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27 April 2020

Dr Paul Paterson
Chair
Independent Pricing and Regulatory Tribunal (IPART)
PO Box K35
Haymarket Post Shop NSW 1240

Dear Dr Paterson,

Regulatory inflation – SDP submission in response to Metropolitan Water price reviews draft determinations

Thank you for the opportunity to make a submission to the IPART metropolitan water price review processes for Hunter Water, Sydney Water and WaterNSW.

IPART's regulatory framework is crucial to making decisions that are in the long-term interests of customers. In making such decisions, IPART needs to set a framework to encourage the regulated firm to make efficient investment decisions and to ensure that it is financially viable so that it can provide value-for-money services to its customers.

We make this submission as a stakeholder in the NSW water industry and we also have a particular interest in this issue as IPART also regulates Sydney Desalination Plant (SDP). In this context, SDP appreciates the opportunity to comment on the draft regulatory frameworks for the metropolitan water businesses. Our comments focus on where we consider that IPART could adjust its approach so that it reflects the best available evidence to:

- ensure that IPART's approaches to regulation remain fit for purpose over time;
- reflect evolving empirical evidence and regulatory best practice; and
- result in regulatory allowances that properly reflect benchmark efficient costs for the long-term benefit of consumers.

In this submission, SDP wishes to highlight just two issues:

- IPART's approach to forecasting future inflation. IPART's approach to forecasting inflation in our next price determination will have a material impact on our financial viability; and
- IPART's application of its financeability tests in the recent draft determinations for Hunter Water, Sydney Water and WaterNSW. SDP considers that it is important that IPART applies the process for conducting financeability tests that it developed in 2018 so that genuine financeability concerns are identified and addressed in accordance with IPART's stated approach.

IPART approach to forecasting future inflation

IPART's existing approach to inflation

IPART's current approach is to forecast inflation over a forthcoming regulatory period by taking the RBA forecast for the first year and then assuming inflation of 2.5% for the remaining years (based on the mid-point of the RBA target inflation range). This produced an inflation forecast of 2.3% (geometric average over 4-year regulatory period) in the recent draft decisions for Hunter Water, Sydney Water and WaterNSW.

IPART's existing approach to allowed return on assets

IPART's approach to setting the allowed return on assets involves a number of steps. IPART first estimates the nominal required return (i.e., the nominal WACC). IPART then deducts its forecast of future inflation (2.3% in the recent draft decisions) and the remainder (the real WACC) is then allowed to be recovered as a cash return over the forthcoming regulatory period. The final step is to index the RAB by outturn inflation observed during each year of the regulatory period.

If IPART's forecast of future inflation is accurate, the deduction for inflation (when computing the real WACC allowance) is offset when inflation is added back (when indexing the RAB). In this case, investors will receive the return that IPART deemed to be appropriate and consumers will pay the price that IPART deemed to be efficient.

The key problem to be addressed

IPART does not have perfect foresight, so cannot forecast actual inflation over the regulatory period perfectly. Therefore, IPART's objective should be to use the best possible estimate of inflation expectations over the forthcoming regulatory period. A problem arises in the case where IPART's approach produces a forecast of future inflation that differs materially from subsequent outturn inflation (and is systematically higher or lower than true inflation expectations). In that case, the deduction for forecast inflation in one step will be out of line with the outturn inflation that is added back in the other step. In this case, investors will not receive the efficient return that IPART deemed to be appropriate and consumers will not pay the price that IPART deemed to be efficient.

Any case where the regulatory allowance differs from benchmark efficient costs is not in the long-run interests of consumers because it results in something other than efficient prices being charged and distorts the incentives for regulated businesses to pursue efficient investment. Further, in the case of a systematic over-estimation of inflation in determining the real WACC, it could affect the ongoing financial viability of regulated businesses.

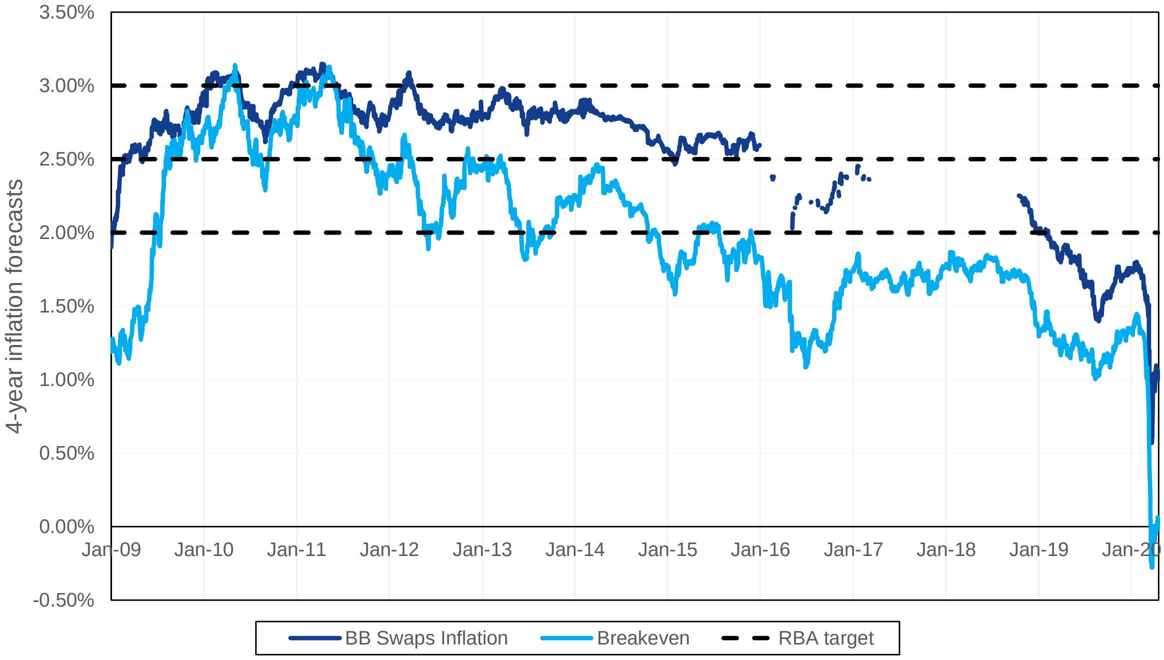
IPART's approach is not producing a reasonable forecast of future inflation in the current market conditions

In its draft decisions for Hunter Water and Sydney Water, IPART indicated that its current approach produces an inflation forecast of 2.3% p.a. over the forthcoming four-year regulatory period.

Whereas IPART's approach may have produced reasonable estimates when it was constructed and adopted, it is not producing reasonable estimates in the current market conditions. Indeed, when IPART reviewed its WACC method in 2018 it noted that 'the [break even inflation] method has merit in theory, there may be some problems with implementing it currently …' and decided to stay with its 2013 method to promote stability.[1] Since that 2018 decision, break even inflation has fallen substantially while the IPART approach to estimating inflation is heavily weighted towards the midpoint of the Reserve Bank of Australia's (RBA's) range regardless of the current level of inflation or market expectations over the regulatory period.

[1] IPART, *Review of our WACC method*, February 2018, p8.

Market expected inflation over next four years

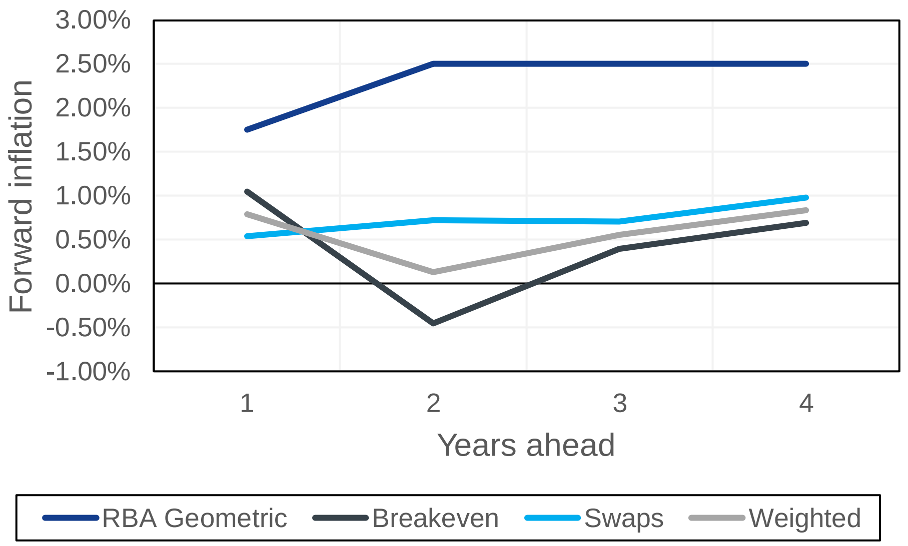


Source: RBA, Bloomberg data to 16 April 2020.

As illustrated above, current market data indicates that market participants are expecting inflation over the next four years to be materially lower than IPART's 2.3% forecast. The forecasts of future inflation derived from inflation indexed and nominal government bonds (the 'breakeven' method) and the forecasts from inflation swaps are both currently at record lows and very materially below 2.3% over the next four years.

Moreover, the breakeven and swaps data can also be used to derive the market expectation of inflation in each individual year. Again the breakeven and swaps data indicate that inflation in each of the next four years is expected to be materially lower than the assumptions that underpin the IPART forecast (illustrated below as the RBA Geometric).

Market expected inflation, year by year



Source: RBA, Bloomberg data to 16 April 2020.

In addition, the most recent (April 2020) Consensus Economics forecasts (the mean forecast over 19 banks, fund managers, and professional services firms) are also materially below the assumptions that underpin the IPART forecast, as shown in the table below.

Consensus inflation forecasts

Year	2020	2021	2022	2023
Consensus forecast	1.4	1.6	2.1	2.2

Source: Consensus Economics, 6 April 2020.

On 19 March 2020, the Governor of the RBA stated that inflation is likely to remain short of the RBA's target for an extended period:

> *At its meeting yesterday, the Board also agreed that we would not increase the cash rate from its current level until progress was made towards full employment and that we were confident that inflation will be sustainably within the 2–3 per cent range. This means that we are likely to be at this level of interest rates for an extended period.*
>
> *Before the coronavirus hit, we were expecting to make progress towards full employment and the inflation target, although that progress was expected to be only very gradual. Recent events have obviously changed the situation and we are now likely to remain short of those objectives for somewhat longer.* [2]

In summary, in the current market conditions, there is no realistic prospect of inflation returning to 2.5% p.a. for years 2 to 4 of the forthcoming regulatory period.

It would even be unsafe to rely on the RBA forecast of inflation for the first year of the forthcoming period. The Governor of the RBA also recently stated that current market conditions are so uncertain that the RBA is unable to produce updated forecasts:

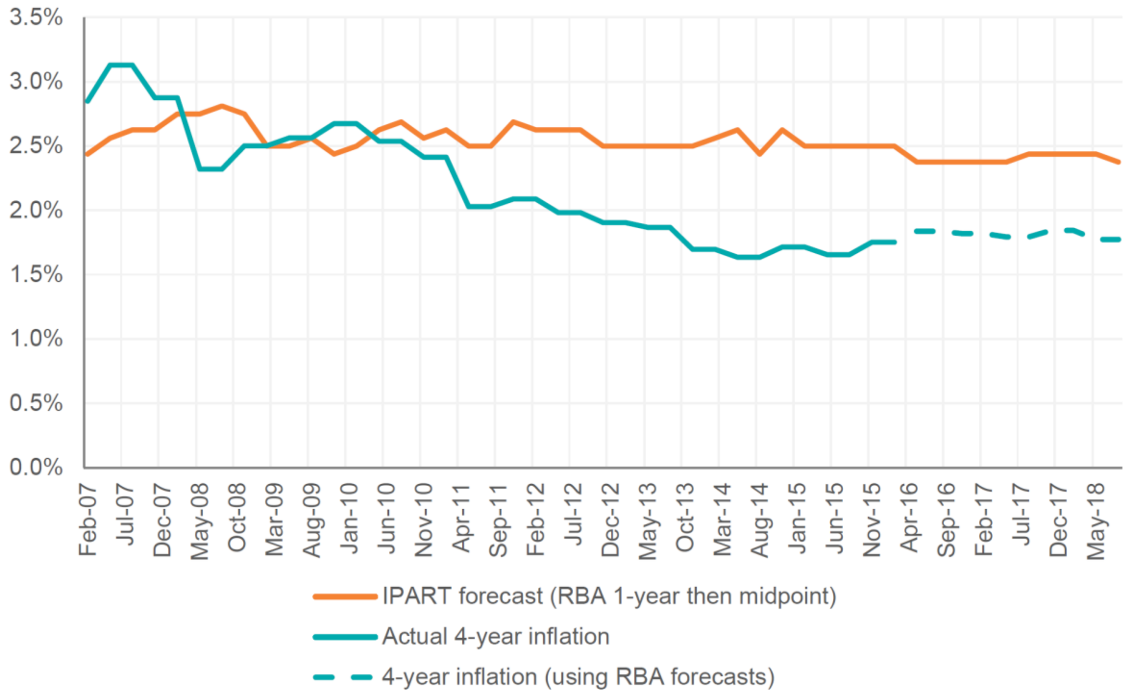
> *I am not able to provide you with an updated set of economic forecasts. The situation is just too fluid.* [3]

A long-running problem

SDP notes that actual inflation outcomes have been materially below IPART inflation forecasts for several years. The figure below shows that, for the last 10 years, actual inflation has been materially below the IPART forecast. That is, the regulatory allowance has diverged from the benchmark efficient cost consistently over the last decade.

[2] Speech by Dr Philip Lowe, Responding to the economic and financial impact of COVID-19, 19 March 2020.
[3] Speech by Dr Philip Lowe, Responding to the economic and financial impact of COVID-19, 19 March 2020.

IPART forecast vs. actual inflation



Source: Hunter Water response to draft price determination, April 2020, Figure 5.3, p. 19. The graph shows the IPART 4-year forecast against out-turn inflation over the subsequent 4-year period. Forecasts made within the last four years do not have a full 4-year period of subsequent observations. The dashed line illustrates what actual inflation would be if outturn inflation is exactly in line with RBA forecasts.

A proposed solution

Comprehensive inflation review process

SDP considers that a permanent solution to this problem requires a comprehensive review process of the inflation aspects of IPART's 2018 WACC method and that IPART provides an opportunity for all affected businesses and stakeholders to make informed submissions, and SDP would look forward to participating constructively in such a process.

True-up as an interim solution

SDP also considers that an interim solution is required until the comprehensive review process can be undertaken. This is important at the current time:

- Due to the magnitude of the current divergence between the IPART method for forecasting inflation (predominately relying on the mid-point of the RBA target range) and other market-based estimates that produce a more reasonable forecast of inflation; and
- Because the IPART approach has consistently over-estimated outturn inflation for many years, meaning that there has been a systematic under-compensation to regulated businesses.

Unless IPART uses a more reasonable estimate of inflation in the current regulatory reviews, it will not sufficiently compensate regulated businesses, affecting their ability to raise capital for efficient investment and potentially affecting their financial viability. Thus, this issue has become a matter of urgency that requires immediate consideration by IPART.

The essence of the problem is that, in the present market conditions, the estimate of inflation used by IPART to set the real WACC allowance overestimates the actual outturn inflation that is likely to be used to index the RAB. In this case, the deduction of inflation in one step of the approach (setting the real WACC allowance) is materially different from the addition of inflation in the other step (indexing the RAB). That is, the over-estimated inflation forecast results in a low real WACC that is not compensated for when the RAB is indexed by the low outturn inflation that is currently expected.

SDP notes that Hunter Water's response to IPART's draft determination on Hunter Water's prices for the 2020-24 regulatory period proposed that, until such time as IPART is able to review its WACC method to improve the inflation forecasting, an appropriate interim solution would be to true-up the difference between IPART's forecast of inflation and outturn inflation on an ex-post basis.[4] SDP supports this proposal by Hunter Water.

The under-recovery that would be caused by the use of an over-estimated inflation forecast can be quantified, at the completion of the forthcoming regulatory period, by comparing:

- The allowed revenues in each year of the regulatory period, computed using a WACC based on the current IPART inflation forecast of 2.3%; with
- The allowed revenues in each year of the regulatory period, computed using a WACC based on observed outturn inflation.

That is, if a perfect foresight inflation forecast had been adopted, the deduction for inflation (where IPART computes the real WACC) would be exactly offset by the addition of inflation (where IPART applies RAB indexation) and the NPV=0 principle would be preserved.

SDP submits that such a true-up should apply, as an interim measure, to any regulatory review that is conducted prior to a permanent solution being available from the comprehensive inflation review process discussed above.

Price smoothing

Although a true-up in the following regulatory period would correct for any mis-estimation of future inflation in an NPV-neutral way, that approach has the disadvantages of:

- Correcting a regulatory estimation error in one regulatory period with a change to prices in a different regulatory period; and
- Potentially resulting in a price shock in the subsequent regulatory period.

For these reasons, SDP supports Hunter Water's proposal that it would be preferable for IPART to effectively move part of the true-up amount forward into the regulatory period in which the forecasting error occurred. For example, setting regulatory allowances based on an inflation forecast of 2.3% is likely to result in a material true-up amount (because outturn inflation is likely to be very materially lower than 2.3%). Rather than apply the full amount to the subsequent regulatory period, the allowance in the first regulatory period could be set so as to be consistent with an inflation forecast of say 1.7% (as proposed by Hunter Water).

The selection of this 1.7% figure is arbitrary in the sense that allowances will eventually be trued-up to be consistent with observed out-turn inflation in an NPV-neutral manner—so neither consumers nor regulated businesses face any windfall gains or losses if IPART were to adopt an inflation forecast of 1.7% for the purposes of bringing forward some cash flows into the current regulatory period that would otherwise be true-up in the next period. However, the 1.7% figure would seem to be reasonable in light of the Consensus forecasts, market data, and the fact that the RBA's most recent forecast was 1.75%.

That is, IPART would continue to use is existing approach to forecasting inflation (2.3%) but would then make an additional revenue allowance (to increase revenues to where they would have been had the inflation forecast been set to 1.7%) as a means of advancing some of the expected true-up amount into the regulatory period in which the forecasting error occurred.

[4] Hunter Water response to draft price determination, April 2020, section 5.1.8.

IPART's application of financeability tests

2018 review of IPART's financeability tests

IPART reviewed its financeability test framework in 2018, and SDP was an active contributor to that consultation process. IPART made a number of important improvements to its process for conducting financeability tests, which SDP welcomed. SDP's view at the time was that, overall, the changes that IPART made to its approach to financeability had enhanced the transparency, predictability and replicability of the regulatory framework. It is also in the long-run interests of consumers to ensure that regulated entities remain financially viable.

SDP also supported the improvements that IPART had made because they seemed designed to limit the scope for material regulatory errors by ensuring an effective cross-check on the reasonableness of IPART's regulatory allowances (via the benchmark test), and because IPART had set out a clear process for addressing genuine financeability concerns arising from regulatory allowances that would be insufficient to ensure the financial viability of a benchmark efficient business.

IPART's departure from its new financeability framework in the recent draft determinations

It is a matter of concern to SDP that IPART has not applied the financeability framework that it developed in 2018, when assessing the financeability of Hunter Water, Sydney Water and WaterNSW in the recent draft determinations. IPART's own financeability tests indicate that none of the three NSW water businesses would be financeable over the 2020-24 period, in respect of the FFO-to-debt ratio. All three businesses clearly fail the benchmark financeability test, in the sense that the forecast FFO-to-debt ratios under the regulatory allowances proposed in the draft determinations fall consistently and materially below the target FFO-to-debt ratio for the benchmark test established by IPART in 2018.

IPART's test for FFO-to-debt is set at a sub investment credit level. That is, it is based on a Ba Moody's rating scale and the water businesses do not even pass the test at the sub investment grade level.

The methodology that IPART developed in its 2018 review of its financeability tests requires that, under these circumstances, IPART would:[5]

- Analyse the trends in forecast financial metrics to assess whether the breach of the target ratio was only temporary, and whether the financeability of the benchmark business would improve over the period. However, none of the draft determinations presented any such trend analysis. It is clear that the forecast FFO-to-debt ratios for all of the businesses start out at the beginning of the regulatory period well below the target ratio of 7.0% under the benchmark test and show no material improvement over the 2020-24 period. In fact, for each of the three business, the forecast FFO-to-debt ratio under the benchmark test falls below the target ratio in every year of the forthcoming regulatory period.
- Reassess its pricing decision if the trends in the forecast financial metrics show no material improvement over the regulatory period. However, IPART has not done this either. In every case, IPART has concluded that the business in question would face no financeability concerns even though the proposed allowance fails the benchmark test.

In SDP's view, it is self-evident that the draft determinations for the three NSW water businesses fail IPART's benchmark financeability test, and that there is clearly a genuine financeability concern that needs to be addressed.

There are only three possible reasons why a regulated business may fail a financeability test:[6]

- An inadequate regulatory allowance;
- Management or owner decisions (e.g., to adopt gearing above an efficient, benchmark level); and
- The crystallisation of risks (e.g., weaker-than-expected demand or higher-than-expected costs).

[5] IPART, Review of our financeability test, Final Report, November 2018, p. 58

[6] These reasons align with those identified by IPART in its 2018 review of its financeability tests. See IPART, Review of our financeability test, November 2018, Section 6.

However, only the first of these possible explanations—inadequate regulatory allowances—is relevant when interpreting the results of IPART's benchmark test.

Management or owner decisions to depart from benchmark regulatory assumptions (e.g., by increasing gearing above 60%) would have an effect on financeability metrics computed using actual figures for the particular firm, but that has no relevance to tests performed for the benchmark efficient firm. This is because, under the benchmark test, IPART assumes that the business in question has adopted the benchmark efficient level of gearing and incurs only efficient costs (including efficient interest costs that correspond to the allowed cost of debt).

Similarly, the crystallisation of various risks has no impact on financeability tests applied to the benchmark efficient firm on an *ex ante* basis—since the benchmark test assumes that the firm's revenues and costs over the regulatory period correspond to the forecasts used by the regulator to set allowances. IPART acknowledged during its 2018 financeability test review that the crystallisation of risks due to "future external shocks" are not relevant to its financeability tests.[7]

Hence, the only possible explanation for a failure of the benchmark test is an inadequate regulatory allowance. This is why the process that IPART developed in 2018 for conducting financeability tests identified that a reassessment of the pricing decision (and the regulatory allowances within that decision)—rather than action by the regulated business—would be the appropriate remedy for a failure of IPART's benchmark test.

It is striking that all of the three NSW water businesses have failed the benchmark financeability test on the same financial metric—the FFO-to-debt ratio. This suggests that there may be a systemic problem with IPART's regulatory allowances that is affecting all regulated businesses in a similar way. As IPART explains correctly in its draft determinations, FFO represents the sum of the depreciation allowance and the after-tax (real) return on equity allowance.[8] Hence, the fact that all of the businesses fail the benchmark financeability test on the FFO-to-debt metric indicates that:

- The regulatory depreciation allowance is too low; and/or
- The real return on equity allowance is too low.

In IPART's final decision on the 2018 review of the financeability tests, IPART recognised this and stated that:

> *We consider that the benchmark test would assess whether the cost of equity we have determined is sufficient. In particular, in Appendix B, we show that the FFO over debt ratio in the benchmark test will identify whether the asset lives and return on equity we have set would generate sufficient cash flow for the business to remain financeable.*[9]

One reason why the real return on equity allowance set by IPART in the draft determinations is likely to be too low is because IPART has used an unrealistically high forecast of inflation over the forthcoming regulatory period to set the real return on equity allowance. Hence, addressing the inflation issue discussed in the first part of this submission may resolve the financeability problem identified by IPART's benchmark test.

Reasoning used by IPART to conclude that there is no financeability concern

In concluding that the NSW businesses would face no financeability concerns under IPART's draft determinations, IPART seems to have relied on two pieces of reasoning—neither of which appear valid, in SDP's view:

- Firstly, IPART suggests that the target FFO-to-debt ratio may have declined since 2018 as interest rates have fallen.

  As Hunter Water points out correctly in its response to IPART's draft determination, this may explain why the *forecast* FFO-to-debt ratios for the business has declined—because falling interest rates have driven down the return on equity allowances set by IPART. However, there is no evidence that falling interest rates have lowered the *benchmark* FFO-to-debt ratio. In 2018, IPART set the target FFO-to-debt ratio

[7] IPART, Review of our financeability test, November 2018, pp. 61-62.

[8] IPART, Draft report for Hunter Water, 10 March 2020, p. 134.

[9] IPART, Review of our financeability test, November 2018, p. 61.

for the benchmark test by reference to Moody's target ratio for Ba-rated regulated water utilities as published in Moody's June 2018 Global Rating Methodology for regulated water utilities.[10] Moody's has not revised its Global Rating Methodology for regulated water utilities.

In any event, the suggestion that the target FFO-to-debt ratio *may* have declined cannot be a valid reason for IPART concluding that no financeability problem exists because IPART is explicit that it has not updated the target ratios used in its financeability tests:

> *We did not update our financeability target ratios to reflect this change because our targets are general financial market standards and were the subject of consultation during our financeability review. The target ratios make standard underlying assumptions on asset lives and return on equity. Clearly some of those assumptions do not strictly apply to the present water utility price reviews. However, we see value in retaining the standard targets because they are widely used in financial markets and by ratings agencies. When we next review our financeability test we may consider this issue in more detail.[11]*

- Secondly, IPART suggests that its building block approach for setting regulated prices is designed to ensure that regulated businesses are able to meet their debt obligations and thereby remain financeable.

  Again, as Hunter Water points out correctly in its response to IPART's draft determination, if that were true, there would be no role at all for financeability tests within the regulatory process, since *any* application of a building block method would guarantee the regulated business's financeability. SDP believes this reasoning is flawed. IPART explained during its review of its financeability tests that the purpose of a financeability test is to check whether the regulatory allowances derived using a building block approach are sufficient to ensure the financeability of the business. Hence, simply assuming that application of a building block approach will ensure financeability cannot be a valid reason to dismiss an obvious financeability problem.

Implications for IPART's future application of financeability tests

For the reasons explained above, and elaborated on by Hunter Water in its response to IPART's draft determination, SDP considers that IPART has not applied the financeability test framework it developed in 2018.

This is concerning to SDP because, as explained above, SDP (and other stakeholders) considered that the improvements to the financeability framework introduced by IPART in 2018 served to enhance the transparency, predictability and replicability of the regulatory framework. Transparency, predictability and replicability are considerations that are given considerable weight by investors when considering whether they should commit capital to businesses regulated by IPART. As IPART has itself acknowledged previously:

> *… regulatory stability is an important influence on the credit ratings of Australian water utilities. Moody's rating agency's 'Regulated Water Utilities' methodology assigns a 15% weight to 'stability and predictability of regulatory environment'.[12]*

Transparency, predictability and replicability are particularly important for businesses such as SDP that rely on private capital investment. Hence, SDP is concerned that IPART has departed materially from its 2018 financeability test methodology, and considers that this could adversely impact the integrity of the regulatory framework.

Moreover, ensuring that regulated businesses remain financially viable is also clearly in the long-run interests of consumers.

SDP therefore urges IPART to reconsider how it has interpreted the results of its financeability tests in the recent draft determinations, and to ensure that the test is applied in accordance with the approach that IPART adopted in its 2018 financeability test review.

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[10] IPART, Review of our financeability test, November 2018, p. 53.

[11] IPART, Draft report for Hunter Water, 10 March 2020, p. 134.

[12] IPART, Review of our WACC method, Final report, February 2018, p. 15.

Next steps

Given the importance of the issues raised in this submission, we would welcome discussions with IPART about how to address in particular the inflation issue in the near term (through the interim solution outlined above), but also through a review of the inflation aspects of the WACC method over the next 12 months (and prior to SDP's next regulatory review).

Please direct any correspondence regarding our submission to [redacted].

Yours sincerely,

[redacted]

Phil Narezzi
Chief Executive Officer
Sydney Desalination Plant Pty Limited