SACOSS
South Australian Council of Social Service

Marjorie Black House
47 King William Rd
Unley SA 5061

P. 08 8305 4222
F. 08 8272 9500
E. sacoss@sacoss.org.au
www.sacoss.org.au

ABN 93 197 662 296

Mr Nathan Petrus
Director, Pricing and Analysis
Essential Services Commission of SA
GPO Box 2605
Adelaide SA 5001

Via email to: escosa@escosa.sa.gov.au

Dear Mr Petrus,

Re: Draft Advice on a Regulatory Rate of Return for SA Water

As the peak body for the community services sector in South Australia, SACOSS has had a long-standing interest in the delivery of essential services and in particular the cost of basic necessities like water because they impact greatly and disproportionately on vulnerable and disadvantaged people.

We thank ESCOSA for the opportunity to provide comment on the Draft Advice to the Treasurer on the Regulatory Rate of Return for SA Water.

While SACOSS believes that there is much scope to improve consumer pricing and the well-being of low income earners by changing both water tariff charges and structures, the Regulatory Rate of Return is important as it provides the overall quantum of money that can be charged and therefore sets the outside parameters for any change in consumer water prices. The lower that rate of return is set (within the bounds of ensuring effective water investment and supply), the more chance there is for limiting water price rises and the more scope for relief for low income earners.

Accordingly, ***SACOSS's starting position is that the Regulatory Rate of Return should always be as low as economically viable, and that it should only ever be increased on the basis of a clear, transparent and robust rationale***.

Moreover access to good quality water is essential for all community members and as such ensuring consumers have adequate access should remain the paramount consideration for the independent regulator in developing any advice with implications for water prices.

This advice specifically involves independently recommending a benchmark to the Treasurer on a reasonable return on capital figure. ***It is our conclusion that there is in fact no adequate rationale on which to base increases in the proposed return on capital contained in the draft decision.***

SACOSS engaged St Kitts Associates to advise on the technical details of the issues raised in the Draft Advice and we have attached herein the consultant's report. This report raises a number of issues of concern to SACOSS and we endorse the comments and recommendations in that report.

Having considered the report and as already noted above, it is not apparent to us that there is a clear and sufficiently robust rationale for making any proposal that results in increasing the Regulatory Rate of Return.

Furthermore, given the many variables acknowledged to be in play, there are serious concerns about both the ability to make, as well as the advisedness of making a determination of quantum at such distance from the decision point. At least some of the assumptions in the Draft Advice are unknowable at this point in time or are otherwise questionable. We particularly draw your attention to the St Kitts sensitivity testing with slightly different assumptions and figures for Debt Risk Premium, Equity Beta and Gamma. The result is much closer to the current figure of 6% than the proposed 6.88% rate.

The St Kitts report suggests various areas where more information is required, but on the basis of the information available, we do not believe that a sufficient case has been made for any increase the rate proposed by the Treasurer.

More's the point, we draw ESCOSA's urgent attention to the fact that historically, SA Water has always operated on a consistent rate of return on capital of 6% (putting aside of course the additional need for capital required to develop the desalination capacity which has already resulted in several years of price increases in the region of 20-25%). This 6% figure has seemingly over time, enabled SA Water to undertake all required capital development and improvements as needed while at the very same time also enabled a consistent and healthy return to Treasury coffers across time.

This may at least in part result from its preferential borrowing position - as an instrument of government SA Water presumably has had a capacity to borrow at a discounted financing cost relative to most commercial operations. This would enable significant cost savings and this advantage seems unlikely to change even though SA Water will now be subject to independent regulation.

From a consumer's perspective, South Australian households are already facing at least 4 years of annual 20-25% increases in the price of water to pay for desalination infrastructure. The current proposal to increase the real rate of return from 6 - 6.88% thus boosting the return to SA Water above its current return by approximately $100 million per annum may well be welcomed by both SA Water and the Government but will ultimately demand a further 5-10% increase in water prices in addition to these other increases and on top of any future CPI increases.

Price increases of such a nature are unprecedented and will be an enormous impost on all household budgets.

Of greatest concern to SACOSS though is the impost this will inevitably create for households with the lowest incomes across our community – all of whom are already burdened by major cost of living pressures - who in such circumstances will almost certainly struggle to meet these increases and thus will lose access to a basic and essential service.

Therefore simply put, for ESCOSA to conclude an increase in the reasonable rate of return is required in these circumstances, seems utterly illogical and ill advised.

Accordingly, we strongly recommend either maintaining the existing rate in the interim or at least advising the Treasurer of a range of viable rates of return and reserving a final recommendation to be made when/if more data becomes available closer to the time.

We would be very pleased to discuss these issues in person and thank you for your consideration of these comments.

Yours,

Ross Womersley
Executive Director

6 January 2012

ADVICE ON A REGULATORY RATE OF RETURN FOR SA WATER

SOUTH AUSTRALIAN COUNCIL OF SOCIAL SERVICE

A report on:

- The Essential Services Commission of South Australia's "Advice on a Regulatory Rate of Return to SA Water" to the South Australian Treasurer.
- Key issues for SACOSS
- Recommendations

Prepared by: Andrew Nance

st.kitts.associates
14 Tucker St, ADELAIDE 5000
e: andrew@stkittsassociates.com.au

January 6th, 2012

PREFACE

SACOSS has commissioned St Kitts Associates to provide advice with respect to the Essential Services Commission of South Australia's (ESCOSA's) Draft Advice to the Treasurer on a Regulatory Rate of Return for SA Water.

This document provides a perspective based on the consultant's understanding of the interests of vulnerable residential consumers in relation to essential services. This is largely based on the consultant's 10-year history with SACOSS on energy market reform matters.

The consultant was afforded the opportunity for a meeting with Commission staff on January 4th, 2012.

Overall, the draft advice employs some of the clearest language seen in relation to this very complex and, generally, impenetrable subject. ESCOSA's efforts in this regard should be acknowledged.

BACKGROUND

ESCOSA was tasked by the Treasurer in October 2011 to advise on *"… an appropriate rate of return to apply to SA Water's assets."* Specifically, the Treasurer has sought ESCOSA's advice on;

> *"a single regulatory rate of return to apply to SA Water's new and existing regulatory assets from 1 July, 2013. The regulatory rate of return would be consistent with the pre-tax weighted average cost of capital with the cost of equity derived from the Capital Asset Pricing Model."*

The Treasurer has prefaced his request with;

> *"It is anticipated that ESCOSA's first price determination will be effective from 1 July, 2013. To help me develop a pricing order for SA Water's drinking water and sewerage charges for the initial regulatory period."*

At the time of requesting the advice, the Water Industry Bill 2011 (the legislation that will define the water market reform process in South Australia) remains before the South Australian Parliament.

Due to the special, unalterable, status afforded a Treasurer's Pricing Order as a regulatory instrument; SACOSS has previously[1] expressed concerns over the lack of transparency and consultation regarding the impending Treasurer's Water Pricing Order.

[1] The SACOSS submission to the Draft Water Industry Bill is available from http://www.sacoss.org.au/online_docs/110117_SACOSS%20Submission%20to%20DFW-WaterIndustryBill2010.pdf

SUMMARY

1. The DRAFT advice recommends increasing the current allowance for a regulatory rate of return from 6% (pre-tax real) to 6.88%.

2. The Draft Decision does not go to any detail in discussing the reasonableness or appropriateness of using **6.88%** compared to the Treasurer's current use of **6%**. ESCOSA's draft advice, in effect, is that the current rate of return is some 15% below what an 'efficient' utility would require. This is an extremely important statement to make. Given that the SA Water Regulated Asset base is in excess of \$10bn[2], the draft result, if applied, would trigger an increased revenue allowance of **over \$90m per annum.**

3. A regulated rate of return is a derived from a complex formula that combines 'observable' and 'implied' elements. Some of these are fairly well 'known', some of these can only be 'known' to likely be within a declared range (a 'confidence interval' representation rather than a precise single figure). Of these that can be known, their value tends to be very 'point in time'. To be clear, ESCOSA state in the chapter entitled 'Limitations' that:

   The advice that the Commission is now providing will be out-dated and hence unreliable for a price determination which will occur at a future date.

4. In summary, SACOSS should be concerned that the Treasurer is seeking advice on a regulatory rate of return around 18 months prior to its application with no clarity over ESCOSA's ability (as the independent regulator) to update this advice with contemporary data immediately prior to its application.

5. SACOSS should be particularly concerned that, since the draft advice significantly exceeds the rate of return currently applied to SA Water, the Treasurer (as, essentially, SA Water's sole shareholder) may seek to lock in the single figure (or even key elements of it) in the Pricing Order and not allow ESCOSA to review the settings in the context of the economic and market conditions that prevail much closer to the time of application.

6. SACOSS should be concerned that, by advising a specific rate of 6.88% (pre-tax real), the result implies a precision that does not actually exist in the multiple parameters from which the result has been derived. Each digit in the second decimal place of the rate of return (what is sometimes referred to as a 'basis point') corresponds to a revenue allowance around \$1m per annum.

7. Initial testing of the sensitivity of results to three parameter values (within the ranges identified by ESCOSA and its consultants) yields a result of 6.1%. Further analysis can be expected to include the existing 6% within a reasonable confidence interval.

8. The case to change from 6% has not been made.

[2] From the DTF 2011-12 Regulatory Statement

RECOMMENDATIONS

9. It is recommended that SACOSS submit to ESCOSA that the final advice to the Treasurer should be substantially amended from the current draft and instead constitute;

    a. A bottom-up methodology for deriving a single rate of return (including recommended data sources) that can apply to all of SA Water's assets (new and legacy).

    b. A top-down 'cross-check' that compares the 'single figure' with that applied in other water industry decisions and that has applied historically in SA. [*In recent debates over the efficacy of energy network regulation, the AER*[3] *has contended that the ability for regulated entities to cherry pick individual elements for post-determination challenge has constrained the AER's ability to ensure the aggregate figure is reasonable. There is no need to reinforce this limitation here*]

    c. A plausible range of the rate of return (based on the ranges for each parameter discussed in the draft advice) and, if unavoidable, a point estimate of the most probable single figure. As a minimum, the advice should include sensitivity testing of the key parameters and some sort of statement regarding the uncertainty that exists in the estimates.

    d. Discussion of the differences between the advised figure (range) and that being applied in current pricing decisions. In particular the impact of the very different Debt Risk Premium (3.8% vs 1.1% currently, refer Draft Advice Table 2) parameter value.

    e. A statement that details how the advice aligns with the NWI Pricing Principles and ESC Act objectives (with respect to the long term interests of consumers).

[3] Refer, for example, a speech by Chairman Andrew Reeves to the Energy Users Association of Australia Conference. See 'Finding the balance – the rules, prices and network investment' available from www.aer.gov.au/content/index.phtml/itemId/747140/fromItemId/656052

ANALYSIS

10. ESCOSA have employed a familiar approach from energy (and other) infrastructure regulation. Certainly, in relation to energy, the derivation of a regulated rate of return has been, and continues to be, quite controversial. It would be unreasonable to think that the application of this approach by ESCOSA to SA Water would resolve any of these latent issues. Each of the key parameters is discussed below.

11. Nominal Risk Free Rate

    The use of 10 year Commonwealth Government Bond rates as the measure of 'risk free' is accepted practice albeit with some debate around time to maturity as acknowledged in the draft advice. This is one of the parameters that must be revisited immediately prior to application.

12. Credit Rating

    The use of BBB is acknowledged as the benchmark for private utilities however the impact on the Debt Risk Premium derived from the combination of Credit Rating and Gearing is relevant. The use of a BBB benchmark for an industry dominated by public businesses backed by State Treasuries (who invariably maintain better credit ratings than BBB) will however inflate any estimate of borrowing costs.

13. Gearing

    The use of 60:40 Debt:Equity is accepted as the benchmark for private utilities however the impact on the Debt Risk Premium derived from the combination of Credit Rating and Gearing is relevant. It is noted that SA Water's current debt level is around 30% of assets[4] and credit rating (via the South Australian Government) is significantly better than BBB. The combined impact on Debt Risk Premium should have been sensitivity tested.

14. Debt Risk Premium

    ESCOSA has sought specific advice from its consultants (Value Advisor Associates, VAA) on this item. VAA advised on the limitations apparent in this domain and provided a number of options. Some of these options were used to derive a range of possible Debt Risk Premium (DRP) values. VAA recommended using 3.8% since this corresponds to the results achieved using the more robust options.

    There does appear to be evidence of the 'true' value being in this region (for BBB at 60% Debt). However, neither VAA or ESCOSA have performed any sensitivity testing of a plausible range. The VAA analysis of 5 main options (a total of 8 sub-options) yielded an average of 3.48% and a Median of 3.73%. Testing sensitivity at, say, 3.6% would seem prudent. Further analysis of the impact of credit ratings and gearing levels may well identify a need to expand the range of sensitivity testing.

    The Value Advisor Associates report[5] identified numerous options for deriving a cost of debt. This included two options that were not developed any further:

    h) Use the actual cost of debt for SA Water;

[4] Transparency Statement 2010-11 Potable Water and Sewerage Prices South Australia, Page 41 "*…In any event, SA Water's total debt level in 2010-11, including financial lease liabilities, is approximately 29% of total assets.*"
[5] http://www.escosa.sa.gov.au/library/111109-AdviceComponentsRateOfReturn-ValueAdvisorAssoc.pdf, page 94

i) Seek guidance from the South Australian Financing Authority and / or survey Banks engaged in infrastructure finance as to what, in their opinion, would be the current cost of raising 10 year debt at a BBB rating.

The report only makes the following comment about these two options at para 141:

141. There are two further "opinion" related options to pursue given the current paucity of data. These would be "temporary" arrangements arising purely because of the lack of data:

Use the actual cost of debt for SA Water however this does not reflect the opportunity cost;

Seek guidance from the South Australian Financing Authority and / or survey the Banks as to what, in their opinion, would be the current cost of raising 10 year debt at a BBB rating.

It is contended that this could have provided a more 'fullsome' picture of market sentiment in this regard.

It is noted that in the Exec Summary ESCOSA have stated:

Basing the regulatory rate of return on SA Water's actual cost of capital may lead to excessive prices if that cost is inefficient.

The end result is that ESCOSA <u>has</u> formed a view that the actual cost of capital <u>is</u> inefficient. However, it is apparently of the view that it is inefficient because it is too low. The effect on consumers, and the statements around "opportunity cost", deserve greater explanation.

15. <u>Equity Beta</u>

Draft advice page 19:

"An equity beta of below one denotes that the returns of the asset are less risky relative to market returns and an equity beta above one infers that the asset's returns are more risky relative to market returns."

Equity Beta has proven to be a very controversial parameter in other markets and in other decisions. It is noted that ESCOSA and VAA have identified a trend in regulatory decisions for this parameter to be slowly lowering from early decision assigning a value of 1 (ie the regulated activity is no more or less risky than the market on average) to around 0.8 (ie the activity is less risky than the market average). However, despite some emerging observations from overseas markets that this value can be in the range 0.5-0.6, ESCOSA has chosen to maintain consistency with other regulators and adopt a beta of 0.8 (as is currently applied in the setting of water and waste-water prices in SA).

For the purposes of sensitivity testing, it is recommended that an equity beta of 0.65 be tested [refer to Draft Decision Table 6 which includes references to recent decisions in water using 0.65 (ESCV) and 0.66 (QCA)].

16. <u>Market Risk Premium</u>

The draft decision adopts the 'universal' practice of setting the MRP at 6%. This is uncontroversial in that this is the same figure adopted in numerous other decisions. However, the use of a single digit percentage runs counter to the Draft advice which has been determined to three significant figure precision.

17. Corporate Tax Rate

The use of the standard 30% Corporate Tax rate is accepted. ESCOSA has acknowledged the potential for this rate to fall and that it would lead to a windfall gain for the regulated entity if the rate of return allowance did not change to reflect this. This reinforces the need to ensure that all parameters are updated to their contemporary equivalents immediately prior to their application.

18. Gamma

Similar to the Equity Beta, the Gamma (Value of Imputation Credits) is a controversial parameter. The value chosen for gamma determines the effective tax rate for the business (based on an assumed level of dividend imputation) and is therefore a very important parameter. Gamma also appears as the parameter with the widest range of plausible values.

At page 43 of the Draft Decision:

> *" … the value of gamma, therefore falls within the range of 0.25 and 0.81. ... The Commission understands the importance of regulatory stability for regulated entities and believes that given a lack of consensus within academic literature and the limitations of empirical estimates of γ, a value of 0.50 for imputation credits is currently the most appropriate value."*

Again, it would be useful to test the sensitivity of the results to this range. From a consumer perspective, the revenue requirements are lower when gamma is higher so for the purposes of understanding a plausible range, sensitivity testing at 0.3 and 0.7 would be informative.

INDICATIVE RANGE OF RESULTS

19. As an indication of the impact on the results, simple sensitivity testing has been performed on the selected parameters of:
    - Debt Risk Premium at 3.6% compared to the 3.8% used
    - Equity Beta at 0.65 compared to the 0.8 used
    - Gamma at 0.7 compared to the 0.5 used.

20. Using these parameters yields a pre-tax nominal WACC of 8.43% compared to the Draft Decision of 9.23%. This results in a pre-tax real result of **6.09%** compared to the draft decision's **6.88%.**

21. This also suggests that if such analysis was to include all parameters, the contemporary use of 6% real by the Treasurer is likely to be within a reasonable confidence interval of results.

TOP DOWN CHECK OF BOTTOM UP RESULTS

22. The 2010-11 Transparency Statement[6] provided the following insight into the selection of the current WACC value of 6% (pre-tax real):

> *The Treasurer considered relevant estimates of WACC considered by economic regulators. These WACC estimates included:*
>
> - *the Essential Services Commission of Victoria, which adopted a feasible range of approximately 4.76% to 5.42% pre-tax real (average 5.09%) for its Metropolitan Melbourne Water Price Review – Draft Decision in April 2009.*
>
> - *the Independent Pricing and Regulatory Tribunal, which adopted a feasible range of 5.7% to 7.5% pre tax real (average 6.5%) for its Gosford City Council Wyong Shire Council – Water - Determination and Final Report.*
>
> - *the Australian Energy Regulator, whose Final Decision on WACC for electricity transmission and distribution network service providers was consistent with an estimated WACC of 5.7% pre-tax real.*
>
> *The Treasurer approved that the rate of return on SA Water's new and replacement assets (WACC) should remain at 6% pre-tax real.*

23. The Draft Decision does not go to any detail in discussing the reasonableness or appropriateness of using 6.88% compared to the 6% currently. The advice, in effect, is that the current rate of return is some 15% below what an 'efficient' utility would require. This is an extremely important statement to make.
24. SACOSS can expect it to be difficult to explain this to consumers. In economic theory, such an increase is warranted because, in economic theory, if returns are too low the entity will 'under invest'. Pragmatically, it will be a difficult argument to win given the massive investments being made in water infrastructure (the various Water Security projects including the Desalination Plant)

OTHER OBSERVATIONS

25. The Draft Decision (and accompanying consultant report) included two recurring themes:

- Wide confidence intervals / statistical uncertainty
- Regulatory certainty/stability

26. Uncertainty

The repeated reference to uncertainty in the values assigned to parameters should be reflected in the final statement of advice. The delivery of three significant figure precision in the single result belies the actual confidence that underpins the advice and seems inconsistent with ESCOSA acknowledgement of the issue (Draft Advice, page 2):

> *"…While there is a 'true' cost of capital for any activity in theory, any estimate of the cost of capital is subject to a large degree of statistical uncertainty or imprecision."*

[6] Page 42. Available from http://www.treasury.sa.gov.au/dtf/infrastructure_support/water.jsp

st kitts associates

27. Regulatory stability

The draft advice contains 13 occurrences of the terms 'regulatory stability' or 'regulatory certainty'. It is clearly an important consideration for ESCOSA. It is less clear why this applies strongly in the application of energy market derived parameter values but not to the existing rate of return that applies to the regulated entity.

The pre-disposition of economic regulators to use each other's past decisions as the rationale for future decisions is a key contributor to a more stable environment for regulated entities. This is also strong reason for ensuring that, given the move toward independent economic regulation of water markets, these initial decisions are made with great care.