IPART

Independent Pricing and Regulatory Tribunal
New South Wales

3 April 2020

Mr Nathan Petrus
Director Consumer Protection and Pricing
Essential Services Commission of South Australia
GPO Box 2605. ADELAIDE SA 5001

Dear Mr Petrus

Submission on Draft Report, SA Water Regulatory Determination 2020

Thank you for the opportunity to comment on your recent draft water determination. We note that you have cited IPART documents extensively in your analysis of the Weighted Average Cost of Capital (WACC). Generally, we believe that you have presented our position accurately.

You observe that IPART's water WACC is higher than the water WACCs set by all the other Australian regulators, including ESCOSA (pp 304-305 of the statement of reasons). In analysing the reasons for this, however, we feel that you placed undue weight on the trailing average cost of debt calculation. In our view, the primary explanation for the difference in your WACC and ours is the higher cost of equity that we estimate. We discuss each of these issues in turn below.

Long-term averages of risk-free rate

Your explanation of this difference (on page 305 of your statement of reasons) emphasises our use of a trailing average method of calculating the risk-free rate, and that the way we employ long-term averages will likely capture out-dated information and that this will lead to large, persistent and foreseeable errors in the estimated risk-free rate.

For the cost of debt, IPART's approach is consistent with ESCOSA's approach which also uses a long-term trailing average. The reason for the trailing average approach is that it mimics the staggered tranches debt portfolio strategy that any prudent borrower would employ. Given such a strategy, the information about interest rates from prior years is not out-of-date. The interest rates that applied to older, but still active tranches of debt are still relevant. As a result, our estimate of the cost of debt for a water business is virtually the same as ESCOSA's FY2023 cost of debt for SA Water.[1]

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[1]   ESCOSA's FY2023 cost of debt is 4.35%. Our estimate of 4.4% is based on market observations sampled to the end of January 2020 and year 1 of the transition to trailing average for the water

For the cost of equity, the issue is that we consider that the time frame used to estimate the risk-free rate should be consistent with the time frame used to estimate the Market Risk Premium (MRP), as explained in the next section.

Cost of equity

The difference between ESCOSA's cost of equity and ours arises from differences in methodology. We are making this submission because we feel there is public benefit in an open and transparent discussion of the underlying facts and theories.

ESCOSA, along with the AER and most other Australian regulators calculate the return on equity using equation (1).[2]

$$Re = (short\ term)Rf + \beta * (long\ term)MRP \quad (1)$$

As spot risk free rates are very low right now and the long-term MRP is lower than the current MRP, this procedure gives a low estimate of the cost of equity.

In contrast, we calculate the return on equity using equations (2) – (4).

$$(short\ term)Re = (short\ term)Rf + \beta * (short\ term)MRP \quad (2)$$

$$(long\ term)Re = (long\ term)Rf + \beta * (long\ term)MRP \quad (3)$$

$$Re = \frac{((short\ term)Re + (long\ term)Re)}{2} \quad (4)$$

In our view, despite the fact that it is widely used, the approach taken in equation (1) will generate biased estimates of the market cost of equity because it combines incompatible short term and long term market observations. As you note in your statement of reasons (p 156) Frontier Economics recommended that, because there is an inverse relationship between the MRP and risk-free rate, it is important to adopt an approach to estimating the required return on equity that pairs the risk-free rate consistently with the MRP. We agree with Frontier on this point.

Our approach avoids that problem. Both short-term and long-term cost of equity estimates employ matched MRP and risk-free rate observations. It is highly significant that our current and long-term cost of equity estimates are quite similar to each other. Both of these numbers are higher than ESCOSA's equity return. We use the midpoint of the two in our WACC calculation.

We consider that our procedure generates values that correspond to equity prices a firm could obtain in real markets, either one for short-term (liquid) equity or one for long-term (patient) equity. We say these are real markets because the empirical basis of the current MRP estimates

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industry, calculated using our Bi-annual update WACC model (this observation is the mid-point of our current and long term estimates of the cost of debt of 3.0% and 5.8% respectively) https://www.ipart.nsw.gov.au/Home/Industries/Special-Reviews/Regulatory-policy/WACC/Market-Update/Spreadsheet-Model-WACC-model-February-2020

[2]   We do not measure the long term MRP in each price review, but assume it is 6%, based on very long-term averages of MRP.

is the observation of daily share price movements on the ASX. The return on equity is calculated and then the MRP is deduced from that.

The empirical basis of the long-term MRP estimates is the observation of long-term share price movements. We do not update that for each price review.

ESCOSA cites the variability and assumption-dependence of market-implied estimates of the MRP (pp 156-157) as a reason not to rely on them in calculating the cost of equity. We dealt at some length with those issues in our 2018 review of the WACC method. We believe our approach generates sufficient certainty to permit reliance on current MRP estimates.

Under our approach, we calculate the current MRP using a suite of measures, including several dividend discount models, and a market indicators method. We combine the median of the dividend discount models with the result of the market indicators method using a weighted average. That procedure helps to clarify the underlying signal of current market equity returns by filtering out much of the noise.

IPART's contact officer for this matter is Mike Smart, Chief Economist, contactable on (02) 9113 7728.

Yours sincerely
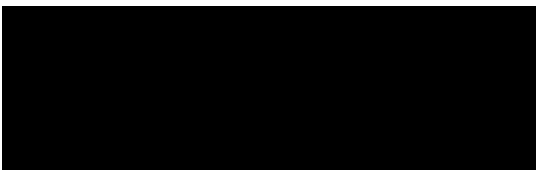
Signed by: Liz Livingstone
Liz Livingstone
Chief Executive Officer