Sydney WATER

12 May 2020

Ms Liz Livingstone Chief Executive Officer Independent Pricing and Regulatory Tribunal PO Box K35 Haymarket Post Shop SYDNEY NSW 1240

By email:

Dear Liz

### Sydney Water 2020 Price Determination

I am writing to you about two matters which are of considerable concern to Sydney Water in relation to our Determination. These matters are critical to customer outcomes from this review. They featured prominently in our 27 April submission and other recent meetings between our teams, including the meeting on 15 April. I know you are aware of these matters. As you consider your recommendations to the Tribunal, I want to be clear about the need to resolve these matters to safeguard Sydney Water's operations and secure an appropriate, market-based return to shareholders. I also want to convey the seriousness with which our Board views these matters.

#### The Atkins approach to the efficiency assessment

I attach Sydney Water's presentation to IPART on 4 May 2020 relating to the Review of IPART/Atkins Efficiency Assessment prepared by NERA Economic Consulting for Sydney Water. The full NERA report is attached to our 27 April submission (Attachment 1). This is our second NERA submission on this subject, following a first NERA report submitted to IPART on 15 January in our response to the draft Atkins report (Appendix 2).

Our response and the NERA reports highlight that the Atkins approach is fundamentally flawed and leads to the identification of more cost reductions than would be the case if a consistent methodology was applied. This is combined with a lack of transparency in Atkins's findings. For example, the benchmarking with UK companies is impossible to replicate. It is not clear what cost driver information was available to Atkins for Sydney Water that would have enabled it to complete the benchmarking given that Ofwat benchmarking is highly data intensive.

What is clear is that many cost categories are simultaneously targeted for both top-down and bottom-up cost reductions. This necessarily implies that Atkins's proposed cuts double-count potential efficiency savings. IPART supported Atkins's assessment in the Draft Determination. Despite the lack of transparency and clarity from Atkins, it is also clear that the large majority of the proposed expenditure disallowances are not reductions in the scope of what Sydney Water Sydney Water Corporation ABN 49 776 225 038



must deliver. In other words, Atkins is saying we must deliver those same outputs with less resource. For most of those outputs, the extent of that lower resource is determined by:

- both the program-specific, bottom-up reduction that Atkins has made; and
- the share of the top-down efficiency savings at company level that each individual program must also bear.

I acknowledge that, in the time available and given the nature of the concerns, undertaking a new detailed efficiency review is not possible or desirable. Equally, adhering to the deficient approach of a consultant is not acceptable. While not in any way resiling from our concerns with the approach, Sydney Water's pragmatic suggestion to address the issue is for IPART to reinstate the \$124m<sup>1</sup> of environmental capex reductions, the \$70m of cuts to essential reactive opex maintenance and all the other reductions where IPART is not convinced that what it proposes to apply is a reduction in the scope of the work that we need to deliver. This should be a specific lens through which IPART reviews all the concerns we have raised regarding cost disallowances.<sup>2</sup> This is in addition to consideration of whether, even where scope cuts are proposed, they are appropriate and reasonable, given our obligations to meet the requirements of the EPA and our Operating Licence, including to meet the demands of new customers that require services.

Where IPART believes we need to deliver programs more efficiently, IPART should address it through the (top-down) continuing and catch-up efficiency savings that it has applied. These total, in the IPART proposal, \$170m for continuing efficiency,<sup>3</sup> and \$104m of opex savings offered by Sydney Water that Atkins ascribes to catch-up efficiency. These savings are in addition to the catch-up and continuing efficiency embedded by Sydney Water in the development of the capital program that Atkins recognises as comparing well to industry peers.

#### The IPART Inflation forecast

Sydney Water is exposed to the risk that IPART's inflation forecast does not reflect actual inflation outcomes, which penalises us when inflation outturns at a lower rate than the 2.3%. We estimate this risk has already cost us \$300m in the current price period and could cost us more than \$1bn in the next. The reality is that IPART's inflation forecast for the cost of capital formula cannot now be justified. It is materially above any reasonable expectation of inflation over the next four years.<sup>4</sup> To proceed without addressing this situation introduces regulatory error and puts the efficient return due to our shareholder at unnecessary risk.

As we have outlined in our submission to IPART, this creates a risk to Sydney Water's financial stability, which we further outlined in a meeting with your team on 30 April. We have also

<sup>&</sup>lt;sup>1</sup> \$124m of the \$143m of environmental capex that we request to be reinstated in our plan in our 27 April submission is specifically disallowed on the basis that we can deliver the same outputs more efficiently, with no change in scope. Atkins disallows \$124m despite finding that our capital investment process is mature and that we do not merit a capital expenditure catch-up efficiency factor. Despite recognising this mature process, Atkins also applies a continuing efficiency reduction of \$88m across the whole program.
<sup>2</sup> IPART is obliged to make evidence-based decisions. It has no basis for disallowing our estimated costs when it has neither identified potential unit cost reductions or a potential reduction in the scope of work we need to deliver. In such circumstances, it should allow Sydney Water to recover its estimated costs.

<sup>&</sup>lt;sup>3</sup> The continuing efficiency savings proposed by IPART, based on a 0.8% efficiency factor, are overstated and out of line with evidence about Australian productivity growth, as set out in our 27 April submission.

<sup>&</sup>lt;sup>4</sup> RBA's 11 May Statement on Monetary Policy states that it expects inflation to be 2.75% in June 2021, but this is clearly presented as a blip in response to inflation rebounding from -1% in June 2020, before resuming at an expected rate of around 1% from there onwards. The RBA also reports that market sentiment is now that inflation will be at even lower levels than was previously expected.



commissioned a paper from Frontier Economics, which I attach here, which elaborates on our concerns. Frontier Economics explain how the Draft Determination does not correctly apply IPART's financeability policy in determining that IPART's proposed prices make Sydney Water financeable. It also demonstrates how our proposed inflation solution significantly improves our financeability.

These are extraordinary times. Other economic regulators have taken action to address the shortfall that can arise from the inflation forecast.<sup>5</sup> The AER has delayed finalising electricity network reviews and it has launched a review of its inflation methodology. IPART also now needs to respond. We propose in our submission an interim resolution that mitigates the financial risk to our shareholders.

#### Impact on Sydney Water

A failure to address these issues will lead to a Determination that will not be consistent with the legislated requirements for the Tribunal to take into account the cost of the services provided and the appropriate rate of return on public sector assets, including the appropriate payment of dividends to our shareholders for the benefit of the people of New South Wales. It will also set an adverse regulatory precedent for future determinations.

In such circumstances, the Sydney Water Board will have to consider all the options available to it to address these issues and the significant impacts for Sydney Water, its customers and its shareholders.

Please contact me if you wish to discuss these matters further.

Yours sincerely

Roch Cheroux Managing Director

Encl:

- *Review of IPART/Atkins Efficiency Assessment* prepared by NERA Economic Consulting (for Sydney Water)
- Impact of IPART's Draft Determination on Sydney Water's Financeability prepared by Frontier Economics (for Sydney Water)

Sydney Water Corporation ABN 49 776 225 038 1 Smith St Parramatta 2150 | PO Box 399 Parramatta 2124 | DX 14 Sydney | T 13 20 92 | www.sydneywater.com.au Delivering essential and sustainable water services for the benefit of the community

<sup>&</sup>lt;sup>5</sup> See Attachment 2 to our 27 April submission. Attachment 2: "Inflation forecasting and the recovery of efficient debt costs" NERA





### REVIEW OF IPART/ATKINS EFFICIENCY ASSESSMENT PREPARED FOR SYDNEY WATER

4 MAY 2020

George Anstey Director Edward Mills Consultant

London/Sydney

Insight in Economics<sup>™</sup>

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## Atkins's approach to assessing efficient costs suffers from methodological flaws that limit its usefulness for IPART's review

### 1. Lack of a Theoretical Framework (and/or Lack of Application)

- Proposed cost disallowances must be Mutually Exclusive and Collectively Exhaustive (MECE) if they are to reflect efficient costs accurately;
- There are three potential MECE sources of efficiency savings (catch-up, frontier-shift, changes in *measured* outputs);
- Atkins's method combines top-down and bottom-up approaches for the same categories of costs and applies scope adjustments for unmeasured outputs: It therefore fails the test of mutual exclusivity and double-counts efficiency savings.

### 2. Lack of Transparency

- Atkins relies throughout on methods which are not replicable and does not provide the evidence or results of its analysis (e.g. benchmarking).
- In practice, it is far from clear that Atkins could have conducted the benchmarking described against E&W companies in any reasonable way because:
  - Ofwat uses botex benchmarking and Atkins assesses catch-up efficiency for opex alone
  - Ofwat's benchmarking is data intensive and requires careful analysis of cost drivers not all of which would be readily or transparently available for Sydney Water

### 3. Lack of Evidence

- Atkins has either not collated evidence on key categories of cost disallowances or fails to present it.
- The level of Frontier-Shift assumed is not supported by the evidence from the Australian economy;
- Atkins presents no evidence that 'scope'/bottom-up adjustments account for reductions in measured outputs (e.g. 18% cut in critical sewers and wet weather outflows capex programme)

1 Lack of a Theoretical Framework:Double-Counting in Atkins'sAssessment

Atkins's bottom-up and top-down challenges are \$657 million in total but overlap with one another and constitute top-down savings



In principle, some scope adjustments may be legitimate because they affect measured outputs: Atkins's scope adjustments, however, overlap by addressing the alleged inefficiency of specific programmes and/or the production of interim outputs

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# Atkins argues that its analysis does not double-count, yet its rebuttal is more confusing than enlightening

### **Quotation from Atkins's rebuttal**

"Our adjustments are independent and we do not double count. Our adjustments for prudent expenditure 4 are against the 'prudency test' where costs may not be necessary or appropriate to meet licence requirements. For example, additional funding of the City Planning work. We do not have the data to carry out econometric modelling to assess the efficient level of TOTEX for Sydney Water that Ofwat applies. This is their [sic] first cost normalisation analysis which it carries out. We have however compared Sydney Water's costs, after adjustments, with the econometric models and we report on this in later sections. Ofwat also applies a 'deep dive' review of large projects or areas of expenditure where it considers costs may be unclear or overstated. Our approach is consistent with Ofwat. Using the term 'bottom up' is not appropriate. The adjustments are for prudence and efficiency and there is no double counting."



### **NERA Comment**

"Prudence" is only a separable category of cost cutting from catch-up and frontier shift if *measured* outputs fall.

Atkins contradicts itself not merely in this para, but also elsewhere in the report: "We also benchmarked Sydney Water against the econometric models currently used by Ofwat in England and Wales to determine efficient base totex. [...] the extent of catch-up efficiency is similar to the [\$104 million of] efficiency proposals included in the submission."

Incorrect. Ofwat applies *either* "top-down" or "bottom-up" cost assessment for each individual category of cost (or a weighted-average). It does not add top-down and bottom-up efficiencies for the same cost category (see subsequent slide)

Atkins's estimates are necessarily either top-down or bottom-up.

Because Atkins has not described its benchmarking, it is impossible to identify fully which of its bottom up adjustments represent double-counts

# Atkins's method systematically double-counts "catch-up" efficiency, which it assesses top-down, and "scope" efficiencies, which it assesses bottom-up



### Example of double-counting of operating-cost disallowances

- Atkins asserts that Sydney Water's proposed cuts of \$104 million were equal to its own estimate of catch-up (based on benchmarking using Ofwat's models in England and Wales);
- In other words, Atkins states that the gap between Sydney Water's costs and the efficient frontier is \$104 million;
- It also imposes cuts to Sydney Water's allowances to reflect changes in "scope" (and frontier shift);
- Estimating the efficient frontier (econometrically or qualitatively) is equivalent to estimating the efficient unit costs of measured outputs (i.e. those controlled for in the explicit or implicit model for estimating costs);
- No further cost reduction is achievable *per se* without a reduction in measured outputs, and must be doublecounting;
- For instance, Ofwat uses number of connected properties as an output variable. If Atkins had strong evidence that Sydney Water had mis-forecast the volume of connected properties, it would be reasonable to adjust its total costs;
- Instead, Atkins imposes scope reductions for interim outputs such as mains maintenance, which do not feature in Ofwat's models.

### Atkins also double-counts "frontier" efficiency with its bottom-up "scope" efficiencies



A simplified example showing frontier shift and scope

reductions for a firm producing a single output

### Explanation of double-counting of frontier-shift

- Atkins recommends a frontier-shift parameter based on Multi-Factor Productivity (MFP) growth in the general economy;
- MFP growth measures the change in a value-weighted index of *measured* outputs relative to a value-weighted index of inputs;
- For instance, the frontier water company may be able to reduce its required inputs (labour, capital) to deliver its outputs (e.g. customers served, water provided) if it innovates by identifying methods of delivering the same service with less mains replacement;
- MFP is an average measure across all measured inputs and outputs: Atkins presents no evidence that Sydney Water should deliver economy-wide frontier shift on all cost categories *plus* further efficiency gains in subcategories of costs (in addition to catch-up efficiencies);
- Applying a frontier shift estimate *and* a scope adjustment for mains replacement therefore assumes that Sydney Water could deliver economy-beating frontier shift (which Atkins does not substantiate) or constitute doublecounting.

Given the dangers of double-counting cost reduction, Ofwat uses *either* bottom-up or top-down methods (or a weighted-average) for assessing different categories of costs

### Ofwat's approach to assessing total expenditure at PR19



- Econometric benchmarking of ٠ historical costs to assess scope for catch-up efficiency
  - Ofwat forecast companies costs using model coefficients and modelled cost drivers
  - Combination of models at different levels of aggregation to form a "triangulated" view of catch-up efficiency
- Sector-wide assessment for scope ٠ of frontier shift, net effect of productivity growth and real input price pressure (RPEs), to update historical costs for each year

Includes abstraction charges and ٠ business rates, for which Ofwat conducts a bottom-up assessment.

Applies frontier shift estimate (see left panel).

Efficient Enhancement Costs

- Ofwat acknowledges that enhancement activities are generally bespoke and requirements over next 5 years are not the same across companies
- Relies on bottom-up category-by-٠ category assessment of costs
  - Comparative benchmarking of forecast costs, using volume of work cost drivers
  - Expert judgement and 'shallow dive' review of companies' submissions used for other categories of cost

By contrast, Atkins *adds* cost savings from top-down and bottom-up analyses

# Many of Atkins bottom-up adjustments to operating costs do not represent reductions in the scope of measured outputs and therefore constitute double-counting

Saving Name	Amount (\$m)	Description	Catch- up?	Frontier- Shift?	NERA Comment
Drought resilience	\$19.8	Opex for Pro-Mac Pipeline			Arguably reduction in measured outputs
Water maintenance	\$40.0	Response times to leakage	Х		Atkins states SW behind "frontier firms"
Wastewater maintenance	\$30.0	More effective asset management	~	~	Unclear whether catch-up or frontier shift
BOO Water treatment	\$7.7	Disagreement about volume and discolouration of water	~		Catch-up if not controlled for in benchmarking
Electricity	\$4.2	Increased use of renewables		Х	"stretched renewables target" to be set
City Planning	\$16.0	Assumed elapses from 2022	~		Degree of overlap unclear
Water comms and advertising	\$20.0	Costs may depend on degree of drought	~		Degree of overlap unclear – mitigated by pass-through
Infrastructure resilience	\$8.0	Debate over whether activity was incremental	Х		Assuming benchmarked opex includes programme
Total	\$145.8				

For *capex*, adding Frontier Shift double-counts with internal efficiency challenges and "scope" adjustments because Sydney Water's Business Plan contains its (total) forward-looking costs

### 2 Lack of Evidence on the Level of Frontier Shift

## IPART adopts a frontier-shift estimate of 0.8 per cent, although the evidence suggests that it is at the upper end of the range of likely efficiency growth

- Whether the 0.8 per cent figure is an IPART or Atkins recommendation is not entirely clear.
- IPART advocates relying most heavily on the economywide data for Australia (stated to be 0.6-0.8 per cent) and justifies picking the higher end of the range in order to identify the performance of frontier firms. Atkins also cites Ofwat's consultants views and Ofwat precedent.
- IPART's decision may overstate the likely productivity growth that Sydney Water can achieve:
  - The source cited in the IPART decision (see right) suggests that MFP is 0.7 per cent for Australia over the long term (and lower in the most recent business cycle);
  - IPART adopts the upper end of the range it identifies for the whole economy;
  - The apparently "best performing" sectors are those most likely to suffer from measurement error;
  - Frontier firms may have slower growth than average if catchup is systematic;
  - Recent productivity growth has been lower and current economic conditions may suppress future growth; and
  - Comparisons with England and Wales are partial, for instance, because Ofwat also takes account of Real Price Effects.

Table 1     Aggregate productivity statistics <sup>a</sup> Per cent								
	Long-term growth rate	Last complete cycle	Period since the last cycle	Latest years		3		
	1974-75 to 2017-18	2003-04 to 2011-12	2011-12 to 2017-18	2015-16	2016-17	2017-18		
Economy								
Output (GDP)	3.1	2.9	2.6	2.8	2.3	2.8		
Output (GVA)	3.1	3.1	2.6	2.6	2.3	2.7		
Inputs	2.4	3.1	1.9	1.8	1.6	2.3		
Labour inputs	1.4	1.9	1.3	1.7	1.4	2.6		
Capital inputs	4.0	4.6	2.6	1.9	2.0	1.9		
Labour productivity	1.7	1.1	1.2	0.9	0.9	0.2		
Capital-labour ratio	2.6	2.6	1.3	0.2	0.5	-0.6		
Capital deepening	1.0	1.1	0.5	0.1	0.2	-0.3		
MFP	0.7	0.0	0.7	0.8	0.7	0.4		

Figure 1.6

6 Multifactor productivity rates are entering the doldrums again Annual growth rates, 1975-76 to 2017-18 (per cent)<sup>a</sup>



<sup>&</sup>lt;sup>a</sup> Multifactor productivity based on GVA.

# 4 Conclusions

## The flaws in Atkins's approach may result in Sydney Water being unable to recover its efficient costs by tens of millions of dollars (or more)

- The IPART decision reduces Sydney Water's allowance by \$657 million.
  - Atkins's recommendations are not sufficiently transparent that it is possible to identify what proportion of this disallowance constitutes double-counting; but
  - If even a small proportion were double-counting, Sydney Water would under-recover its efficient costs by tens of millions of dollars.
- Top-down adjustments and bottom-up adjustments are substitutes not *additive* complements. To remove double-counting, IPART/Atkins would need to apply:
  - A consistent set of either top-down or bottom-up efficiency assessment for each category of costs; or
  - A weighted average of top-down and bottom-up methods.
- Without redoing the efficiency review in detail, one potential solution would be to:
  - Impose either top-down or bottom-up adjustments only for opex (i.e. increase Sydney Water's allowance by \$146 or \$104m – although overlap with frontier shift would remain with the latter strategy); and
  - Remove the frontier-shift estimate from the capex programme (i.e. increase Sydney Water's allowance by \$82 million).
- Estimating frontier-shift is innately challenging, however IPART's existing decision is at the upper end of the range of historical evidence.
- Adopting a lower frontier shift estimate of 0.7 per cent, consistent with average productivity growth in the Australian economy, would increase Sydney Water's allowances by \$21 million.

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### IMPACT OF IPART'S DRAFT DETERMINATION ON SYDNEY WATER'S FINANCEABILITY

REPORT PREPARED FOR SYDNEY WATER

8 MAY 2020

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### Background

In its response to IPART's draft determination on Sydney Water's prices for the 2020-24 regulatory period, Sydney Water has explained that IPART's existing approach to forecasting inflation would, in the current market conditions, likely impose material and permanent under-recovery of efficient returns on Sydney Water. This report explains that:

- The inflation forecast of 2.3% p.a. adopted by IPART in the draft determination is likely to be contributing to a financeability problem that would be faced by Sydney Water over the forthcoming regulatory period; and
- Adopting a more realistic inflation would improve Sydney Water's financeability.

### The problem identified by Sydney Water

IPART's existing regulatory framework is to set a return on capital allowance for regulated businesses to allow those businesses to attract the equity and debt capital they require in order to finance efficient investments.

IPART's approach is to first estimate an efficient nominal return on capital and to then deduct a forecast of inflation over the regulatory period, leaving a real return on capital that is recovered via the allowed revenue each year. IPART adopts this approach because it increases the regulatory asset base for observed inflation over the course of each regulatory period. That is, IPART deducts its forecast of the benefit that investors will obtain from that RAB indexation – to avoid double counting of that benefit.

This approach works well when the regulatory forecast of the benefit that investors might obtain from RAB indexation aligns with the reasonable expectations of those investors themselves.

However, in its draft decision for Sydney Water, IPART proposed an inflation forecast of 2.3% p.a. which is materially above any reasonable expectation of inflation over the next four years. In this case, the deduction for IPART's forecast of the benefit of RAB indexation is materially higher than any reasonable expectation of that benefit, in which case Sydney Water will be under-compensated, and consumers will underpay relative to the efficient cost of providing the regulated service.

Indeed, the level of under-compensation is such that Sydney Water is scheduled to fail IPART's financeability test in every year of the forthcoming regulatory period.

Symmetrically, in other market conditions the regulatory forecast of inflation may be set below reasonable market expectations. In that case, Sydney Water would be over-compensated and consumers would overpay relative to the efficient cost of the service.

### **Potential solutions**

The simplest and most direct solution is for IPART to adopt a regulatory forecast of inflation that coincides with reasonable market expectations of inflation over the regulatory period. Sydney Water's submission sets out a range of evidence to establish that, on any reasonable view, there is currently no realistic expectation of inflation averaging 2.3% p.a. over the next four years.

The Sydney Water submission also contemplates the scenario where IPART considers that it is unable to fully develop a robust new approach to inflation for the forthcoming regulatory period – because that would require detailed analysis and a comprehensive consultation process. Sydney Water has proposed that, in such a scenario, IPART should:

 Set the allowed revenues over the 2020-24 regulatory period to reflect a 'notional' inflation forecast of 1.7%; and

- Apply a true-up for the difference between:
  - o the notional revenue requirement based on 1.7% inflation; and
  - o the notional revenue requirement based on actual outturn inflation.

In this case, the 1.7% is a notional inflation forecast that has no impact on the NPV of regulatory allowances because regulatory allowances will ultimately be trued up to reflect actual inflation over the forthcoming regulatory period. The 1.7% figure is a 'compromise' figure that is above the inflation expectations that are embedded into the market prices of traded securities, but lower than IPART's current forecast of 2.3%. This notional figure has three benefits:

- Because it is closer to being a reasonable estimate of expected inflation over the next four years, it
  will result in allowed revenues being closer to covering the efficient cost of providing the service;
- It will reduce the size of the true-up that would be required in this scenario; and
- Financeability concerns are eased somewhat by increasing the allowed revenue towards being closer to covering the efficient cost of providing the service.

We understand that during an IPART CEO meeting with Sydney Water on 15 April 2020, IPART suggested that increasing the regulatory allowance for the 2020-24 regulatory period would be more compelling if Sydney Water faced a demonstrable financeability problem. As such, we understand that IPART has indicated that it would welcome evidence that Sydney Water would face a financeability concern under IPART's draft determination. Sydney Water has provided this evidence both in its 27 April response to IPART's draft determination and in a further meeting with the Secretariat on 30 April 2020.

However, even without this evidence, it is clear from IPART's own financeability test and from the financeability policy it has set out in its published documents, that the key financial metrics set out by IPART in the draft determination show that Sydney Water fails the test based on the draft prices proposed by IPART. This is contrary to IPART's statements in the draft determination.

### A demonstrable financeability problem

IPART's own analysis shows that, under IPART's draft determination, Sydney Water fails the benchmark financeability test in every year of the forthcoming regulatory period in respect of the FFO-to-debt ratio. That is, Sydney Water's FFO-to-debt ratio falls materially below the target ratio of 7% set by IPART (in its 2018 financeability framework review) in every year of the 2020-24 regulatory period – see **Table 1** below. This means that the allowed cash flows are insufficient to support even the sub-investment grade credit rating that requires the 7% ratio.

#### Table 1: Results of IPART financeability test for Sydney Water

#### **Non-drought prices**

Financial year	2019-20	2020-21	2021-22	2022-23	2023-24
Interest cover					
Benchmark test	2.7	4.3	4.2	4.3	4.3
- Does it meet the target?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Actual test	2.8	2.7	2.6	2.7	2.5
- Does it meet the target?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
FFO over debt					
Benchmark test	6.8%	6.6%	6.4%	6.6%	6.7%
- Does it meet the target?	×	×	×	×	×
Actual test	6.7%	5.9%	5.6%	5.7%	5.5%
- Does it meet the target?	×	×	×	×	×
Gearing					
Benchmark test	60%	60%	60%	60%	60%
- Does it meet the target?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Actual test	50%	55%	56%	56%	56%
- Does it meet the target?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

#### **Drought prices**

Financial year	2019-20	2020-21	2021-22	2022-23	2023-24
Interest cover					
Benchmark test	2.7	4.3	4.2	4.3	4.4
- Does it meet the target?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Actual test	2.8	2.7	2.6	2.7	2.5
- Does it meet the target?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
FFO over debt					
Benchmark test	6.8%	6.6%	6.4%	6.6%	6.7%
- Does it meet the target?	×	×	×	×	×
Actual test	6.7%	5.9%	5.6%	5.7%	5.6%
- Does it meet the target?	×	×	×	×	×
Gearing					
Benchmark test	60%	60%	60%	60%	60%
- Does it meet the target?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Actual test	50%	55%	56%	56%	56%
- Does it meet the target?	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

Source: IPART draft determination for Sydney Water, Tables 14.6 and 14.7, p. 144.

Hunter Water and WaterNSW also fail the benchmark financeability test in every single year of the forthcoming regulatory period, on precisely the same metric—the FFO-to-debt ratio.

However, the draft decision suggests that none of the businesses, including Sydney Water, would face a financeability concern over the forthcoming regulatory period. We have set out in detail, in a report to

Hunter Water, why we think IPART's reasoning and conclusion on this matter are incorrect.<sup>1</sup> We summarise briefly here our views on why we disagree with IPART's reasons for concluding that Sydney Water would face no financeability concern.

The reasoning that IPART has used to arrive at this conclusion for each of the businesses is essentially the same:

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

As we explain in our report to Hunter Water, in 2018, IPART set the target ratios used in its benchmark financeability test in line with the target ratios used by Moody's in its June 2018 Global Rating Methodology for regulated water utilities.<sup>2</sup> There is no evidence that Moody's has revised the benchmark target FFO-to-debt ratio since 2018, as interest rates have declined. Moody's has not updated its Global Rating Methodology for regulated water utilities.

Moreover, IPART is explicit that it has not updated the target ratios used in its financeability tests:<sup>3</sup>

Since February 2018 the permitted return on equity for a water business has reduced from 5.95% to 4.95% in real post-tax terms. This change has reduced the real FFO/net debt ratio by approximately 0.7% between 2018 and 2020.

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. [Emphasis added]

A decline in the target ratio in response to changing market conditions cannot be a valid reason for IPART to conclude that Sydney Water would face no financeability test, since IPART is clear that it has not lowered the target FFO-to-debt ratio used in its financeability tests.

 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. IPART contends that its use of a building block approach to set Sydney Water's prices "ensures that Sydney Water will be able to finance and repay its debt while providing its owners with a market return on equity."<sup>4</sup>

As we explained in our report to Hunter Water, 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. IPART explained during its 2018 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. For example, IPART stated that:<sup>5</sup>

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<sup>&</sup>lt;sup>1</sup> Frontier Economics, IPART's application of financeability tests, 7 April 2020, Appendix A to Hunter Water's response to IPART's draft determination. <u>https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/pricing-reviews-water-services-metro-water-prices-for-hunter-water-corporation-from-1-july-2020/submissions-prices-for-hunter-water-corporation-from-1-july-2020/online-submission-hunter-water-corporation-e.-turner-9-apr-2020-211800000.pdf</u>

<sup>&</sup>lt;sup>2</sup> IPART, Review of our financeability test, November 2018, p. 53.

<sup>&</sup>lt;sup>3</sup> IPART, Review of prices for Sydney Water from 1 July 2020, Draft report, 24 March 2020, p. 143.

<sup>&</sup>lt;sup>4</sup> IPART, Review of prices for Sydney Water from 1 July 2020, Draft report, 24 March 2020, p. 143.

<sup>&</sup>lt;sup>5</sup> IPART, Review of our financeability test, Final Report, November 2018, p. 23.

...conducting the test on the benchmark business would identify any estimation and cash flow impacts arising from our building block approach

Hence, simply assuming that the application of a building block approach will ensure financeability cannot be a valid reason to dismiss a clear financeability problem.

To summarise, in our view, it is clear from IPART's own financeability test results that all of the businesses would face a financeability concern under each of the draft determinations. In Sydney Water's case, the forecast FFO-to-debt ratio falls below the target ratio in every year of the forthcoming regulatory period, and there is no evidence of a material improvement in those forecast ratios over the period.

Moreover, it is clear to us that the source of that problem is a revenue allowance that is insufficient to ensure that a benchmark efficient business could maintain even the sub-investment-grade credit rating that is the basis of the financeability test.<sup>6</sup>

Under the financeability test method developed by IPART in 2018, IPART committed that a failure of the benchmark financeability test would trigger a reassessment of its pricing decision. Specifically, IPART stated that:<sup>7</sup>

...if we judged that the benchmark business faced a financeability concern, we would reassess our pricing decisions and adjust our regulatory settings

Since it is clear from IPART's own analysis that Sydney Water fails the benchmark financeability test, IPART should follow the 2018 financeability test methodology and reassess its pricing decision.

### Source of the financeability problem

The fact that all of the businesses fail on the same metric, the FFO-to-debt ratio, is revealing because it suggests that there is a systemic problem in the regulatory approach adopted by IPART that is affecting the forecast cash flows of all the businesses in a similar way.

IPART has explained that, in the case of a regulated business, the FFO is simply the sum of two things:<sup>8</sup>

- The regulatory depreciation allowance; and
- The real return on equity allowance.

Hence, a business may fail the benchmark financeability test on the FFO-to-debt ratio if the regulatory depreciation allowance and/or the real return on equity allowance has been set insufficiently low for the business to maintain an investment-grade credit rating. IPART effectively sets the real return on equity allowance by deducting its inflation forecast from the nominal return on equity allowance. Hence, an obvious reason why all of the businesses fail the benchmark financeability test would be because IPART has set the real return on equity allowance by deducting too high a forecast of inflation from the nominal WACC estimate.

Increasing the allowed revenues for the 2020-24 regulatory period by adopting a 'notional' inflation figure of 1.7% and truing up relative to observed outturn inflation at the end of the regulatory period (as

<sup>&</sup>lt;sup>6</sup> It is worth noting that the target FFO-to-debt ratio of 7% used by IPART in its benchmark financeability test was set by reference to the target FFO-to-debt ratio range that Moody's uses for Ba-rated firms. (IPART, Review of our financeability test, November 2018, p. 53.) Ba is a sub-investment grade rating. Hence, IPART's benchmark test results suggest that a benchmark efficient business would not even be able to maintain a sub-investment grade Ba rating under IPART's draft determinations.

<sup>&</sup>lt;sup>7</sup> IPART, Review of our financeability test, Final Report, November 2018, p. 58.

<sup>&</sup>lt;sup>8</sup> IPART, Review of our financeability test, November 2018, Appendix B.

suggested by Sydney Water in response to IPART's draft determination) would unambiguously increase the FFO-to-debt ratios of all of the NSW businesses (all else remaining equal), thereby improving the financeability of the businesses. This can be seen in **Table 2** below, which presents the FFO-to-debt ratio (under the benchmark test) for Sydney Water assuming two alternative inflation scenarios (and keeping all other aspects of IPART's draft determination for Sydney Water unchanged):

- IPART adopts an inflation forecast of 2.3% (per the draft determination); and
- IPART adopts an inflation forecast of 1.7% (per Sydney Water's response to the draft determination).

The Table shows that the forecast FFO-to-debt ratio in every year of the forthcoming regulatory period would improve significantly if IPART were to set allowed revenues for the 2020-24 regulatory period using a notional inflation figure of 1.7%.

Under non-drought prices, Sydney Water would still fail the benchmark test, since the forecast FFO-todebt ratio in every year of the forthcoming regulatory period would remain below the minimum ratio of 7%. This underscores how inappropriately high IPART's inflation forecast of 2.3% is because even a 60 basis points reduction in IPART's inflation forecast would be insufficient to ensure the financeability of a benchmark business. Under drought prices, the forecast FFO-to-debt ratio would fall below the target in all but the last year of the regulatory period.

It is evident from **Table 2** that adopting a notional inflation figure of 1.7% for the 2020-24 regulatory period, as proposed by Sydney Water, would make the financeability problem faced by Sydney Water much less severe than would otherwise be the case.

INFLATION SCENARIO	TARGET	2020-21	2021-22	2022-23	2023-24
Inflation forecast = 2.3% (IPART draft determination) Drought and non-drought prices	>7%	6.6%	6.4%	6.6%	6.7%
Inflation forecast = 1.7% (Sydney Water proposal) Drought prices	>7%	6.9%	6.7%	6.9%	7.0%
Inflation forecast = 1.7% (Sydney Water proposal) Non-drought prices	>7%	6.9%	6.7%	6.9%	6.9%

Table 2: FFO-to-debt ratio (benchmark test) under different inflation forecast assumptions

Source: Frontier Economics analysis using IPART pricing model for Sydney Water.

### Conclusion

#### In summary:

IPART has advised Sydney Water that it may be justifiable to apply an inflation true-up and to
increase allowed revenues in the forthcoming regulatory period if Sydney Water were to face a
financeability problem under IPART's draft regulated prices. In this regard, IPART has indicated
that it would be useful if Sydney Water could provide evidence that it would not be financeable
under the IPART draft determination.

- IPART's own modelling shows that Sydney Water faces a financeability problem that needs to be addressed. Specifically, Sydney Water's forecast FFO-to-debt ratio falls materially below the target ratio in every year of the forthcoming regulatory period, under the draft determination. There is no evidence that there would be a material improvement in the forecast FFO-to-debt ratio over the period.
- However, contrary to that evidence, IPART has concluded that Sydney Water would not face a financeability concern. As we have explained above, and in a recent report for Hunter Water, the reasons underpinning IPART's conclusion that Sydney Water does not face a financeability concern are invalid. It is clear that Sydney Water *does* fail IPART's benchmark financeability test.
- Indeed, Hunter Water and WaterNSW also fail the benchmark financeability test, in precisely the same way as Sydney Water – their forecast FFO-to-debt ratios fall well below the target ratio of 7%. This points to a systemic flaw in the regulatory approach that IPART has applied to all three businesses.
- The financeability test framework developed by IPART in 2018 indicates that IPART would
  reassess its pricing decision if a business fails the benchmark financeability test. In our view, the
  reason all of the businesses fail the benchmark test on the FFO-to-debt ratio is because IPART has
  applied an unrealistically high forecast of inflation over the forthcoming regulatory period, 2.3%
  p.a., to set the businesses' WACC allowances. Thus, the allowed returns over the forthcoming
  regulatory period are insufficient to cover the efficient cost of providing the service and this
  manifests as a failure of the financeability test.
- We have shown above that adopting a more realistic inflation forecast (or the implementation of the true-up proposed by Sydney Water, including the advancing of true-up cash flows assuming an inflation forecast of 1.7% p.a.) would improve Sydney Water's financeability significantly.

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