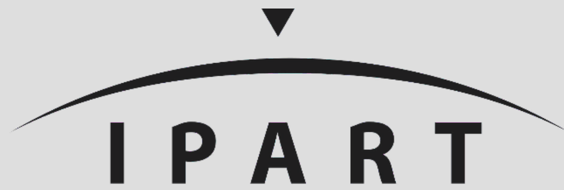

Review of our financeability test

Issues Paper

Research

May 2018

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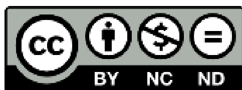

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Invitation for submissions

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

Submissions are due by 1 June 2018

We would prefer to receive them electronically via our online submission form: www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission.

You can also send comments by mail to:

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

Contents

1	**Introduction**	**1**
1.1	Why are we conducting this review?	1
1.2	Who does this review affect?	1
1.3	What is the scope of this review?	2
1.4	How will we conduct this review?	2
1.5	When will our new test take effect?	3
1.6	How is this paper structured?	3
1.7	Our preliminary views and questions	3
2	**Context and proposed approach**	**7**
2.1	How do we conduct our current test?	7
2.2	Objectives for this review	9
2.3	Approach for this review	10
3	**The purpose of the financeability test**	**11**
3.1	Should we conduct a financeability test?	11
3.2	Which businesses should we test?	14
3.3	What should the objectives of the test be?	16
4	**How we implement the test**	**17**
4.1	We propose to conduct the test on actual and benchmark inputs	17
4.2	Should the test be based on the regulated portion of the business?	19
4.3	How should we adjust the inputs for the financeability test?	21
4.4	We propose to focus our financeability assessment on the upcoming regulatory period	24
4.5	We propose to focus on a quantitative assessment of financeability	25
5	**How we assess financeability**	**26**
5.1	What target credit rating should we adopt?	26
5.2	What financial metrics should we calculate?	27
5.3	What benchmark ratios should we adopt?	27
5.4	How do we use the financial ratios to identify a financeability concern?	29
6	**Addressing a financeability concern**	**31**
6.1	How do we identify the source of a financeability concern?	31
6.2	What remedies should we consider?	32
6.3	What process should we follow to address a financeability concern?	33
Appendices		**35**
A	**Comparison with other regulators' approaches to financeability**	**37**

1 Introduction

The Independent Pricing and Regulatory Tribunal of NSW (IPART) is reviewing the financeability test we use as part of our price regulation process. When making our price determinations for regulated businesses, we use a financeability test to assess how our pricing decisions are likely to affect the business's financial sustainability and ability to raise funds to manage its activities, over the regulatory period.

This paper explains the context and purpose of the review, outlines our proposed approach and discusses key issues on which we seek stakeholder comment.

1.1 Why are we conducting this review?

We last updated the financeability test in 2013[1] (the 2013 test) and made small changes in early 2015.[2] In our view, our current financeability test is working well. The test acts as a check on our regulatory decisions and provides us with information to assess the financial sustainability of regulated businesses. Stakeholders can replicate our calculations and financeability test, which contributes to the transparency of our regime for regulated businesses and other stakeholders. We also think how we implement our test supports efficient and prudent financing decisions by regulated businesses.

Nevertheless, we may be able to improve the test to better assess the impact of our pricing decisions on financial sustainability. We will make improvements that are feasible and likely to deliver a clear net benefit.

1.2 Who does this review affect?

In general, we apply our financeability test when we use our 'building block' approach to determine revenue and set prices for regulated businesses. These businesses include water utilities such as WaterNSW, the Sydney Desalination Plant, Sydney Water and Hunter Water.

Other affected businesses could include those we review under section 9 of the *Independent Pricing and Regulatory Tribunal Act 1992* (IPART Act), such as the Port Authority of NSW, for which we recently recommended port site occupation charges.

Table 3.1 (in Section 3.2 of this paper) lists the price reviews where we have (and have not) applied the 2013 test.

The results of the test assist us in making regulatory decisions, but we would not use these results to increase prices on average. Additionally, only in specific circumstances would we

1 IPART, *Financeability tests in price regulation – Final Decision*, December 2013.
2 IPART, *Fact Sheet, Final Decision – Financeability ratios*, April 2015.

make changes that affect prices. As such, the financeability test would not normally have a major impact on the customers of our regulated businesses.

1.3 What is the scope of this review?

This review will focus on how we calculate and test the financeability of the regulated business. We propose to:

- consider the objective of the financeability test and whether it is achieved
- examine the inputs we use to conduct our test; in particular, whether we should use inputs that represent a benchmark efficient business and/or the regulated business's actual inputs
- study potential improvements to our financial metrics and financial ratio benchmarks, and
- consider the process and framework for identifying and addressing a financeability problem.

We do not propose to consider broader policy issues relating to how we conduct our building block approach as part of this review; for example, the approach of setting a real weighted average cost of capital (WACC) and indexing the asset base for inflation is outside the scope of this review.

1.4 How will we conduct this review?

Like our price reviews, we propose to conduct public consultation as well as research and analysis. This Issues Paper is the first step in our review process. It sets out the key issues and our preliminary views, and seeks comment from stakeholders.

We will hold a public round table to discuss this Issues Paper on **Tuesday, 22 May 2018**. We will publish further information about the round table on our website, and members of the public can register an interest in attending. We also invite interested parties to submit written responses to this paper by **Friday, 1 June 2018**. Information on how to make a submission can be found on page iii of this Issues Paper.

We will continue to consult with stakeholders throughout the review, and propose to:

- release a Draft Report that explains our draft decisions and invites stakeholder submissions, and
- consider all stakeholder feedback and undertake further analysis before making our final decisions.

Table 1.1 provides an indicative timetable for our review.

Table 1.1 Indicative timetable for this review

Date	Actions proposed
1 May 2018	Release Issues Paper
22 May 2018	Round table session
1 June 2018	Deadline for submissions to Issues Paper
August 2018	Release Draft Report
September 2018	Deadline for submissions to Draft Report
November 2018	Release Final Report

1.5 When will our new test take effect?

Our new financeability test will apply to pricing decisions that take effect **on or after 1 July 2019**.

We intend to use the new financeability test for the 2019 determinations of prices for Central Coast Council, WaterNSW (Broken Hill) and Essential Energy (Water), unless there is a strong argument against using the new test.

1.6 How is this paper structured?

The rest of this paper discusses the review in more detail.

- **Chapter 2** outlines the context of and our proposed approach to this review.
- **Chapter 3** discusses the purpose of the financeability test.
- **Chapter 4** focuses on how we implement the test, including whether to use benchmark and/or actual inputs; the appropriate time horizon for our analysis; and whether we restrict our analysis to the regulated portion of the business.
- **Chapter 5** explores how we assess financeability, including which financial metrics we should use and the benchmarks for those metrics.
- **Chapter 6** looks at how we address a financeability concern; in particular, the process we use to identify a concern and the remedies we could consider.

Each chapter outlines our initial analysis, the changes we propose to consider, our preliminary views (where we have them) and the questions we would like stakeholders to comment on. Where we have a preliminary view, the chapter also sets out why we formed that view. Whether or not we have a preliminary view, we will consider the merits of the arguments put to us when reaching a decision.

1.7 Our preliminary views and questions

For convenience, the following is a list of our preliminary views and our questions for stakeholders.

1.7.1 Preliminary views

How we implement the test		Page no.
1	That we should conduct two separate financeability tests, using inputs for a benchmark efficient business and for the actual business.	19
2	That as a default, we should conduct the financeability test on the portion of the business for which we are setting prices. If we conduct the test using the business's actual inputs, we should consider on a case-by-case basis whether to conduct the test using financial data for the whole business.	20
3	That we should calculate the real cost of debt in the financeability test, to match the WACC.	23
4	That our approach to estimate tax payments in the 2013 test remains reasonable.	23
5	That we should continue to assess a business's financeability over the upcoming regulatory period.	24
6	That we should continue to use quantitative data to assess a business's financeability.	25
How we assess financeability		
7	To continue to use a BBB target credit rating across all industries.	26
8	That we should continue to rank our financial ratios in order of importance, placing more emphasis on the FFO interest coverage and the debt to RAB ratios than on the FFO to debt ratio.	30
Addressing a financeability concern		
9	That the remedy applied to address a financeability concern should depend on the source of the concern.	33
10	That if the source of a concern is due to regulatory error, we should correct the regulatory error.	33
11	That if the source of a concern is due to imprudent or inefficient business decisions, we should alert the business's owners to the potential need to inject more equity, accept a lower rate of return on equity, or both.	33
12	That if the source of a concern is due to temporary cash flow problems, we should consider adjusting prices in a way that is neutral to the business in present value terms. This adjustment should be limited to the upcoming regulatory period.	33

1.7.2 Questions on which we seek comment

Context and proposed approach		Page no.
1	Do you agree with our guiding objectives for the review? Are there other objectives we should consider?	9
The purpose of the financeability test		
2	Do you agree that we should continue to conduct financeability tests?	14
3	Do you agree with the criteria in the 2013 test that we used to decide whether to conduct the financeability test for a specific business? Are there other criteria we should consider?	15
4	Have we have applied the financeability test to the appropriate price reviews since the 2013 financeability review?	15
5	Do you agree with our proposed objectives for the financeability test?	16
How we implement the test		
6	Do you agree with our preliminary view that we should conduct separate financeability tests, using inputs for a benchmark efficient business and for the actual business?	19
7	Do you agree with our preliminary position that as a default, we should conduct the financeability test on the portion of the business for which we set prices?	20
8	Do you agree that we should consider on a case-by-case basis whether to conduct the test using financial data for the whole business?	20
9	Do you agree with the adjustments we make for lease expenses and pension benefits?	22
10	Should we consider any other adjustments to the inputs we use to calculate our financial metrics?	22
11	Do you agree with our preliminary view that we should calculate a real cost of debt in the financeability test?	24
12	Do you agree with our preliminary view that our approach to estimating tax payments in the 2013 test remains reasonable? Are there changes we should consider to the way we calculate tax payments in the financeability test?	24
13	Do you agree with our preliminary view that we should continue to assess a business's financeability over the upcoming regulatory period?	24
14	Do you agree with our preliminary view that we should continue to use quantitative data to assess a business's financeability?	25

How we assess financeability

15	Do you agree with our preliminary view to continue to use a BBB target credit rating across all industries?	27
16	Do you think the current metrics are appropriate?	27
17	Are there any additional metrics we should use, and if so why?	27
18	How should we refine the benchmark ratios for our financial metrics?	28
19	Should we rank our financial ratios or adopt a weighting? If you think a ranking is appropriate, are there any improvements we can make to our current rankings?	30
20	Should we set out a step-by-step decision process to assess if a financeability problem exists?	30
21	Are there any other factors we should consider when we analyse the financial ratios?	30

Addressing a financeability concern

22	Do you think the three stages we have proposed to conduct the financeability test would identify whether a financeability concern is due to:	32
	– setting the regulatory allowance too low	32
	– the business taking imprudent or inefficient decisions, and/or	32
	– the timing of cash flows?	32
23	Does our proposed financeability test capture the relevant temporary cash flow problems that might require a timing adjustment to regulated income?	32
24	Do you agree that our proposed remedies to address a financeability concern are appropriate?	33
25	Are there other remedies that we should consider, and in what circumstances might it be appropriate to apply these remedies?	33
26	Do you think that any NPV-neutral adjustments to prices should be limited to the upcoming regulatory period?	33
27	Is our proposed process for addressing a financeability concern workable and reasonable?	34

2 Context and proposed approach

In our view, our financeability test is working well. We are generally satisfied that it has effectively assessed the impact of our pricing decisions on the short-term financial sustainability of regulated businesses. Stakeholders can replicate our calculations and financeability test, which contributes to the transparency of our regime for regulated businesses. We also think how we implement our test supports efficient and prudent financing decisions by regulated businesses.

This review aims to identify opportunities to make improvements to the test. We will make improvements that are feasible and are likely to produce a clear net benefit.

We have developed a proposed approach for this review, including its objectives, to guide our decision making.

2.1 How do we conduct our current test?

We reviewed our financeability test in 2013 and fine-tuned how we calculate our financial ratios in 2015. Box 2.1 summarises our previous reviews of the test, starting in 2011.

Box 2.1 Changes to our financeability test

We conducted the first review of our financeability test in January 2011. In that review, we decided that if we identified a financeability concern that could not be addressed by the business's managers and shareholders, we would set the WACC above its midpoint or include an additional allowance in the annual revenue requirement.

In December 2013, we conducted our most recent review. It established the financial metrics we would consider, how to calculate those metrics (including adjustments) and the benchmarks for comparing those financial ratios. As a key change, we decided that if we identified a financeability concern, we would consider making a neutral net present value (NPV) adjustment to our pricing decision.

In April 2015, we released a fact sheet detailing relatively minor updates to how we calculate the financial ratios.

Source: IPART, *Financeability tests and their role in price regulation – Final Decision*, January 2011; IPART, *Financeability tests in price regulation – Final Decision*, December 2013; IPART, *Fact Sheet, Final Decision – Financeability ratios*, April 2015.

To see how our current financeability test is performed in practice, see our current online model.[3]

[3] Our model is available at: https://www.ipart.nsw.gov.au/Home/Industries/Special-Reviews/Regulatory-policy/IPART-cost-building-block-and-pricing-model

Box 2.2 summarises the 2013 test.

Box 2.2 The review and subsequent 2013 test

Objectives of the review

The objectives of the 2013 review were to:

> …assess the short-term financial sustainability of the utility … whether the utility will be able to raise finance, consistent with an investment grade-rated business, during the regulatory period.

The subsequent 2013 test

1. We assess a business's financeability by first calculating three financial ratios:
   a) **Funds from operations (FFO) interest cover:** This is calculated as FFO plus interest expense divided by interest expense. This ratio measures a business's ability to service interest payments on debt.
   b) **Debt gearing (regulatory value):** This is calculated as debt divided by the regulatory value of fixed assets. It measures a business's leverage.
   c) **FFO divided by debt:** This is a more dynamic measure of leverage than debt gearing because it measures a business's ability to generate cash flows to service and repay debt.
2. We rank the three measures, focusing on the ratios that are most relevant in assessing the likely financial sustainability of a business.
3. We check whether our calculated financial ratios are consistent with our **benchmarks** for the three ratios. We use a credit rating of a Baa2 for our benchmark ratios.
4. We assess whether the business faces potential financial concerns over the regulatory period. We do not expect a business to meet every ratio in every year of a determination period.
5. If we identify a financeability issue, we may extend our analysis to include two to three years before and after a regulatory period, if the business has provided sufficiently robust data for the forecasts. We also review the business's financial statements, particularly its cash flow statement, to assess its ability to fund capital expenditure and dividends.
6. If a financeability concern exists, we identify the likely reasons and options available to the business and its owners to manage those concerns.
7. We assess whether we should make an explicit regulatory adjustment to address financeability concerns in the form of an NPV-neutral adjustment.

As the test was designed to assess a business's ability to finance its operations during a regulatory period, we do not issue a notional credit rating for the business as part of the test.

What inputs do we use for the test?

- We use the business's forecast cash flows as determined for the review, and the actual gearing ratio and actual cost of debt.
- We adjust for operating lease expense and pension benefits, based on data supplied by the business. The adjustments are based on Moody's published methodology at the time of the 2013 review.[a]

a Moody's Investors Service, *Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations*, December 2010.

Source: IPART, *Financeability tests in price regulation – Final Decision*, December 2013.

2.2 Objectives for this review

To guide our decisions, we propose to set the following objectives for this **review**:

1. To ensure the financeability test effectively assesses the impact of our pricing decisions on the short-term financial sustainability of the regulated business.
2. That our process for identifying and addressing a potential financeability problem supports efficient and prudent investment decisions by regulated businesses, and supports the long-term interests of consumers.

The financial sustainability of regulated businesses is necessary for continuing to provide services that are in the interests of consumers. At the same time, it is important that our decisions do not support imprudent and inefficient decisions by those businesses.

To meet both objectives, a key question for the review is whether the financeability test should focus on how our pricing decisions affect the financial viability of:

1. the benchmark efficient business (consistent with the approach taken for setting prices for the pricing review)
2. the actual business (the entity that needs to remain financially sustainable to continue providing services to customers), or
3. both.

Threshold for changing the financeability test as a result of this review

Overall, we think the 2013 test is working well; however, there are opportunities for improvements. Any changes to our current test will be undertaken because we are confident the update will:

1. better address our objectives for the test
2. increase transparency
3. avoid unnecessarily adding to the regulatory burden on the regulated business, and/or
4. avoid unnecessarily creating windfall gains or losses.

In particular, a regulated business often needs to supply additional data so we can calculate the financial metrics. It is important that we consider the cost to businesses of providing this data if we change our approach.

IPART seeks comments on the following

1 Do you agree with our guiding objectives for the review? Are there other objectives we should consider?

2.3 Approach for this review

In line with the scope of this review (see section 1.3), we propose to consider four broad elements of our current financeability test, which are:

1. its objective
2. the inputs we should use
3. the financial metrics and benchmarks we should use, and
4. the process for identifying and addressing a financeability problem.

We have conducted a preliminary review of our financeability test and identified potential changes in each of the above elements. We are inviting stakeholders to comment on the issues raised in this Issues Paper and to put forward other financeability-related issues.

We propose to examine the pros and cons of each of these changes compared to our current test, taking into account the objectives of the review, stakeholders' comments and other regulators' current financeability tests. We will also examine changes proposed by stakeholders and introduce them if we are convinced the changes will help the test better meet its objectives. As noted above, our decisions will be guided by our objectives for the review.

3 The purpose of the financeability test

We conduct the financeability test when we use our building block approach to set prices for regulated businesses.

We consider it sound regulatory practice to assess the impact of our pricing decisions on a business's financial sustainability. That said, conducting the test imposes a (small) regulatory burden on businesses and, depending on the results of the test, our ability to effectively address financeability concerns may be limited.

In this review, we propose to:

- consider whether we should conduct a financeability test
- establish guidelines for deciding whether to conduct the financeability test for a specific business, and
- set the objectives for the test.

3.1 Should we conduct a financeability test?

In forming our preliminary view, we weighed the benefits of the test against the costs, and assessed how the test has performed in practice.

3.1.1 What are the benefits of the test?

We think the test has the following benefits:

1. When the test is based on financial inputs for a benchmark business, we can assess whether our pricing decision would enable an efficient business to raise finance consistent with an investment grade–rated business.
2. When the test is based on financial inputs from the actual business, we can assess whether the business can raise finance consistent with an investment grade–rated business.
3. If we identify a financeability problem, it helps us decide what actions can be taken to address the problem.

Box 3.1 outlines the differences between the benchmark and actual inputs we propose to use in the test.

Box 3.1 The differences between the benchmark and actual financeability tests

The differences in the inputs for a benchmark and actual test are as follows:

- In the benchmark test, we use the same gearing ratio and cost of debt as we use to set the Notional Revenue Requirement (NRR).
- In the actual test, we use the business's actual cost of debt and debt outstanding (to calculate its gearing ratio relative to the Regulatory Asset Base (RAB)).

There is a flow on effect for tax and dividend payments. This means that these amounts will differ depending on whether we use benchmark or actual inputs (see Section 4.3.2 for further discussion on our approach for calculating tax payments).

Other aspects of the business, such as the RAB, opex and capex, are the same in either test and are consistent with the NRR.

That said, we think a standalone test using benchmark inputs alone may not be particularly useful because it uses the same inputs as those set for the notional revenue requirement. The Australian Energy Regulator (AER) recently made this argument in reviewing its rate of return guideline.[4] Box 3.2 outlines the overlap in using benchmark inputs for the financeability test.

Box 3.2 The benchmark financeability test

Our cost building block structure mimics a standard profit and loss (P&L) statement. The NRR may be expressed as follows:

- NRR = opex + (regulatory) depreciation + tax + return on debt + return on equity [1]

To run the calculation in equation [1], we estimate these costs for a benchmark efficient business.

To calculate the financial metrics under our current financeability method, we rearrange equation [1] to create a P&L using the allowances from the NRR.[a]

We calculate the return on equity (ie, profit after tax) as follows:

- Profit = NRR – opex – (regulatory) depreciation – interest expense – tax [2]

This highlights that if we only use benchmark inputs for the financeability test (based on equation [2]), the test may not provide much additional information on whether our regulatory allowance is sufficient for a benchmark efficient business. This suggests the financeability test cannot be used to check the NRR or the WACC set by IPART for a regulated business.

a As outlined in Section 4.3, we currently use the real return on debt in equation [1], but a nominal interest expense in equation [2]. If we continued to use a nominal cost of debt as a benchmark input to equation [2], the benchmark test would highlight the impact of indexing inflation into the regulatory asset base.

A test using benchmark inputs could, however, show that a business is not financeable if the allowed capital expenditure over the coming regulatory period is very high relative to the current regulatory asset base. In essence, if planned capital expenditure is very high relative to current revenue, the benchmark business's current cash flows may not be able to finance this investment in the short term. In this instance, the test reveals a mismatch in the regulated business's cash flows, although this shortfall is not expected to persist over time.

4 For further information, see AER, *Financial performance measures: Discussion paper*, February 2018, pp 29-30.

Overall, we think that if the return on assets allowance and the depreciation allowance are set appropriately, a benchmark business should be financeable.[5]

Our preliminary view is that there is benefit in the financeability test, as it assesses whether the regulated business – based on its actual capital structure – faces a financeability problem. We think the benchmark test is useful when combined with an actual test, because it helps diagnose the source of potential financeability concerns.

3.1.2 What are the costs of the test?

The financeability test requires a number of forecasts for the regulated business. While we require many of these forecasts to determine the NRR in the building block approach, we also need a few additional forecasts.

The information we require from the business depends on the metrics we use and the adjustments we make to conduct the financeability test (discussed further in section 4.3.1). Furthermore, we do not assess whether the additional information we obtain for the test is prudent or efficient, unlike other aspects of a pricing review such as operating and capital expenditure. If we reviewed these items, there would be a greater burden on the regulated business to provide and justify the information.

Although conducting the financeability test does impose a regulatory cost on the regulated business, we think this cost is relatively small.

3.1.3 How has our financeability test performed?

While it is difficult to assess the performance of our financeability test, recent history suggests the 2013 test is functioning as intended.

The 2013 test (which uses actual inputs) did not identify an issue for most of the regulated businesses we have set prices for. However, we did use this test to identify a potential financeability concern in our 2014 price review of Essential Energy's water and sewerage services (Essential Water) in Broken Hill.[6] The test allowed us to show that Essential Water's actual gearing was substantially higher than our benchmark (55 per cent), and that it would not be financially sustainable over the regulatory period unless it adopted a lower gearing ratio.

5 Ofgem also made this observation in *Regulating energy networks for the future: RPI-X@20—Current thinking working paper—Financeability*, May 2010, p 10.

6 IPART, *Essential Energy's water and sewerage services in Broken Hill – Review of prices from 1 July 2014 to 30 June 2018 – Final Report*, June 2014, pp 141-142.

3.1.4 Our preliminary view is that we should conduct a financeability test

Overall, we think the benefits of the test outweigh the costs. The potential cost of a regulated business failing is very high compared to the relatively small regulatory cost of conducting the test.

IPART seeks comments on the following

2 Do you agree that we should continue to conduct financeability tests?

3.2 Which businesses should we test?

As discussed earlier, we conduct a financeability test on regulated businesses where we have used our building block approach to set prices. However, we have not conducted a test in every building block review. For example, we did not conduct a test for our 2016 private ferries review, partly because the operators received financial viability payments from the NSW government.

In the 2013 test, we proposed to conduct a financeability test if:

- the prices we regulate determine the revenues of the service provider, and
- the service provider is established as, or part of, an entity with a distinct capital structure.[7]

Table 3.1 lists the price reviews where we have, and have not, conducted a financeability test since the 2013 financeability review. We have conducted a financeability test for most price reviews for regulated water utilities and for some businesses in the transport industry where we have used a building block approach to set revenue based on a regulatory asset base.

[7] IPART, *Financeability tests in price regulation – Final Decision*, December 2013, p 20.

Table 3.1 Pricing reviews since December 2013

Financeability test conducted	No financeability test conducted
Price reviews - building block approach and a Regulatory Asset Base	
▼ 2017 Sydney Desalination Plant price review	▼ 2018 review of rural and regional bus services
▼ 2017 WaterNSW (Rural) price review	▼ 2018 review of private ferries fares
▼ 2016 Sydney Water price review	▼ Annual review of fares for private ferries (Pre-2018)
▼ 2016 Hunter Water price review	▼ 2016 review of public transport fares in Sydney and surrounds
▼ 2016 WaterNSW (Greater Sydney) price review	▼ 2016 review of prices for the Water Administration Ministerial corporation
▼ 2016 review of fees and site occupation charges for cruise ships in Sydney Harbour	▼ 2014 review of fares for metropolitan and outer metropolitan bus services
▼ 2014 Essential Energy's Broken Hill water and sewerage price review	▼ 2014 review of prices for land valuation services provided by the Valuer-General to councils
Price reviews – no building block approach and no financeability test	
▼ Annual review of solar feed-in tariffs	
▼ Local government special variations	
▼ Annual update to net rates of return for domestic waterfront tenancies	
▼ Annual review of taxi fares in areas of NSW outside Sydney (Pre-2018)	
▼ Annual review of taxi fares and licences in Sydney (Pre-2018)	
▼ 2018 review of taxi fares and licences	
▼ 2016 review of the price for wholesale ethanol in NSW	
Special reviews – no financeability test	
▼ 2017 review of rent models for social and affordable housing	
▼ 2014 review of fees for NSW Trustee and Guardian	
▼ 2014 review of maximum towing fees	
▼ 2014 review of rental arrangements for communication towers on Crown Lands	

Source: IPART

IPART seeks comments on the following

3 Do you agree with the criteria in the 2013 test that we used to decide whether to conduct the financeability test for a specific business? Are there other criteria we should consider?

4 Have we have applied the financeability test to the appropriate price reviews since the 2013 financeability review?

3.3 What should the objectives of the test be?

To determine the objectives of the financeability test, a threshold question is whether the test should focus on how our pricing decisions would affect the financial viability of:

1. a benchmark efficient business, consistent with the approach we take to for set prices for the pricing review
2. the actual business, which was the objective of our 2013 review, or
3. both, which is our preliminary position for this review.

On one hand, if the objective of the test is to ensure that our price determination is not affected by an estimation error or by cash flow impacts that our building block approach may have failed to highlight, a financeability test on a benchmark business could be useful.

On the other hand, if the objective of the test is to generate an early warning that the actual business might face a financeability problem under our pricing determination, a test based on the actual business could be useful.

The financeability test could serve both objectives. We could first test the benchmark regulated business to ensure there are no calculation or cash flow problems. We could then test the actual regulated business. If there is a financeability problem at this second stage, information from both tests would help diagnose its source.

In thinking about the purpose of the financeability test, we have reviewed the objective specified in the 2013 test and have a preliminary view to broaden it to test whether a benchmark efficient business could raise finance.

The 2013 objective is to:

> …assess the short-term financial sustainability of the utility. This means that we assess whether the utility will be able to raise finance, consistent with an investment grade-rated firm, during the regulatory period.[8]

For the 2018 test, we propose that:

> The objectives of the financeability test are to:
>
> - ensure our pricing decisions would allow an efficient investment grade–rated business to raise finance during the regulatory period (benchmark test), and
> - assess whether the utility would meet this benchmark (actual test) during the regulatory period.

IPART seeks comments on the following

5 Do you agree with our proposed objectives for the financeability test?

[8] IPART, *Financeability tests in price regulation – Final Decision*, December 2013, p 2.

4 How we implement the test

As discussed in Chapter 2, we conduct the 2013 test using the business's actual financial inputs. To do this, we request financial data from the business that may be different to the inputs used to calculate our WACC. As a default, we limit our financial analysis to the upcoming regulatory period, unless we identify a financeability problem (in which case, we expand the time period for our analysis, if possible). We also limit our analysis to a quantitative assessment of the business's financeability.

In this review, we propose to consider a number of issues relating to how we implement the test, including:

- whether we conduct the test using actual or benchmark inputs, or both
- whether the test should be based on the portion of the business we regulate, or the whole business
- the adjustments we make to the data, and, in particular, to what extent the inputs for the test should be consistent with the WACC
- whether the time horizon for the test should be focused on the upcoming regulatory period, and
- whether our assessment should remain focused on a quantitative assessment of the business.

The following sections present our preliminary analysis of each of these issues.

4.1 We propose to conduct the test on actual and benchmark inputs

As discussed in Chapter 3, a key question for this review is whether the financeability test should focus on how our pricing decisions would affect the financial viability of:

1. the actual business
2. a benchmark efficient business, or
3. both.

The 2013 test uses the business's actual gearing ratio and a forecast of its actual interest expense. This approach assesses whether the business might face a financeability problem under our pricing determination, and may provide an early warning to shareholders of the business. In our 2013 review, we argued that "the purpose of our financeability test is to assess if a utility will be able to obtain additional financing in financial markets based on their current actual financial position, consistent with an investment grade firm".[9]

Additionally, the financeability test could assess whether a benchmark efficient business would remain financially sustainable under our pricing determination. In this instance, we

9 IPART, *Financeability tests in price regulation – Final Decision*, December 2013, p 7.

could use a benchmark gearing ratio and interest expense to conduct the test. We could use a benchmark test to provide a cross-check that our pricing decisions are not affected by a subtle cash flow impact our building block approach may have failed to capture.

Alternatively, we could first test the benchmark business to ensure there are no calculation or cash flow problems (and if there are, address these before making our final pricing decisions) and then conduct the financeability test using the business's actual inputs.

Table 4.1 outlines the pros and cons of using benchmark and actual inputs. The following section discusses the extent to which the choice of inputs for the test affects the incentives for the business to make efficient and prudent financing decisions.

Table 4.1 Should we use benchmark or actual inputs for the financeability test?

	Pros	Cons
Benchmark gearing and cost of debt from the WACC	▼ More consistent with our WACC parameters ▼ More consistent with our regulatory approach of incentive-based regulation and setting allowances based on a benchmark efficient business	▼ Does not indicate whether the actual business is financially sustainable ▼ As a standalone test it may only be useful in identifying cash flow problems, because the same inputs are used to set the NRR
Actual gearing and actual cost of debt from the business	▼ Can identify if the business faces a financeability issue	▼ Less consistent with our policy of setting allowances based on an benchmark efficient business ▼ Uses additional information that is not part of a pricing review

Either test can be consistent with efficient and prudent decision-making

It is important to ensure that our financeability test does not compensate an imprudent owner of the actual business for inefficient choices. Overall, we think a test based on benchmark or actual inputs can promote efficient and prudent decision making.

Under a benchmark test, there is a strong incentive for the business to be efficient (for example, by gearing to the benchmark level) because we would only review our pricing decisions if a benchmark efficient business did not pass the financeability test.

Importantly, under the 2013 test approach using actual inputs, we decided we would only consider NPV-neutral adjustments to our pricing decisions. This means a financeability problem would not lead to higher prices in present-value terms.

The structure of the test does not promote inefficient decisions, in and of itself. Instead, it influences the actions taken in response to the test. We do not consider any of the actions we would take to address a financeability problem would promote inefficient or imprudent decision making (see Chapter 6).

Furthermore, given that we set the regulatory allowances of a business, we have information about forecast revenues when making a pricing determination. This means that we are well

placed to assess the impact of our pricing decisions on the future financeability of a business. A credit rating agency or the management or owner of a business won't be able to assess the impact of our prices until we have made the determination (ie, ex post).

Regulators do not adopt a consistent approach

As highlighted in Appendix A:

- Ofgem and Ofwat in the United Kingdom base their financeability tests on inputs for a benchmark efficient business, while
- the Essential Services Commission (ESC) in Victoria bases its financeability test on inputs for the actual business.

Our preliminary view is that we should conduct both tests

Our preliminary view is that we should conduct two financeability tests, using:

- the benchmark inputs test to make sure our pricing decisions would allow an efficient business to remain financially sustainable, and
- the actual inputs test to assess the impact of our pricing decisions on the actual business.

Conducting both tests would maximise the usefulness of a financeability assessment. In particular, it would help highlight the source of a financeability problem for a business. For example, if a benchmark business passed the test but the actual business did not, it would indicate that the financeability problem for the business is not likely to be due to a cash flow timing issue.

IPART preliminary view

1 That we should conduct two separate financeability tests, using inputs for a benchmark efficient business and for the actual business.

IPART seeks comments on the following

6 Do you agree with our preliminary view that we should conduct separate financeability tests, using inputs for a benchmark efficient business and for the actual business?

4.2 Should the test be based on the regulated portion of the business?

In many cases, the businesses that we regulate are subsidiaries of a larger entity. For example:

- Essential Water is a subsidiary of Essential Energy (regulated by the AER)
- WaterNSW has two regulatory businesses (one for Greater Sydney and the other for rural water), and
- Central Coast Council has separate funds for water and sewerage, and for services funded by council rates.

In practice, we conduct our test using the gearing ratio and the cost of debt for the portion of the business for which we are setting prices (ie, the regulated portion of the business).

Alternatively, we could conduct the test by applying the gearing ratio and cost of debt across the whole business.

There are pros and cons with either approach. The following factors would suggest looking at the impact of our pricing decisions on the whole business:

- The financial health of a business is driven by the capital structure of the whole business, rather than a subsidiary alone.
- The amount of debt a business allocates to a subsidiary is, in many cases, discretionary.

However, the following factors suggest restricting our analysis to the portion of the business for which we are setting prices:

- Our focus is to promote efficiency within the regulated portion of the business.
- Conducting the assessment on the entire business may require it to provide significant additional data. It may also mean that unregulated and potentially unrelated portions of the business could influence a regulatory decision.

Our preliminary view is that:

- if we conduct the test using benchmark inputs, we should use a benchmark efficient business equivalent in scale to the regulated portion of the business, and
- if we conduct the test using the business's actual inputs:
  - as a default, we should do so on the regulated portion of the business, but
  - we would consider on a case-by-case basis whether this is appropriate, or if we should consider the whole business.

In making this decision, we would consider evidence and analysis provided by the regulated business.

IPART preliminary view

2 That as a default, we should conduct the financeability test on the portion of the business for which we are setting prices. If we conduct the test using the business's actual inputs, we should consider on a case-by-case basis whether to conduct the test using financial data for the whole business.

IPART seeks comments on the following

7 Do you agree with our preliminary position that as a default, we should conduct the financeability test on the portion of the business for which we set prices?

8 Do you agree that we should consider on a case-by-case basis whether to conduct the test using financial data for the whole business?

4.3 How should we adjust the inputs for the financeability test?

This section discusses the additional data we request from businesses so we can conduct the financeability test, and the inputs in the 2013 test that differ from the WACC and other regulatory allowances.

4.3.1 We require additional information to forecast interest expense

The financeability test requires a forecast of interest expense as a key input to the financial metrics. Under our current approach, using actual inputs, we require the business to provide their:

1. total actual debt (borrowings) at the beginning of the regulatory period
2. forecast cost of debt
3. forecast operating lease expense, and
4. forecast superannuation adjustment (ie, their forecast net liability from employees on a defined benefit scheme).

Items 2 to 4 are forecasts for the duration of the regulatory period. In the 2013 financeability test review, we decided to adjust financial data for operating lease expense and pension benefits.[10] The proposed adjustments are based on Moody's published methodology at the time.[11]

Of the additional four information requirements, we think the final adjustment is the most difficult for the business to forecast. This item is the difference between:

- the discounted present value of the future superannuation benefits that employees have earned, and
- the fair value of superannuation scheme's assets.

Moody's currently makes additional adjustments to financial data to compute the financial metrics in its ratings methodology. These include adjustments for capitalised interest and for unusual and non-recurring items.[12] We do not need to make some of Moody's adjustments, given the methodology and metrics we currently use.

We will be considering Moody's updated methodology[13] and other relevant updates as part of this review. We note that Moody's is requesting comment on their proposed updates to the standard operating lease adjustment following changes to accounting standards.[14]

If we introduce new metrics to our financeability test and/or further adjust the financial data, we may require additional data from businesses.

10 IPART, *Financeability tests in price regulation – Final Decision,* December 2013, p 2.

11 Moody's Investors Service, *Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations*, December 2010, pp 6-10.

12 Moody's Investors Service, *Financial Standard Adjustments in the Analysis of Non-Financial Corporations*, December 2016.

13 Moody's Investors Service, *Rating methodology – Regulated Water Utilities*, December 2015

14 Moody's Investors Service, *Moody's Proposes Update to Financial Statement Adjustments: Treatment of Lease Obligations – Request for comment*, March 2018

IPART seeks comments on the following

9 Do you agree with the adjustments we make for operating lease expense and pension benefits?

10 Should we consider any other adjustments to the inputs we use to calculate our financial metrics?

4.3.2 Some inputs to the 2013 test are not consistent with the WACC

A number of components are calculated differently in the 2013 test compared to the WACC and other regulatory allowances. In particular:

- The WACC uses the real cost of debt, whereas the financeability test uses a nominal cost of debt.
- The WACC uses a notional gearing ratio, whereas the financeability test uses the business's actual gearing ratio as a starting point.
- The tax allowance calculated in the financeability test is not necessarily the same as the tax allowance in the NRR.

We should consistently calculate the cost of debt

Our preliminary analysis suggests that using a nominal cost of debt in the financeability test may exaggerate financeability problems for actual and benchmark businesses. Because we use a real WACC approach, the impact of inflation on the nominal value of an asset is capitalised into the RAB. As such, we only need to compensate businesses for the real cost of debt and equity in the WACC.

However, when we conduct the financeability test, we use a business's nominal interest expense (the real return plus inflation), which may overestimate the revenue the business requires to finance their investment. We think businesses can manage the mismatch of when they are compensated for inflation; for example, by issuing bonds with lower-interest coupons to match the regulatory allowance. We think our test should not identify a financeability problem because of the way we compensate the business for inflation.

Our approach to calculating tax is reasonable

As outlined above, the tax allowance implicit in the financeability test differs from the building block approach:

- In the financeability test, to forecast tax payments, we apply the statutory tax rate to profit before tax and include tax on cash and non-cash capital contributions.
- In the building block approach, we calculate tax directly as a separate cost building block, using a notional gearing ratio and a post-tax WACC. We adjust the tax allowance for franking credits.

Table 4.2 compares how we calculate the tax allowance in the building block (before adjusting for franking credits) with how we propose to calculate the tax payments in the financeability test, respectively. The way we propose to calculate tax in the benchmark test is more similar to our building block approach compared to the actual test. The variance

between the benchmark and the actual tests reflects the flow-on impact of using different measures for the business's debt and gearing in these two tests.

Table 4.2 How we propose to calculate the tax allowance in the financeability test and our current building block allowance

	Building block tax allowance	Financeability test – actual	Financeability test – benchmark
Taxable income			
Regulatory revenue	NRR	Target revenue (usually smoothed NRR) plus regulatory revenue not shared with customers	As for actual
Cash capital contributions	Not included because cash capital contributions enter the RAB net of tax	Included	As for actual
In-kind capital contributions	Included	Included	As for actual
Profit/loss from asset sales	Proportion shared with customers (usually 0%)	Total profit/loss	As for actual
Deductible costs			
Operating costs	Forecast regulatory	Forecast regulatory	As for actual
Depreciation	Tax depreciation	Tax depreciation[a]	As for actual
Net interest payments	Based on benchmark gearing ratio and cost of debt	Based on actual gearing ratio and cost of debt	Based on benchmark cash flows and cost of debt[b]

[a] The 2013 test uses RAB depreciation when estimating tax payments; however, we propose to move to using tax depreciation. Please note that the online model currently uses RAB depreciation.

[b] For the tax allowance, we use the benchmark gearing ratio each year. However, for the financeability test, we propose to use the benchmark gearing ratio at the start of the new determination period, and then allow the ratio to vary depending on forecast cash flows.

Source: IPART

Our preliminary view is that these differences in how we calculate tax are reasonable, because:

- the building block estimates the revenue that an efficient business needs to recover from customers (through tariffs), whereas
- the financeability test estimates whether the business is financially sustainable based on the revenue of the business, which could include other sources of income such as asset sales and unregulated income, regardless of whether this is on a benchmark or actual business.

We think the way we calculate tax in the financeability test is simple, transparent and accurate, given the differences between the building block approach and the test.

IPART preliminary view

3 That we should calculate the real cost of debt in the financeability test, to match the WACC.

4 That our approach to estimate tax payments in the 2013 test remains reasonable.

IPART seeks comments on the following

11 Do you agree with our preliminary view that we should calculate a real cost of debt in the financeability test?

12 Do you agree with our preliminary view that our approach to estimating tax payments in the 2013 test remains reasonable? Are there changes we should consider to the way we calculate tax payments in the financeability test?

4.4 We propose to focus our financeability assessment on the upcoming regulatory period

We assess a business's financeability over the upcoming regulatory period. If we identify that a business may face a financeability problem, we extend our time period for analysis to include two to three years before and after the upcoming regulatory period, provided robust forecasts are available.

We focus on a short-term assessment of financeability because:

- it is difficult to accurately forecast cash flows and debt obligations beyond the upcoming regulatory period, and
- the purpose of the financeability test is to identify if the prices we set over the upcoming regulatory period are likely to provide sufficient cash flows for the business to meet its debt obligations and maintain an investment-grade credit rating.

Of other comparable regulators:

- Ofgem and Ofwat also analyse financeability over the upcoming regulatory period, but
- the ESC applies the test over a 10-year horizon.

IPART preliminary view

5 That we should continue to assess a business's financeability over the upcoming regulatory period.

IPART seeks comments on the following

13 Do you agree with our preliminary view that we should continue to assess a business's financeability over the upcoming regulatory period?

4.5 We propose to focus on a quantitative assessment of financeability

As discussed further in Chapter 5, we calculate financial metrics to provide a quantitative assessment of a business's financeability. This is consistent with the approach taken by other regulators.

In contrast, credit rating agencies such as Moody's also place weight on a qualitative assessment of a business's profile and financial policy.[15] In part, this difference reflects that rating agencies also focus on the management of the business, not just its financial health, when assigning a credit rating.

Our preliminary view is that we should continue with a solely quantitative assessment of financeability, as this approach is more transparent for stakeholders and more compatible with our objectives for the financeability test. The test assesses a business's financial health, which we think is best done using financial data.

IPART preliminary view

6 That we should continue to use quantitative data to assess a business's financeability.

IPART seeks comments on the following

14 Do you agree with our preliminary view that we should continue to use quantitative data to assess a business's financeability?

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15 For example, see Moody's Investors Service, *Rating Methodology: Regulated Water Utilities*, December 2015, p 6.

5 How we assess financeability

This chapter considers how we implement the financeability test. It includes the credit metrics we use in the test and the benchmark ratios for these metrics a business would need to meet to pass the test.

In this review, we propose to consider a number of issues relating to the ratios, including:

- the target credit rating we should adopt
- the financial metrics we should calculate
- the benchmark ratios we should adopt, and
- how to use the financial metrics to identify a financeability concern.

As discussed in Chapter 4, our preliminary position is that we should conduct separate financeability tests, using both benchmark and actual inputs. That is, we would first calculate the credit metrics using benchmark and actual inputs, separately. If the results suggest a financeability concern, we would combine the analyses from both tests to identify the source, and a potential remedy (which is discussed in Chapter 6).

5.1 What target credit rating should we adopt?

To decide whether a regulated business passes the financeability test, we need to establish a target credit rating. We can then compare the business's financial metrics against the benchmark ratios we establish for this target rating. Our existing approach is to use a target credit rating of BBB (which is equivalent to a Baa2 Moody's rating). We also use a BBB credit rating to set the WACC.

As stated in our 2017 WACC Method Final Report, we think the BBB credit rating is the "most appropriate because we consider that the BBB rating will, on average, provide an efficient estimate of the WACC." We also decided to adopt a single credit rating for all industries we regulate because it is not feasible to estimate an industry credit rating for a benchmark efficient business accurately.[16]

Our preliminary view is to continue to use the same target credit rating in the financeability test as used when setting the WACC allowance. We think this target credit rating ensures consistency with the WACC and achieves the objectives of the financeability test to assess whether the regulatory decisions are sufficient to maintain the financeability of a benchmark efficient business.

IPART preliminary view

7 To continue to use a BBB target credit rating across all industries.

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16 IPART, *Review of our WACC method*, February 2018, p 46.

IPART seeks comments on the following

15 Do you agree with our preliminary view to continue to use a BBB target credit rating across all industries?

5.2 What financial metrics should we calculate?

As presented in Chapter 2, the 2013 test calculates three financial ratios.

- **FFO interest cover:** This is calculated as FFO plus interest expense divided by interest expense. It measures the business's ability to service its debt.
- **Debt gearing (regulatory value):** This is calculated as a business's actual debt divided by the regulatory value of fixed assets. It measures the business's leverage.
- **FFO over debt:** This is calculated as FFO divided by the business's actual debt. It is a more dynamic measure of leverage than gearing because it measures the business's ability to generate cash flows to service and repay debt.

However, other regulators and Moody's use a range of other financial metrics to assess financeability. Appendix A presents a comparison of other regulators and Moody's. In particular:

- Moody's, Ofwat and Ofgem consider **retained cash flow (RCF) over debt**. It is calculated as the net change in the business's cash divided by its debt. It measures the ability of a business to service and repay debt after paying dividends.
- Ofwat and Ofgem consider equity metrics. For example, Ofgem considers **regulated equity over profit after tax**. This measure could be used to assess the capacity of shareholders to address financeability problems, or whether the WACC provides shareholders with a market-based rate of return.

We think our current metrics are appropriate, but we seek feedback on whether we should add metrics to the financeability test. In considering further metrics, we would assess the additional information the new metrics may provide against any additional information we would require from the business.

IPART seeks comments on the following

16 Do you think the current metrics are appropriate?

17 Are there any additional metrics we should use, and if so why?

5.3 What benchmark ratios should we adopt?

For each of the three metrics we consider as part of the 2013 test, we have established the minimum or maximum ratio that an investment-grade business would need to pass the financeability test. Table 5.1 shows these benchmark ratios.

Table 5.1 IPART's current financial ratio benchmarks

Metrics	A3	Baa1	Baa2	Baa3	Ba1
FFO/interest	>2.9x	2.3-2.9x	1.7-2.5x	1.4/1.5-1.7x	<1.4/1.5x
Debt/RAB[a]	<60%	80-85%	60-91%	90->100%	>100%
FFO/debt	>10%	>10%	<6-10%	5-8%	<4%

a Regulatory value.

Source: IPART, *Financeability tests in price regulation – Final Decision*, December 2013, p 10.

Each benchmark ratio has a wide range, and there is significant overlap between ratios. We think this could make it difficult for stakeholders to judge whether a particular set of ratios meets our target credit rating. In addition, the benchmark ratios credit rating agencies use have been refined since we developed our benchmark ratios in 2013. For example, Moody's has since published its benchmarks for regulated water utilities (see Table 5.2). We will consider the updated benchmarks.

Table 5.2 Moody's benchmark financial ratios

Financial ratio[a]	Aaa	Aa	A	Baa	Ba	B	Caa
Adjusted interest coverage ratio[b]	≥8x	4.5-8x	2.5-4.5x	1.5-2.5x	1.2-1.5x	1-1.2x	<1x
or	**or**	**or**	**or**	**or**	**or**	**or**	**or**
FFO interest coverage[c]	≥10x	7-10x	4.5-7x	2.5-4.5x	1.8-2.5x	1.5-1.8x	<1.5x
Net debt/RAB[d]	<25%	25-40%	40-55%	55-70%	70-85%	85-100%	≥100%
Or							
Debt/capitalisation				As above			
FFO/net debt	≥40%	25-40%	15-25%	10-15%	6-10%	4-6%	<4%
RCF/net debt	≥30%	20-30%	10-20%	6-10%	4-6%	2-4%	<2%

a Note that within each credit band there are three levels. For example, the Baa band contains Baa1, Baa2 and Baa3 credit ratings. The table reports the range for each credit metric across the three levels within a band.

b The adjusted interest coverage ratio is Moody's preferred metric for water utilities where allowed revenues or tariffs are determined using a building block approach or equivalent.

c Moody's uses this in jurisdictions where regulatory revenues or tariffs are not determined with a building block approach, or where the regulatory information needed to calculate capital charges may not be consistently available.

d Moody's uses this where the utility is regulated under a RAB-based model, and where the RAB accurately represents the invested capital on which the water utility will earn a return over time.

Source: Moody's Investors Service, *Rating methodology – Regulated Water Utilities*, December 2015, p 23.

We propose to revise the benchmark ratios for each metric as part of this review, so that they:

- reflect current best practice (eg, for credit rating agencies and lenders such as TCorp)
- reduce or eliminate any overlap where appropriate, and
- reflect the circumstances of the businesses we regulate.

We are seeking feedback from stakeholders about how we can improve these ratios, and whether the factors we have identified to revise our current ratios are appropriate.

IPART seeks comments on the following

18 How should we refine the benchmark ratios for our financial metrics?

5.4 How do we use the financial ratios to identify a financeability concern?

In our 2013 review, we stated that we will compare the credit metrics to the benchmark ratios as a guide in assessing a business's financial sustainability, but we do not expect that a business will "meet every ratio in every year of a determination period".[17]

The 2013 test also ranks the financial ratios in order of importance, to focus on the ratios that are most relevant in assessing financeability.[18] The test places more importance on the FFO interest coverage and the debt to RAB ratios than it does on the FFO to debt ratio.

Other than these guides, we do not have a step-by-step process or decision rule for assessing whether a financeability problem exists. This means the circumstances in which we would conclude that a financeability problem exists are unclear. It also implies that the assessment of a financeability concern is guided by discretion and judgement.

To promote regulatory certainty, we could set out a decision process – detailed or high-level – for assessing whether a financeability problem exists.

Part of that process could include a formal weighting of the financial ratios rather than a ranking – similar to that used by Moody's.[19] Table 5.3 presents the weightings Moody's applies to each financial metric.

Table 5.3 Moody's sub-factor weightings for financial ratios

Financial ratio	Weighting
Adjusted interest coverage **or** FFO interest coverage	12.5%
Net debt/RAB **or** debt/capitalisation	10%
FFO/net debt	12.5%
RCF/net debt	5%
Total weighting for financial ratios	40%

Source: Moody's Investors Service, *Rating methodology – Regulated Water Utilities*, December 2015, p 6.

Our preliminary view is that we should not give a weighting to the financial ratios because:

1. we are not aiming to assign an overall credit rating
2. we think that the outcome of each financial ratio in each year relative to its benchmark, as well as the trend over time, provides insight that would be lost in a combined result, and
3. a binary result based on a weighting scheme may imply greater precision in the overall test than actually exists, and may not recognise the element of judgement that we apply.

17 IPART, *Financeability tests in price regulation– Final Decision*, December 2013, p 12.
18 Ibid.
19 Moody's Investors Service, *Rating methodology – Regulated Water Utilities*, December 2015, p 23.

In particular, we think the degree to which each financial ratio meets or fails a particular credit score, and the trend of each ratio within the review period, provides the most insight into a business's financial sustainability. However, we think it is not feasible to encode this assessment into a simple decision rule or precisely defined process. Instead, in identifying a financeability concern, for each financial metric, we propose:

- assessing whether the business meets the benchmark ratio in a given year, and
- when the business does not meet the benchmark ratio, assessing whether it is a trend or a persistent deterioration in the metric, or whether the business is likely to meet the benchmark ratio in future years.

We would then assess the extent to which each financial metric provides consistent information. To the extent that they are not consistent, our preliminary position is that we would continue to place more importance on the FFO interest coverage and the debt to RAB ratios than on the FFO to debt ratio.

If this preliminary analysis suggests that a financeability concern exists, the 2013 test outlines that we would seek further data from the business to extend the period of analysis to two or three years before and after the regulatory period, to check for evidence of a potential persistent financeability concern. We think this process remains appropriate.

If the more detailed analysis suggests a financeability concern, we would then identify the source and a potential remedy (see Chapter 6).

IPART preliminary view

8 That we should continue to rank our financial ratios in order of importance, placing more emphasis on the FFO interest coverage and the debt to RAB ratios than on the FFO to debt ratio.

IPART seeks comments on the following

19 Should we rank our financial ratios or adopt a weighting? If you think a ranking is appropriate, are there any improvements we can make to our current rankings?

20 Should we set out a step-by-step decision process to assess if a financeability problem exists?

21 Are there any other factors we should consider when we analyse the financial ratios?

6 Addressing a financeability concern

This chapter considers how IPART, a regulated business or its owners would respond to any financeability concern our test reveals. Currently, we consider NPV-neutral adjustments to prices if we identify a financeability concern.

We think the best response to a financeability concern depends on its source. In this review, we propose to consider:

- how we identify the source of a financeability concern
- the remedies we could use to address a concern, and
- the process we follow in addressing a concern.

6.1 How do we identify the source of a financeability concern?

Broadly speaking, there are three possible sources of a financeability concern:

1. Regulated prices are set too low for even a benchmark efficient business to maintain an investment-grade credit rating over time.
2. Regulated prices are sufficient for a benchmark efficient business but insufficient for the actual regulated business to maintain an investment-grade credit rating, because the business's owners have previously made imprudent or inefficient decisions. For example, the business may have previously engaged in inefficient spending which led to a higher gearing ratio and/or cost of debt.
3. Regulated prices are sufficient for the actual regulated business to maintain an investment-grade credit rating on average, but the timing of cash flows might create short-term financial problems from time to time.

Our proposed financeability test would involve three stages that are designed to test for each of these three sources of concern.

In the first stage of our proposed financeability test, we would examine the financial ratios over the regulatory period for a benchmark efficient business operating in the same markets and facing the same risks as the regulated business. This benchmark business may have a different gearing and cost of debt than the actual business, but it would have the same RAB and demand forecasts. We would assume that the benchmark business pays the statutory rate of tax and that standard tax depreciation schedules would apply to the business's assets.

In the second stage, we would examine the financial ratios over the regulatory period for the actual business, using the business's actual gearing and cost of debt. We would calculate tax payments based on the business's actual debt payments (see section 4.3.2).

In the third stage of our proposed financeability test we would focus on annual cash flows, in both the actual and benchmark tests, to determine whether there are financial problems in

particular years despite an average healthy financial position overall. For example, IPART's practice of indexing the RAB for inflation could contribute to cash flow difficulties for a regulated business. Under our current WACC method, the impact of inflation on the business's return on assets is capitalised into the asset base instead of being paid to the business in cash. This can reduce the cash flow available to the business to meet its interest payments and could, depending on how the business structures its debt repayments, lead to a financeability problem.

However, as discussed in Chapter 4, we think businesses can manage when they are compensated for inflation by reducing the amount of interest they repay in cash; for example, by issuing bonds with lower-interest coupons, to better align to the regulatory allowance. In effect, the business could issue bonds that index the debt for inflation in a way that matches the RAB indexation.

We seek comment from stakeholders on whether the three stages we have proposed would identify the source of a financeability concern. We particularly seek comment from stakeholders on whether the tests we propose would capture the relevant temporary cash flow problems that might require a timing adjustment to regulated income.

IPART seeks comments on the following

22 Do you think the three stages we have proposed to conduct the financeability test would identify whether a financeability concern is due to:

   – setting the regulatory allowance too low

   – the business taking imprudent or inefficient decisions, and/or

   – the timing of cash flows?

23 Does our proposed financeability test capture the relevant temporary cash flow problems that might require a timing adjustment to regulated income?

6.2 What remedies should we consider?

We have noted that we think the remedy applied to address a financeability concern should depend on the source of the concern.

If the source of the concern is that prices are too low even for a benchmark efficient business, we think the appropriate remedy is to review our pricing decision. In essence, this step would involve correcting a regulatory error. The financeability test could help identify any such error by applying additional information that may not have been available in the building block model used to set prices.

If the source of the concern is that prices are adequate for a benchmark efficient business but too low for the actual business because its owners have been imprudent or inefficient, there are appropriate remedies. The owners could reduce the business's level of debt by injecting more equity, accept a lower than market rate of return on their equity, or both. It is an important principle that an inefficient business should not be rewarded for its imprudent decisions at the expense of customers.

If the source of the financeability concern is a temporary cash flow problem despite an acceptable level of average profitability over time, it may be appropriate for the regulator to adjust the revenue profile over time in a way that is neutral to the business in present-value terms. We could make such an adjustment by increasing prices in some time periods while reducing them in others without changing the present value of income overall. This remedy is part of our existing financeability method.

In our 2013 review, we were not clear about whether any adjustment to prices should be limited to the upcoming regulatory period. Our current preliminary view is that we should limit any NPV-neutral adjustments to prices to the upcoming regulatory period, but we are seeking feedback from stakeholders about whether this approach is feasible in practice.

IPART preliminary view

9 That the remedy applied to address a financeability concern should depend on the source of the concern.

10 That if the source of a concern is due to regulatory error, we should correct the regulatory error.

11 That if the source of a concern is due to imprudent or inefficient business decisions, we should alert the business's owners to the potential need to inject more equity, accept a lower rate of return on equity, or both.

12 That if the source of a concern is due to temporary cash flow problems, we should consider adjusting prices in a way that is neutral to the business in present value terms. This adjustment should be limited to the upcoming regulatory period.

IPART seeks comments on the following

24 Do you agree that our proposed remedies to address a financeability concern are appropriate?

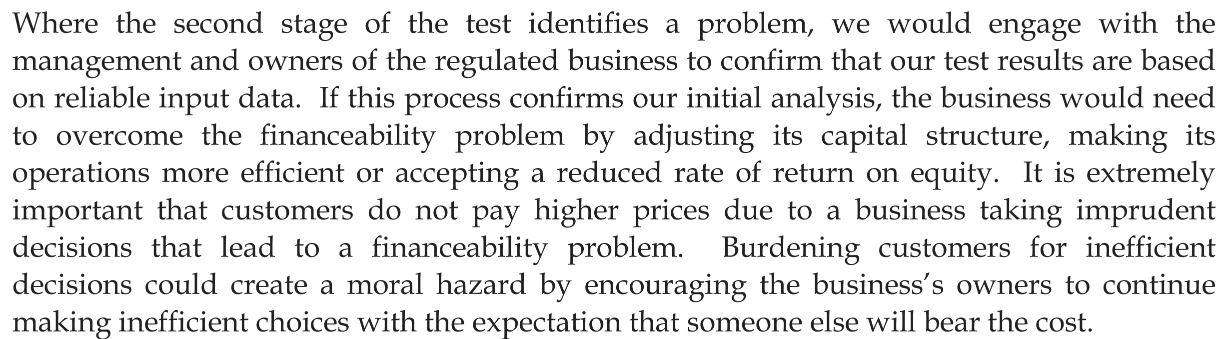
25 Are there other remedies that we should consider, and in what circumstances might it be appropriate to apply these remedies?

26 Do you think that any NPV-neutral adjustments to prices should be limited to the upcoming regulatory period?

6.3 What process should we follow to address a financeability concern?

If our financeability test identifies one of the above concerns, it is necessary to establish a process for applying a remedy. In general, this would need to happen via a consultative process so that we could take into account the views and preferences of affected stakeholders such as the business's owners and its customers.

If the first stage of the test identified a problem, it would be similar to a quality assurance step such as those IPART routinely takes for all its determinations. We expect that stakeholder consultation would not be necessary to identify this type of problem; in most cases, we would identify the problem and correct it before we release the prices. However, in the interests of transparency, we propose to make the first stage of the financeability test and its results public.



Where the second stage of the test identifies a problem, we would engage with the management and owners of the regulated business to confirm that our test results are based on reliable input data. If this process confirms our initial analysis, the business would need to overcome the financeability problem by adjusting its capital structure, making its operations more efficient or accepting a reduced rate of return on equity. It is extremely important that customers do not pay higher prices due to a business taking imprudent decisions that lead to a financeability problem. Burdening customers for inefficient decisions could create a moral hazard by encouraging the business's owners to continue making inefficient choices with the expectation that someone else will bear the cost.

When the third stage of the test identifies a problem, we would engage with the management of the regulated business to confirm that our test results represent a realistic forecast of their financial position. If this process confirms our initial analysis, then we would work with the business to shape the price profile to overcome the temporary financial problems while maintaining the present value of the revenue stream. If that is not feasible, we would reclassify the problem as a second-stage problem that requires the owners to resolve it; for example, by accepting a lower return on equity in some periods of the determination (potentially offset by higher returns in others).

IPART seeks comments on the following

27 Is our proposed process for addressing a financeability concern workable and reasonable?

Appendices

A Comparison with other regulators' approaches to financeability

Table A.1 compares the 2013 test with those of other regulators.

Table A.1 Comparison of the financeability test framework

	IPART	ESC	Ofgem	Ofwat
Objectives	To test the short-term financial sustainability of the utility. To assess whether the utility will be able to raise finance, consistent with an investment grade–rated firm, during the regulatory period.	To test whether each business can maintain an investment-grade credit rating, and service the financing costs arising from investment in infrastructure to meet service expectations. ("Financial viability of the industry" is a requirement of the *Essential Services Commission Act 2001*.)	To test whether an efficient network has the ability to "secure financing to facilitate the delivery of their regulatory obligations" (a legal requirement of Ofgem). That is, whether "a notional efficient network company" can attain "a comfortable investment grade" credit rating.	To "assess whether allowed revenues … are sufficient for a company to finance its investment on reasonable terms and to deliver its activities in the long term, while protecting the interests of existing and future customers".
Period of assessment	Upcoming regulatory period.	10-year horizon.	Upcoming price control period.	Average and trends over the upcoming price control period.
Benchmark or actual data	Actual capital structure and forecast interest expense.	Actual capital structure and forecast interest expense.	Benchmark gearing and cost of debt.[a] Conducts scenario testing using actuals.	Benchmark gearing and cost of debt.[a]
Financeability problem indicator	Compares ratios against financial ratio benchmarks. Does not expect a utility to meet every financial ratio benchmark in every year.	Applies a "degree of judgement" when using metric thresholds and considers the trend in the ratios over time.	Fails to meet target ratio for a sustained period. Deviates significantly from a target for more than one year. Repeatedly fails one target.	A range of metrics look weak over multiple years or there is a significant decline in cash flow metrics.
Remedy for a financeability problem	Extend analysis to two to three years before and after a regulatory period (if robust data is available). Refer short-term financeability concerns to the shareholders or management. Consider an NPV-neutral adjustment if shareholders or management cannot feasibly address the concerns.	Make an upward adjustment to prices in an NPV-neutral way (but not for imprudent business decisions). Price increases over a current single regulatory period are offset by future NPV-neutral price reductions, smoothed over a number of years to ensure business does not re-enter a financially vulnerable position.	Preference for NPV-neutral adjustments.	Reduce amount of totex capitalised and/or increase regulatory depreciation (in a NPV-neutral way).[b] Restrict dividends. Equity injections. Companies may propose remedies.

a The benchmark gearing ratio is set at the beginning of the period and is allowed to fluctuate endogenously based on the cash flows and expenditures of the benchmark firm during the regulatory period.

b This adjustment is conceptually equivalent to reducing capex and increasing opex by the same amount (in present value terms).

Sources: IPART, *Financeability tests in price regulation – Final Decision*, December 2013; ESC, *Assessing the financeability of Victorian water businesses: Consultation paper*, December 2013; ESC, *Assessing the financial viability of Victorian water businesses: Summary of views and proposed new indicator*, June 2014; Ofgem, *Strategy decision for the RIIO-ED1 electricity distribution price control: Financial Issues – Supplementary annex to RIIO-ED1 overview paper*, March 2013; Ofwat, *Delivering Water 2020: Our final methodology for the 2019 price review*, December 2017.

Table A.2 compares our financial metrics with those of other regulators and Moody's.

Table A.2 Comparison of the financial metrics used in the financeability test

Financial metric	Interpretation	Typical formula applied	IPART	ESC	Ofgem	Ofwat	Moody's
Debt ratios							
FFO interest cover	Measures the firm's ability to service its debt	(FFO+interest)/interest	✓	✓	✓	✓	✓
Gearing	Measures the firm's leverage	Net debt/RAB	✓	✓	✓	✓	✓
FFO/net debt	Measures the firm's ability to generate cash flows to service and repay debt	FFO/net debt	✓	✓	✓	✓	✓
RCF/net debt	Measures a company's debt burden relative to operational income, after paying dividends	(FFO–dividends paid)/net debt			✓	✓	✓
Internal financing ratio	Measures extent to which an entity has cash remaining to finance capex after dividends	(FFO–dividends paid)/capex		✓	✓		
Adjusted interest cover ratio (PMICR[a])	Measures a company's ability to meet its interest payments, taking into account regulatory depreciation	(FFO + interest–RAB depreciation)/interest			✓		
Adjusted cash interest cover ratio (ACICR)	Measures a company's ability to meet its interest payments after meeting costs that have been expensed and RAB run-off	(FFO(pre interest)–RAB run off)/cash interest				✓	
Equity ratios							
Regulated equity/EBITDA	Measures the return on regulated equity	Regulated equity/EBITDA			✓		
Regulated equity/profit after tax	Measures the return on regulated equity	Regulated equity/profit after tax			✓		
Dividend cover ratio	Measures a company's ability to pay dividends or, if a financeability problem is due to dividend commitments	Profit after tax/dividends declared			✓	✓	
Return on capital employed	Allows assessment of overall returns against the WACC	Profit after tax/ RAB				✓	
Return on regulated equity	Allows assessment of the returns earned by equity providers against the cost of equity	(EBIT–tax–(cost of debt* net debt))/ equity component of the RAB				✓	

a PMICR stands for 'Post-maintenance interest coverage ratio'.

Sources: IPART, *Financeability tests in price regulation – Final Decision*, December 2013; ESC, *2018 water price review – Guidance paper*, November 2016; Ofgem, *RIIO-ED1: Draft determinations for the slow-track electricity distribution companies: Financial issues – Supplementary annex to RIIO-ED1 overview paper*, July 2014; Ofwat, *Delivering Water 2020: Our final methodology for the 2019 price review*, December 2017; Moody's Investors Service, *Rating methodology – Regulated Water Utilities*, December 2015.