



Independent Pricing and Regulatory Tribunal

Review of Rural Water Charging Systems

Water — Draft Recommendations
July 2012

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Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by 30 July 2012.

We would prefer to receive them electronically via our [online submission form](#).

You can also send comments by fax to (02) 9290 2061, or by mail to:

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If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 Draft recommendations

1.1 Introduction

In May 2012, the NSW Government asked IPART to conduct a review into bulk water charges to¹:

- ▼ identify options for the billing of bulk water charges that might be better matched to business cash flows
- ▼ identify options for determining the NSW Government's cost share for the Australian Competition and Consumer Commission's (ACCC) determined bulk water charges in NSW, which may include a role for IPART
- ▼ make recommendations that will assist the NSW Government to maintain viable and economically sustainable provision of services to customers, taking into account the potential impact of future pricing arrangements on customers, the State Water Corporation (State Water) and the NSW Office of Water (NOW).

In making recommendations we have been asked to consider:

- ▼ the cash flows, revenues streams and forward business planning of State Water and NOW
- ▼ the NSW Government's financial position
- ▼ statutory or policy barriers to implementation
- ▼ the NSW Government's Commission of Audit into public sector management.

The Government and State Water may use the recommendations from this review to inform State Water's first price submission to the ACCC. From 1 July 2014, the ACCC will be responsible for price determinations for State Water's operations in regulated rivers in the Murray-Darling Basin under the *Water Act 2007*. Given the significance of this change, much of IPART's analysis has focused on Basin related activities. IPART will deal with coastal valley issues and customer impacts in more detail in the course of our 2014 reviews of NOW and State Water.

¹ Terms of Reference for the review rural water charging systems, http://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Rural_Water/Review_of_Rural_Water_Charging_Systems_2012/25_May_2012_-_Terms_of_Reference/Terms_of_Reference_-_Section_9_-_Rural_Water_Charging_System_Review_-_May_2012.

As part of this review, we held workshops in Griffith and Narrabri in June 2012. Later in June 2012, we released a discussion paper setting out our initial analysis and preliminary views. On 3 July 2012, we held a public hearing in Sydney to gather stakeholders' responses to our preliminary views.

The purpose of this document is to outline our draft recommendations to Government and seek stakeholder feedback on those recommendations. In preparing this document, we have performed further analysis and taken into account stakeholders' input, including written submissions to our discussion paper.

1.2 Billing of bulk water charges

In the discussion paper we examined the relationship between water availability and customers' cash flows and explored ways the billing of bulk water charges might be better matched to business cash flows. Our preliminary view was that the current tariff structure for NOW and State Water, combined with a conditional deferral of payment for fixed charges would better match most customers' cash flows in times of low water availability, whilst minimising negative impacts on State Water, NOW and the State Budget.

We sought stakeholder input on our preliminary views and performed further analysis on the impact of low water availability and billing options on farm cash flows. We have focused our analysis on farm cash flows as it is specified in the terms of reference for this review.

In this paper, our recommendations on maintaining current tariff structures for State Water and NOW includes the full suite of tariffs charged by State Water and NOW, for example:

- ▼ tariffs for high security users (State Water)
- ▼ 60:40 fixed to variable tariffs for Hunter and North Coast valleys (State Water)
- ▼ rebates to listed large licence holders (State Water)
- ▼ tariffs for floodplain harvesting licence holders (NOW).

For discussion purposes, we have focused on the key tariff design of 40:60 fixed to variable for State Water and 70:30 fixed to variable for NOW, where a meter has been installed and 100% fixed where usage is not metered.

1.2.1 Payment terms

Draft Recommendation

- 1 For both State Water and NOW: in combination with the proposed tariff structures in section 1.2.2, provide for a conditional deferral of payment of fixed charges, with interest, in times of low water availability for regulated river customers:
 - the trigger for deferral to be set at 2 consecutive years of less than 5% of cumulative available water determinations at the end of the financial year when expressed as a percentage of the volume on a Water Access Licence
 - interest rate to be as set by the Supreme Court plus 2.5% (or an appropriate estimate of State Water’s holding costs)
 - a deferral period of no more than 2 years.

NOW to develop a conditional deferral arrangement for unregulated river customers, equivalent to the deferral arrangement offered to regulated customers, with reference to the relationship between customers’ cash flow and water availability.

A deferral of payment of fixed charges (with interest) is the most direct and simple way to reduce any negative cash flow impacts during times of low water availability. The deferral of payment can be triggered when specific conditions are met and can also be targeted at specific groups of customers.

Stakeholders submit that a deferral arrangement would help with reducing negative cash flow impacts in times of low water availability and that a sequence of low water availability is an appropriate measure for a trigger of deferral.² Some stakeholders expressed the view that timing of allocations is important, and that allocations after October can come late for farming decisions.³ Some stakeholders also submit that a trigger of 2 consecutive years of less than 5% available water determination is appropriate.⁴ Some stakeholders suggested that the 5% trigger level be based on water allocations in individual valleys.⁵

² For example, Lachlan Valley Water submission to the Review of Rural Water Charging System Discussion Paper, 11 July 2012, pp 4, 5.

³ For example, NSW Irrigators’ Council submission to the Review of Rural Water Charging System Discussion Paper, 10 July 2012, pp 7, 8.

⁴ For example, Lachlan Valley Water submission to the Review of Rural Water Charging System Discussion Paper, 11 July 2012, pp 4, 5.

⁵ NSW Irrigators’ Council submission to the Review of Rural Water Charging System Discussion Paper, 10 July 2012, p 8.

It is important to differentiate between options for billing of bulk water charges, and the Government's drought policy. The NSW Irrigators' Council expressed concern that we did not canvass a waiver of fixed charges,⁶ even though it was a Government commitment during the last drought. The terms of reference for this review require us to consider options for billing water charges, with regard to the impact on State Water, NOW and the State Budget, as well as customers. Drought policy is also a matter for the NSW Government, however it is not the subject of this review.

Regulated rivers – both State Water and NOW

We explored different options for setting a trigger for deferring the payment of fixed charges. Firstly, we analysed the point when the income from water trading ceases to cover water charges, as a possible trigger level for a conditional deferral. That is, when the level of water allocations, if sold on the open market, can no longer cover the fixed water charges of a farm business in times of low water availability.

We analysed the costs of irrigated farm businesses in the Namoi Valley (northern NSW) and the Murrumbidgee valley (southern NSW) using general security water to grow annual crops. Using conservative estimates of the traded price of allocation assignments during times of low water availability, allocations of 3%, if traded, would cover the total fixed water charges of a typical farm business in the Murrumbidgee valley. In the Namoi valley, 8% of allocations, if traded, would meet annual fixed water charges.⁷ The percentage of water allocation required to cover fixed water charges varies, depending on location and type of farm business.

Secondly, we analysed the number of times a certain trigger would occur, to understand the potential administrative burden and financial impact on State Water and NOW.

A trigger based on 2 consecutive years of cumulative available water determinations at financial year end of less than 5% would mean the possibility of a deferral of between 0 to 8 times in 100 years across different valleys⁸. That represents an average possibility of deferral of 2.1% across all the valleys. A trigger based on 2 years of zero allocation produces similar results, with an average possibility of deferral of 1.6%.

⁶ NSW Irrigators' Council submission to the Review of Rural Water Charging System Discussion Paper, 10 July 2012, p 3.

⁷ Based on State Water's and NOW's 2010/11 regulated river prices.

⁸ Based on IQQM data provided by NOW for NSW regulated valleys, June 2012.

While there may be a case for different trigger levels for the availability of bill deferral between valleys, we consider that the degree of variation in activating the triggers between valleys (3% to 8% based on estimated water allocations to cover total water charges) does not justify the administrative complexity of such a system. For the purpose of setting a trigger level for deferral, we consider that cumulative available water determinations at the end of the financial year is appropriate. Although water allocation decisions that occur later in the year may not be useful for farming purposes, generally the water can be carried over or be traded in regulated rivers.

Lachlan Valley Water submits that farm businesses can generally manage 1-year of low water allocations through water and cash reserves. But, by the end of the second consecutive year of low allocations, these reserves are generally depleted.⁹

We recommend a deferral of fixed charges with interest once there are 2 consecutive years of cumulative available water determinations at financial year end of below 5%, expressed as a percentage of the volume on a Water Access Licence. Our recommendation takes into account the negative impact of regulated water prices on farm cash flows from low water availability and the administrative burden on State Water and NOW from the potential frequency of deferral. The interest rate charged will be as set by the Supreme Court plus 2.5% (or an appropriate interest rate to cover State Water's holding costs). State Water submits that an interest rate of this level is sufficient to cover their holding costs.¹⁰ It could be expected that customers who do not require finance or are able to find a cheaper source of finance will choose to pay their bills rather than deferring. We recommend the deferral period to be no more than 2 years, having regard to State Water's debt management costs.

Unregulated rivers - NOW

The recommended 5% trigger level for regulated rivers is not appropriate for unregulated rivers as the water allocation process is different. We do not have sufficient information about water allocations and availability to inform a recommendation on trigger levels. Flows on unregulated rivers are not controlled by dam releases but depends solely on rainfall and natural river flows. Water availability is therefore highly variable and depends more on local conditions.

We recommend NOW to develop a conditional deferral of fixed charges policy for unregulated river customers, equivalent to that for regulated river customers, with reference to water availability and customers' cash flows.

⁹ Lachlan Valley Water submission to the Review of Rural Water Charging System Discussion Paper, 11 July 2012, p 5.

¹⁰ State Water submission to the Review of Rural Water Charging System Discussion Paper, 10 July 2012, p 9.

Groundwater - NOW

In general, groundwater will be less sensitive to short term variability driven by climate than surface water. Groundwater is managed by setting long term average annual extraction limits based on recharge estimates.

We do not consider a deferral of fixed charges arrangement is necessary for groundwater sources.

1.2.2 Tariff structures

Draft Recommendation

2 For NOW:

- Maintain the existing tariff structure (key tariff feature being 70:30 fixed to variable for customers where a meter is installed and 100% fixed charges where no meter is installed).

For State Water:

- Maintain the current tariff structure (key tariff feature being 40:60 fixed to variable), combined with a volatility allowance. The volatility allowance should be calculated for the holding cost for an appropriate period, for example 1-year, under ACCC's annual review process.
- Maintain the rebate to large users (irrigation corporations).
- Explore a higher fixed to variable tariff structure (90:10) with the Commonwealth Environmental Water Holder, before submitting the proposal to the ACCC for the 2014 price determination. State Water to also explore extending the higher fixed to variable structure to other specified customers in time.

As outlined in our discussion paper, we considered that the current tariff structures for State Water and NOW provide a fair sharing of risk between the service provider and the customers. Prices for State Water's general entitlement licences are based on a fixed to variable charge ratio of 40:60 with a revenue volatility allowance. NOW's prices are set using a fixed to variable ratio of 70:30 where a meter (as defined by IPART) is present, and 100% fixed where usage is not metered.

Given that NOW's charges are lower than those of State Water, until more users are metered, the case for change of tariff structure is not clear, nor is it advocated by stakeholders. For this reason, we have focussed our analysis on the price structure options for State Water's charges. Further, we did not examine a customer choice option for NOW as the current level of metering for NOW's unregulated river and groundwater customers is low. As a result, the cost of implementing such a complex option for NOW may outweigh the benefits.

Analysis of options

We analysed 4 tariff structure options for State Water:

1. the current 40:60 fixed to variable tariff structure with a volatility allowance
2. a fixed to variable ratio of 90:10
3. a choice of high (90:10) or low (40:60) fixed charges for customers
4. current 40:60 fixed to variable tariff structure for all customers, but a 90% fixed charge for specified licence holders that meet a set criteria.

State Water's stakeholders have expressed a preference for the current 40:60 fixed to variable ratio. Some of its stakeholders also expressed support for a choice between a higher or the current fixed to variable ratio tariff structure.¹¹ In contrast, the Commonwealth Environmental Water Holder submits that there may be potential for it to pay a higher proportion of fixed charges, on the basis that if a higher fixed charge was paid, the risk premium under a 40:60 fixed to variable tariff structure would no longer need to be paid.¹²

In analysing the impact for State Water's customers from the first 2 options, we find the total annual water charges paid by customers in a valley is significantly less under a 90:10 tariff structure than under a 40:60 tariff structure, in times of low water availability. In some valleys where water availability is more variable, a 40:60 tariff structure is particularly beneficial.

From State Water's perspective, we found that over a 20-year period, there would be a 2% difference in State Water's cumulative revenue between a fixed to variable tariff structure of 90:10 compared with the current tariff structure of 40:60 fixed to variable charges with a volatility allowance¹³. This suggests that, over the longer term, there is no material impact on State Water's revenue from using either of those 2 tariff options.

We also analysed the option where State Water's customers could choose between a fixed to variable tariff structure of 40:60 with a volatility allowance, or a 90:10 fixed to variable tariff structure.

¹¹ For example, NSW Irrigators' Council submission to the Review of Rural Water Charging System Discussion Paper, 10 July 2012, pp 9, 10.

¹² Commonwealth Environmental Water submission to the Review of Rural Water Charging System Discussion Paper, 5 July 2012, p 1.

¹³ Volatility allowance is calculated in the same way as per the 2010 price determination for State Water.

Our analysis shows that a variance between actual and forecast usage for one preference group (either the group that chose 40:60 fixed to variable tariff structure with a volatility allowance or the group that chose 90:10 fixed to variable tariff structure) results in a significant reduction in revenue for State Water. For example, if usage by the 90:10 preference group increases over the 40:60 preference group by 12.5%, then the decrease in State Water's annual revenue per annum is on average \$2.4m (or 4.4%).

Under the ACCC's annual review process where prices are updated for consumption forecast, prices are expected to be updated annually to incorporate new information on consumption between the 2 pricing groups. This means the difference between the total annual charges between the 2 tariff structures would be less. As such, there is less rationale for a choice option under an annual review process.

The customer choice option is complex. State Water outlined in its submission some of the risks and administrative complexities associated with this option, including additional billing and customer support costs, trading complexities and the potential for water users to make arbitrage gains, at the expense of State Water.¹⁴

Lastly, we explored the option of retaining the current tariff structure for State Water but for specified licence holders that meet a set criteria, negotiate an agreement for a 90:10 fixed to variable tariff structure, without a volatility allowance. The Commonwealth Environmental Water Holder is potentially one such large customer and has expressed a preference for this tariff.

The purpose of retaining the current tariff structure for State Water but with specified licence holders under a 90:10 tariff structure provides more revenue certainty for State Water. The advantage of this option over option 3 is that it is administratively more simple, as it is limited to specified licence holders, and there is less scope for arbitrage.

More work is needed to scope the implementation of this option, including:

- ▼ identify any legislative constraints
- ▼ set the appropriate criteria
- ▼ obtain customers' forecast of future water usage
- ▼ reach agreement with customers.

We recommend State Water to explore a higher fixed to variable tariff structure (90:10) in the first instance with the Commonwealth Environmental Water Holder, before submitting the proposal to the ACCC for the 2014 price determination. We also recommend State Water to explore extending the 90:10 fixed to variable tariff structure to other specified customers in time.

¹⁴ State Water, submission to the Review of Rural Water Charging System Discussion Paper, 10 July 2012, p 8.

Murray Irrigation has asked IPART to address whether the rebate that State Water currently makes available to irrigation corporation customers should continue.¹⁵ We consider there is merit in continuing this rebate under future pricing arrangements, in recognition of the economies of scale and avoided costs involved in providing metering services to large companies.

Volatility allowance

We consider a volatility allowance under a 40:60 tariff structure for State Water appropriate to reflect the risk premium to State Water for taking on additional revenue volatility under this tariff structure. In a commercial environment, firms may choose to insure against this revenue risk and incorporate the cost of insurance into prices. Over the longer term, the volatility allowance compensates State Water for this revenue risk.

We examined how the revenue volatility allowance could be implemented under the ACCC's review process. In our 2010 determination for State Water, we calculated the volatility allowance based on holding costs to cover the revenue volatility over 4 years of a determination period.¹⁶ Given that the ACCC will review prices for updated consumption forecasts on an annual basis, there is a case for calculating the volatility allowance to cover annual holding costs only, rather than holding costs over 4 years. For illustrative purposes, using our 2010 determination for State Water, this would result in the current annual allowance of \$2.2m being reduced to \$930,000.¹⁷

Our recommendation on a tariff structure for State Water is a 40:60 fixed to variable ratio with a volatility allowance for annual holding costs. There is not a material impact on State Water's revenues between a 40:60 with a volatility allowance and 90:10 fixed to variable tariff structure over the longer term. In addition, a 40:60 tariff structure provides benefits to water users in times of low water availability.

1.3 Cost shares

Under ACCC's price review process, the ACCC will set prices based on efficient costs and take into account any contributions from sources other than users. The ACCC expects the NSW Government's cost share of activities to be known at the time it sets State Water's prices. This means that the NSW Government will need to determine the amount of government contribution prior to the ACCC price review process.

¹⁵ Murray Irrigation Ltd submission to the Review of Rural Water Charging System Discussion Paper, 11 July 2012, p 6.

¹⁶ IPART, *Review of bulk water charges for State Water Corporation From 1 July 2010 to 30 June 2014 – Final Report*, June 2010, pp 50-60.

¹⁷ (\$2009/10), IPART, *Review of bulk water charges for State Water Corporation From 1 July 2010 to 30 June 2014 – Final Report*, June 2010, p 58.

1.3.1 Government cost shares

Draft Recommendation

- 3 Government to pay State Water a community service obligation equivalent to the government's share of efficient costs as calculated using the same cost sharing ratios determined by IPART in the 2010 price determination for State Water until 1 July 2017. After that, IPART would review the cost share ratios and activities prior to every second ACCC determination (ie, every 8 years), starting in 2017.

We have developed a methodology over several price determinations for sharing the cost of activities of State Water and NOW between Government and users, based on the 'impactor pays' principle. There is a potential role for IPART to continue to advise the NSW Government on the amount of government cost share for State Water under the ACCC price review process.

Stakeholders have expressed support for our preliminary view for an independent body such as IPART to advise the Government about the method of determining the Government cost share, and to review the calculation on a regular basis.¹⁸ Some stakeholders submit that the first IPART review should begin in 2014 rather than 2017.¹⁹

Our recommendation is for the Government to pay State Water a community service obligation as calculated using the same cost sharing ratios determined by IPART in the 2010 price determination for State Water until 1 July 2017. After that, we would review the cost shares ratios and activities at every second ACCC determination (ie, every 8 years). The cost sharing ratios for State Water was last reviewed in the 2010 Determination. We consider reviewing the cost sharing ratios every second pricing determination period as a suitable balance between the need to ensure that the cost sharing ratios remain appropriate, and the additional costs imposed in undertaking a separate review of cost shares at every pricing determination.

¹⁸ For example, NSW Irrigators' Council submission to the Review of Rural Water Charging System Discussion Paper, 10 July 2012, p 11.

¹⁹ For example, Macquarie River Food and Fibre submission to the Review of Rural Water Charging System Discussion Paper, 10 July 2012, p 10.

Many stakeholders have raised concerns that there are customers of NOW and State Water which impose costs on the system but are not subject to water charges. That is, there are free riders such as basic rights holders and the environment, where environment allocations are not licensed, for example environmental contingency allowance.²⁰

Currently, there is no framework for licensing basic rights holders, so there is less information on the costs that these users may impose on NOW and State Water. This issue was raised at the 2011 NOW Determination and we asked NOW to consider and publish a policy or guidelines on levying water management charges on stock and domestic and other basic rights holders by the next price review (ie, September 2013).²¹

We currently do not have sufficient information to make recommendations in relation to charging basic rights holders and for providing environmental contingency allowance. The following steps could be adopted to inform the Government on this matter:

1. NOW and State Water to jointly determine the magnitude of the cost they incur arising from the impacts on the rural water system by basic rights holders and in providing for environmental contingency allowance.
2. NOW to formulate a policy to deal with basic rights holders and providing for environmental contingency allowance, informed by the results of step 1.
3. If the magnitude of the cost as determined under step 1 is significant and the costs can be accurately recorded, decide on one of the following options based on the relative costs and benefits:
 - a) create a separate activity code for basic rights holders and providing environmental contingency allowance and allocate 100% government share to this activity code
 - b) determine which of the existing activity codes are impacted by basic rights holders and in providing for environmental contingency allowance and adjust the cost sharing ratios based on an allocation of the current costs
 - c) create new water licences for basic rights holders and for environmental contingency allowance, this will require legislative change.

1.3.2 Under recovery of user share of costs

Draft Recommendation

- 4 Progressively increase the average Peel Valley bill by 5% per annum until full cost recovery is achieved with the residual of the full efficient costs not recovered from users in the interim period to be funded by a Community Service Obligation.

²⁰ For example, Murray Irrigation Ltd submission to the Review of Rural Water Charging System Discussion Paper, 11 July 2012, p 6.

²¹ IPART, *Review of prices for Water Administration Ministerial Corporation from 1 July 2011– Final Report*, February 2011, p 18.

We currently determine prices using a valley by valley methodology. We consider this appropriate to avoid cross subsidies between valleys. This approach is also consistent with the National Water Initiative as agreed by the Council of Australian Governments (COAG)²². Valley based pricing allows direct costs to be allocated to the relevant valley and provides the appropriate price signal for water users to operate efficiently.

Prices for valleys are largely affected by the efficient cost of providing the services using current infrastructure and the number of customers that contribute to the cost. In valleys where there are a small number of users to share the cost, prices can be significantly higher than in valleys with many more of users contributing.

Under State Water's prices, the Peel Valley is the only valley in the Murray-Darling Basin currently not at full cost recovery: only 90% of the user share of costs are recovered. In our 2010 State Water Determination, average bill increases were capped at 10% per annum taking into account the impact of price increases on Peel Valley water users.²³

In the discussion paper, we sought stakeholder input on the economic case for an ongoing subsidy for the Peel Valley, with price increases capped at 5% per annum in real terms until full cost recovery is achieved.

Stakeholders have expressed concerns about their future financial viability if full cost recovery is pursued.²⁴ Other options suggested by stakeholders include freezing the 90% cost recovery ratio.²⁵

In the 2010 State Water price determination we capped increases in the average bill for the Peel at 10% per annum. A 5% real increase in the average bill from 2014 would mean bill increases would be \$171 lower than would occur with a 10% real increase, all other things equal.²⁶

All other things being equal, we estimate the change from a 10% cap on average bills as per IPART's 2010 price determination for State Water to a 5% cap on average bills per annum in real terms would increase the Government subsidy from \$108,000 in 2013/14, to \$152,000 in 2014/15 (\$2009/10).

²² Author, National Water Initiative pricing principles, 2010, p 15.

<http://www.environment.gov.au/water/publications/action/nwi-pricing-principles.html>.

²³ IPART, *Review of bulk water charges for State Water Corporation From 1 July 2010 to 30 June 2014 – Final Report*, June 2010, p 133.

²⁴ For example, NSW Irrigators' Council submission to the Review of Rural Water Charging Systems Discussion Paper, 10 July 2012, p 13.

²⁵ For example, Peel Valley Water Users Association submission to the Review of Rural Water Charging Systems Discussion Paper, 11 July 2012, p 18.

²⁶ (\$2009/10) For general security small user with 150 ML of entitlement and 60% allocation.

We recommend progressively increasing the average Peel Valley bill by 5% per annum until full cost recovery is achieved. We consider this to be the most economically efficient option. This recommendation can be implemented under the existing provisions of the State Owned Corporations Act.

1.4 Impact of future pricing arrangements

The terms of reference for this review asks us to examine the impact of future pricing arrangements on customers, State Water and the State Budget. The major impacts for State Water stem from the transition to a post-tax building block framework under the ACCC. Changing from a pre-tax framework to a post-tax framework means tax allowance is not part of the weighted average cost of capital (WACC) but is a separate notional revenue building block. We consider there are 2 major issues for State Water under ACCC's post-tax framework: financeability and regulated asset base (RAB) value.

1.4.1 Financeability

Draft Recommendation

- 5 State Water to perform a financeability analysis and if necessary, submit to the ACCC a case for a financeability allowance as an additional notional revenue building block.

State Water is concerned that a 40:60 tariff structure with a volatility allowance would provide insufficient revenue under ACCC pricing principles, as a lower WACC is calculated.²⁷ State Water submits that the volatility allowance should be revised to compensate for the lower return on capital.²⁸

The return on capital, in the form of a WACC, compensates shareholders of a business for committing capital to the business. The WACC accounts for the systematic or market-wide risk of holding shares in the relevant business that cannot be avoided by holding it as part of a diversified portfolio. Business-specific risks such as revenue volatility are not accounted for in the WACC.

To analyse the impact of future pricing arrangements, we used the same model as was used in our 2010 State Water determination to analyse the 2 different price structure options proposed in this review, but updated for a real post-tax WACC. This modelling is done for analytical purposes only, with assumptions made based on the guidance provided by the ACCC principles and updated market parameters as at June 2012.

²⁷ State Water submission to the Review of Rural Water Charging Systems Discussion Paper, 10 July 2012, p 6.

²⁸ Ibid.

Using available data for 2010/11 from the 2010 State Water determination, our analysis shows that under a 40:60 fixed to variable tariff structure, with a post-tax WACC and a volatility allowance (calculated as per the 2010 determination), State Water's notional revenue reduces by about 17%. The impact on the average bill for a general security customer, for example in the Murrumbidgee, is a reduction of about 5%. Similar results are derived from a 90:10 tariff structure. The major causes of this reduction in revenue are the change from a pre-tax to a post-tax building block model, a lower beta value, prevailing market conditions and the use of point estimates rather than ranges for parameter and WACC values.

Our analysis shows that there is potentially a significant drop in State Water's notional revenue under the WACC framework as outlined by the ACCC, which could in turn potentially have a negative impact on the State Budget as an equity injection could be required.

We do not consider the volatility allowance an appropriate adjustment mechanism for the potential reduction in revenue under the post-tax WACC framework outlined by the ACCC. Rather we consider that a financeability allowance to be a more transparent way to address any potential revenue reductions. This is an addition to the revenue calculated under the building block approach. It advances revenue that State Water will receive in the future and is a temporary adjustment to address financeability concerns. The amount of the financeability allowance would be deducted from the regulated asset base at the subsequent price review. The ACCC does not have a financeability policy for the rural water sector. We recommend that State Water take the following steps:

- ▼ illustrate the impact to State Water's notional revenue under ACCC's guidelines with reference to key financial ratios, a similar analysis to that performed by rating agencies
- ▼ submit to the ACCC a financeability allowance as an additional notional revenue building block, to the extent that the financial ratios indicate a potential downgrade in credit rating, an increase in State Water's cost of debt and lessened ability to fund future capital programs.

1.4.2 Regulated asset base

Draft Recommendation

- 6 State Water to submit a case to the ACCC to revalue its regulated asset base for the change from a pre-tax to a post-tax building block model

We consider that there is a case for revaluing State Water's RAB for the change from a pre-tax framework to a post-tax framework under the ACCC.

In 2005, we determined State Water's RAB using a converted annuity approach and using a pre-tax WACC. The RAB was set such that the return on and of assets in the first year of the determination provided the same revenue as the previously used annuity approach. The resulting RAB valuation also reflected the revenue generating capacity of the assets.

In our 2011 review²⁹ State Water asserted that a higher initial RAB value would have been calculated using a post-tax WACC and argued that it is appropriate to ensure that revenue neutrality is maintained in moving to a new approach. We supported the principle of making an adjustment to the initially created RAB to reflect the change to a post-tax WACC. However, there is potentially little scope for a change in State Water's opening RAB value under the *Water Charge (Infrastructure) Rules 2010*.

Price determinations under the *Water Charge (Infrastructure) Rules 2010* calculate the rate of return on the RAB under a post-tax WACC framework. The ACCC's pricing principles state that where an operator has had its RAB set by a state regulator in a period before the initial regulatory period under Part 6 of the *Water Charge (Infrastructure) Rules 2010*, this value must form the opening RAB value for the initial determination process under Part 6.³⁰

We recommend that State Water submits a case to the ACCC to revalue its regulated asset base for the change from a pre-tax to a post-tax building block model. Preliminary calculations of the potential adjustment show that it is a small increase relative to the value of State Water's RAB as at 2012/13 and should not cause large price shocks if the ACCC decides to update the RAB.

In the past stakeholders of our reviews have suggested that there is also a case for revaluing utilities' RABs to more accurately reflect the cost of replacing those assets. For example using the Modern Engineering Equivalent Replacement Asset value (MEERA) or the Depreciated Optimised Replacement Cost method (DORC)³¹. We have considered these submissions and note that these methods overstate the value of assets for pricing purposes, unless adjusted, as they:

- ▼ include the costs of replacing assets funded from external revenue
- ▼ include the value of stranded assets and assets not utilised for productive purposes
- ▼ overstate the value of next generation assets by excluding the capital costs of shifting from one vintage to the next.³²

²⁹ IPART, *The incorporation of company tax in pricing determinations*, December 2011.

³⁰ ACCC, *Pricing principles for price approvals and determinations under the Water Charge (Infrastructure) Rules 2010*, July 2011, p 25.

³¹ See, for example, Sydney Water's submission to IPART's review of prices for Sydney Water Corporation's water, sewerage, stormwater and other services, 16 September 2011, and Sydney Water submission on IPART's draft determination of prices for Sydney Water Corporation's water, sewerage, stormwater and other services, 13 April 2012.

³² See for example, Henry Ergas, *Valuation and costing issues in the ACCC's guidelines for telecommunications access pricing*, 1998, p 4.

We consider that valuing State Water's RAB using a converted annuity approach and considering an asset's revenue generating capacity is appropriate and is unrelated to the replacement costs of the assets. The prudent and efficient costs of assets as replaced will be added to the RAB when incurred.

1.4.3 Impact of recommendations

In summary, we made the following recommendations to ensure the financial impact on State Water, NOW and the State Budget under future pricing arrangements is broadly neutral when compared to the status quo:

- ▼ retaining the current tariff structures
- ▼ charging an appropriate interest rate to cover State Water's costs from providing a conditional deferral of payment of fixed charges
- ▼ keeping the cost sharing ratios from the 2010 price determination for State Water until 2017
- ▼ maintaining that the Peel Valley should gradually move towards full cost recovery
- ▼ adjusting State Water's RAB for the change from a pre-tax to a post-tax building block model
- ▼ including a financeability allowance in addition to State Water's notional revenue under the building block approach, after State Water performs supporting analysis.

For State Water's customers, ACCC's annual review process could mean prices are updated annually for new consumption forecasts and there is more price variation from year to year. Our recommendations on tariff structure, combined with a conditional deferral of payment of fixed charges provides State Water's customers with more flexibility to deal with water charges in times of low water availability.

1.5 Next steps

We are seeking stakeholder feedback on the draft recommendations outlined in this paper. Written submissions are due by 30 July 2012. We will present the Government with our final report by 15 August 2012.