels over time:

- ▲ lead to cross-subsidies from businesses to residential customers and inflates business costs making local production less competitive
- ▲ encourage inefficient investment in alternative water sources or infrastructure, which in many cases is more expensive than the actual cost of the supply of drinking water, diverting financial and human resources away from more productive uses and potentially constraining economic growth

- ▲ may inhibit the future development of a competitive and efficient water industry by distorting the decisions of potential new entrants to the industry and leading to sub-optimal investments by SA Water.

The Inquiry expressly acknowledges that, in establishing water-pricing structures, various forces come into play. A dominant theme in submissions was the importance of citizens' access to water and sewerage services. They are considered essential and the Inquiry understands that. Therefore, while maintaining the position that moving to more economically efficient arrangements will deliver benefits, it has outlined various transitional and implementation options which may allow the Government to address those issues while still capturing economic efficiency benefits.

The Inquiry also heard and understands community concerns that any move away from existing arrangements could compromise gains the State has made in water conservation. Its proposals therefore seek to show how economic efficiency gains can be promoted without diminishing the value of past achievements in this area. While acknowledging that work to identify the environmental costs of water usage is under way, more can be done.

Overall, the Inquiry identified opportunities for reform that would improve South Australia's productivity. They involve improving the cost-reflectivity of pricing structures and changing the nature of associated charging arrangements over time. Based on a conservative estimate, and noting that it is not possible to place a dollar value on some potential benefits, quantifiable net economic efficiency benefits of at least \$30 to \$45 million per annum could be achieved in the longer term.

Although those benefits are arguably small when considered in the broader context of South Australia's annual Gross State Product of around \$100 billion, they are nevertheless material in the context of the South Australian water sector and have the potential to provide the impetus for future investment across a range of industries.

Additional benefits, which again could be harnessed over time, include providing a rigorous platform for the implementation of reforms to support future additional structural changes in the market that would also bring benefits to the State that cannot presently be quantified. It could allow for more competition in the delivery of services through the introduction of a third-party access regime contemplated under the *Water Industry Act 2012*.

Accepting that moving immediately to a "final state" of reform would present challenges, various implementation pathways have been identified. The Inquiry does not necessarily advocate the adoption of any particular pathway but it outlines some gradual implementation approaches through which increasing levels of economic benefit could be captured over the longer term, while managing social equity and environmental impacts.

The proposed framework provides space for issues of social equity to be addressed (for example, through a robust, targeted and transparent subsidy and concessions scheme) and explicitly takes into account the environmental costs of water usage, where they are known and quantified. It can therefore underpin the delivery of economic benefits for the State – small at first, perhaps, but growing over time.

Background

The Inquiry stems from the South Australian Government's *Water for Good* plan, which identified pricing reform as a key element in ensuring long-term water security and efficiency for South Australia to provide clearer and better signals to users about how and when they should consume water.

Water and wastewater prices should reflect the full cost of producing and supplying those products and services (including environmental externalities where feasible and practical) so that customers are encouraged to use water and wastewater services efficiently. (Water for Good, page 139)

Cost-reflective prices send the right signals to customers about how much water to use. Implicit in *Water for Good's* acknowledgment of the importance of moving towards cost-reflective pricing was the recognition that SA Water's current pricing arrangements, developed and implemented in an incremental manner over a long period of time, are unlikely to be fully efficient or cost-reflective.

Scope

This Inquiry has dealt with pricing structures for drinking water and sewerage services and also with associated charging arrangements. Those associated arrangements include the possibility of replacing the current system, under which landowners are SA Water's customers, with one in which end users – including tenants, the actual consumers of the service – are the customers.

Importantly, the Inquiry's purpose was not to review the efficiency of SA Water's overall costs, or to establish SA Water's revenue requirements. While these two issues are extremely important, they are managed through a different and well-established regulatory process – periodic revenue determinations by the Commission. Those determinations are made under a legal framework established by the Parliament (including the provisions of any transitional Pricing Orders) and are conducted openly and transparently.

The next review of SA Water's revenue requirements, due to begin late in 2015, will provide an opportunity for the community to consider and comment on the efficiency of SA Water's costs and overall revenues, along with matters arising under Pricing Orders, such as the value of the regulatory asset base of SA Water.

To reiterate, this Inquiry's focus has been clear. It has asked, from the perspectives of both principle and practicality: *What are the most economically efficient pricing structures and associated charging arrangements to recover SA Water's revenue requirements?*

It has found the answer to that question remains the same irrespective of the total revenue recovered by SA Water. Arrangements that better enable consumers to understand and respond to the costs associated with their consumption decisions – and which drive better investment decisions by SA Water and its customers – will improve overall economic efficiency in the longer term. Cost-reflective pricing achieves this.

What are the potential improved outcomes?

While there may be good historical reasons for factors such as social policy or environmental consideration to have underpinned the current pricing structures and charging arrangements, the Inquiry has confirmed *Water for Good's* overall proposition that there is room for improvement in terms of economic efficiency.

Indeed, the Inquiry heard arguments supporting the claim that the existing structures and arrangements could actually be impeding economic development. It has conservatively estimated overall economic benefits in the order of \$30 million to \$45 million per annum could be unlocked through the implementation of several of its recommendations. Further economic benefits of approximately \$2 million to \$3 million per annum may be available were it to prove feasible to implement location-based pricing arrangements over time.

While it is not possible to quantify the total benefit that cost-reflective pricing would produce in terms of better investment decisions by SA Water's customers, the Inquiry has been presented with evidence suggesting that this benefit may be significant.

As a direct result of current pricing structures, some South Australian businesses have invested in finding and using alternative water sources or infrastructure. Those investments have diverted their financial resources from more productive purposes, potentially inhibiting employment and growth in the local business sector and the wider economy.

In relation to water security, the Inquiry has found that recent investments in assets such as the Adelaide Desalination Plant and the North-South Interconnector have largely addressed water security issues for much of the State for the foreseeable future. However, it has also found that more work could be done to identify clear security-of-supply standards that could trigger the implementation of appropriate response mechanisms, such as scarcity pricing or other demand response measures.

Some of the benefits discussed in this report relate to value to consumers other than reduced prices. For example, there will be non-pricing benefits, such as reduced leakage, and enhanced customer protection measures. There may also be reductions in other costs outside of those inherent in customers' bills – for example, the administrative costs incurred by landlords in passing on water and sewerage charges to tenants. Ultimately, a move to cost-reflective prices will encourage consumers to use SA Water's services more efficiently, and this will provide an overall net benefit.

Finally, many of the proposed reforms will have specific importance in the context of the proposed third-party access regime under the *Water Industry Act*. Arrangements that give special treatment to SA Water will adversely affect the ability of new providers to enter the market and effectively compete to provide services to South Australians.

What are the recommended reform options?

The Inquiry has produced a suite of reform options for consideration. They are summarised below and followed by a further summary of possible pathways to implementation.

End-users becoming SA Water's customers

All users of water and sewerage services, rather than only the owner of land to which a service is provided, should have the right to be SA Water's customers. It would mean that tenants, who do not currently have a direct relationship with SA Water, would receive timely and accurate bills, understand and appreciate the costs of using the service and be able to adapt their behaviours in response to prices. They would also have access to the broad set of consumer protection rights not presently available to them under the Water Industry Act and the Commission's Water Retail Code which sets customer protection obligations on SA Water.

Metering arrangements

The Inquiry recommends that the installation of individual water meters to group-metered properties, as well as the installation of smart meters, should remain optional at this time, as there is not a financial case for departing from the status quo.

Regularising SA Water's debt security and recovery arrangements

SA Water's current statutory right to obtain a first charge over the land to which it provides a service to secure and recover debts should be removed. The change would place SA Water on a level footing with other utilities (gas, electricity, telecommunications), as well as other businesses operating in the broader economy. Other businesses do not have such special statutory rights; they must rely solely on the general law. Further, such a change would be consistent with a move to having end users (including tenants) becoming SA Water's customers. It would be an anomaly to permit SA Water to secure a debt owed by a tenant against the property of the landlord.

Removing "availability" or "rating on abuttal" charges

The practice of "rating on abuttal", whereby SA Water can charge a fee to a landowner merely because a water or sewerage main passes adjacent to the landowner's property, should cease. Where customers are connected to a service, they should pay for it. However, if no service is wanted, a customer should not have to pay.

Maintaining two-part drinking water tariffs but moving towards cost-reflective pricing

The price structure of drinking water should be continued as a two-part arrangement, with both a usage charge and a fixed charge.

Under current arrangements, while about 85 per cent of SA Water’s total drinking water costs are fixed (independent of the amount of water consumed), only 32 per cent of its drinking water revenue is derived from drinking water fixed charges, with the remaining 68 per cent of its drinking water revenue coming from drinking water usage charges. Put simply, usage charges are currently in part recovering fixed costs, and this distorts both consumption and investment decisions for drinking water.

This arrangement should be changed so that usage charges are used to recover only the costs imposed on SA Water arising from consumption – that is, the costs of putting water through the network and the future investment required to meet consumption needs. Similarly, fixed charges should be set to recover the costs that arise independently of usage (for example, mains, pumping stations and similar assets).

Applying the current non-residential single-tier usage charge approach to residential customers

The current single-tier structure for drinking water usage charges for non-residential customers should be extended to apply to all residential customers. This would see the eventual abolition of the three-tiered system for residential customers.

In the long term, the single usage charge should be set to reflect the best estimate of the cost-reflective price (set at the long-run marginal cost of water supply). The Inquiry has estimated that a current statewide marginal cost could be about 65 cents per kilolitre (acknowledging, however, that other, different, estimates could also be valid). Additional, albeit small, economic benefits would arise from region-specific usage charges (based on the long-run marginal cost for each region).

Regardless of which long-run marginal cost estimate is used (or whether another figure representing a move towards that estimate is used), a single and more cost-reflective charge will be materially lower than current usage charges.

Setting drinking water supply charges based on capacity, not customer type

The basis upon which drinking water fixed supply charges are set should be shifted, over time, from broad customer classes to the capacity of each customer’s connection to the network. In practice, nearly all residential customers would continue to pay the same fixed charge but non-residential customers, who are more likely to have varied capacity needs, would pay based on individual capacity requirements. Underpinning this proposal is the fact that SA Water’s fixed costs are generally driven by capacity, not by customer type.

Setting sewerage supply charges based on capacity, not property value

SA Water’s costs in providing sewerage services are largely fixed and independent of the volume of sewage produced. There is no significant benefit in charging volumetric sewerage prices for all but the largest users, and the cost of installing sewerage meters to facilitate accurate volumetric charging is likely to be much greater than any associated benefit.

Fixed sewerage charges should therefore be maintained and volumetric charging not introduced.

However, the method for calculating charges should be based not on property value, as now, but on the capacity requirements of each sewerage customer (in particular, the number and size of their sewerage connections). Once again, this is because capacity is the major cost driver for SA Water. This approach would be more cost-reflective and better promote economic efficiency. Most Australian states and territories have moved away from property-based charging for water and sewerage services. Only South Australia and Western Australia maintain this practice.

Ensuring that trade waste charges are cost-reflective

Large industrial sewerage (or “trade waste”) customers are charged according to the type and volume of pollutant discharged into the sewerage network. The type of pollutants discharged into the sewerage system is monitored and, for larger customers, sewage volumes are metered.

The current regime is broadly based on cost-reflective principles and should be maintained. However, it would be appropriate to review the cost inputs in more detail to ensure that prices are based on actual costs.

Reviewing water planning and management costs

Various external impacts are associated with water use, including, for example, the impact on the environment of withdrawing water from natural sources. Including the cost of those external impacts in water prices, where attributable and incurred by SA Water, increases economic efficiency, as it ensures that prices reflect all costs to the community of using water, not just those directly incurred in supplying it.

Through its drinking water charges, SA Water currently recovers amounts relating to water planning and management and this is a positive step in factoring environmental costs into prices. There would be value in conducting an independent and public review of the water planning and management costs charged to SA Water to ensure those costs are prudent and efficient.

What are possible implementation pathways?

Some of the Inquiry’s recommendations, if implemented, would not lead to the removal of cross-subsidies (for example, the recommendations to bill end users and regularise SA Water’s debt security and recovery arrangements). However, other structural reforms proposed by the Inquiry would involve the removal of cross-subsidies currently embedded within SA Water’s pricing structures. While that would be an economically efficient outcome, it could have material short-term financial impacts for many South Australian households. This highlights the challenge faced in moving to more economically efficient prices and the need to consider whether, when and how such reform might be

implemented. There is a direct trade-off between promoting greater economic efficiency and limiting bill increases for some customers.

Using drinking water as an example, a movement towards more cost-reflective charges would involve the removal of cross-subsidies that have, to date, largely been borne by large (industrial) water users.

Further, usage charges are currently, in part, recovering fixed costs, and this distorts both consumption and investment decisions for drinking water. While overall usage charges would be materially lower, fixed supply charges would increase from approximately \$280 per annum to around \$840 per annum for residential customers. This would mean an average bill increase of around \$110 per annum for metropolitan residential customers and \$220 per annum for metropolitan concession customers.

Prices would also rise for many sewerage customers as the effects of cross-subsidies, inherent in the property-value-based system, were unwound. This would impact customers with low-value properties in particular.

The outcomes of a full and immediate unwinding of the cross-subsidies would be of a magnitude previously unseen in South Australia's water sector. Clearly, were such change to be introduced in the short term, there would be significant social impacts. The Inquiry has therefore explored a range of options which the Government may wish to consider as possible pathways to implementation over time, allowing benefits to be captured in the long-term while managing transitional impacts.

The options for each change outlined below unwind current cross-subsidies, but do so gradually. They allow for a measured approach to change but would nevertheless improve economic efficiency.

Drinking water – In the first instance, to avoid making any changes to residential fixed charges and to maintain revenue neutrality, a weighted average of the current three tiers of pricing could be adopted as a single usage charge. (It would work out at \$3.17 per kilolitre.) This would enable greater efficiency through better price signals for customers; remove inefficiencies associated with the first and third pricing tiers; and allow fixed supply charges to stay at current levels. Over time, the usage charge could be reduced to a more cost-reflective level (based on an updated estimate of long-run marginal cost).

Sewerage – Properties with similar values could be grouped into broad classes, and customers in each class gradually moved towards a more cost-reflective price (based on the capacity of the customer's sewerage connection) without experiencing a large bill increase in any one year. It would be possible to do this *and* transition to cost-reflective prices over the short term, while limiting to \$100 the maximum bill increase any customer would face in one year.

Trade waste – If the proposed review of trade waste costs were to confirm that actual costs are above current levels, then a very small number of customers would be significantly impacted by the proposed changes. To manage this, an option could be to maintain those customers' total bill, but increase the usage component to reflect costs. Faced with the true

marginal cost of their trade waste decisions, these customers will have better information and be able to make smarter decisions about installing infrastructure or changing production methods.

Conclusion

In conclusion, this Inquiry proposes a long-term framework for a series of changes that would replace existing arrangements that rely on price to meet multiple, and at times conflicting, objectives.

Recognising shifts in the way services are provided in the economy and the improved level of water security recently achieved in South Australia, it has proposed a system under which price better reflects cost. This is a consistent approach that should be easy to understand and it is one that meets community goals: for consumers, for business, for SA Water, and for the Government.



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