

Response to the Independent Pricing and Regulatory Tribunal Draft Report

WACC Methodology Review 2017



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1. Introduction

WaterNSW is pleased to provide this submission in response to the Independent Pricing and Regulatory Tribunal of NSW (IPART) *Review of Our WACC Method*, Draft Report, October 2017 (the Draft Report). This follows our previous submission to the IPART *Review of our WACC Method*, Issues Paper, July 2017 (the Issues Paper).

Our submission to the Draft Report focuses largely on the cost-of-debt component of the WACC. We broadly accept IPART's other recommended changes, though have reiterated some points made in our original submission to the Issues Paper.

We do not support IPART's proposed change to the cost-of-debt method, as outlined in the Draft Report, on the basis the proposed changes increase complexity, refinancing risk and debt raising costs – and do not achieve their intended objectives of reducing refinancing risk. The proposed changes are not an incremental improvement on the current method.

We reiterate the merits of a ten-year trailing average approach in this submission to the Draft Report, as proposed by most stakeholders (including all utilities and NSW Treasury) in submissions to the Issues Paper.

We consider that the trailing average approach is more aligned with the interests of customers, who value price stability and small, gradual, incremental changes in bills in preference to large step-changes that arise from “on-the-day” methods. This is supported by the Public Interest Advocacy Centre (PIAC)'s submission to the Issues Paper and recent research conducted by the Water Services Association of Australia (WSAA).

We ask IPART to reconsider its proposed changes to the WACC Method, and consider the views put forward herein and from stakeholders who have the interests of customers at heart.

We look forward to continuing to engage with IPART on this important review.

2. Response to Specific Matters

2.1 Measuring WACC Inputs

We accept IPART's draft decisions in relation to measuring WACC inputs (Draft Decisions 1 to 4 in the Draft Report).

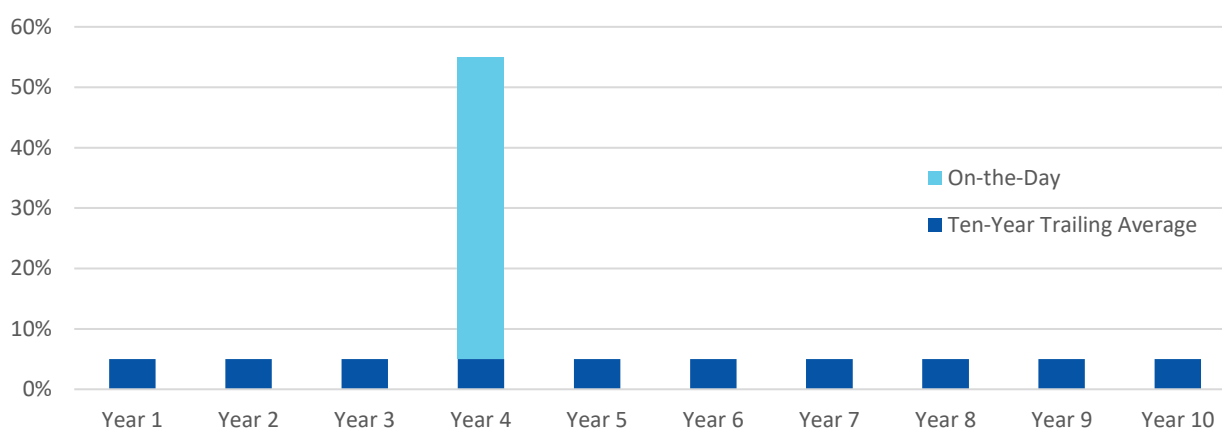
2.2 Determining the Cost of debt

2.2.1 IPART's existing (2013) Cost-of-Debt Allowance Method

IPART's existing method for providing the cost of debt is based on:

- 50% "on-the-day" (OTD)
- 50% ten year "historic average"
- no annual updates or "true-up" in following regulatory period.

Figure 1: Debt Maturity Profile of a Benchmark Firm at the Start of a New Regulatory Period under the Current WACC Method



We consider that the current method is working well, and is replicable by the benchmark utility through the following approach:

- for 50% of the debt portfolio (OTD), borrow this evenly over the 40 day observation period, or replicate this exposure through swap products; and
- for 50% of the portfolio (10 year), borrow this with maturities spread evenly over 10 years (i.e. 5% in each maturity year, over 10 years), or replicate this exposure through swap products.

Whilst replicable by utilities, the current method has several drawbacks:

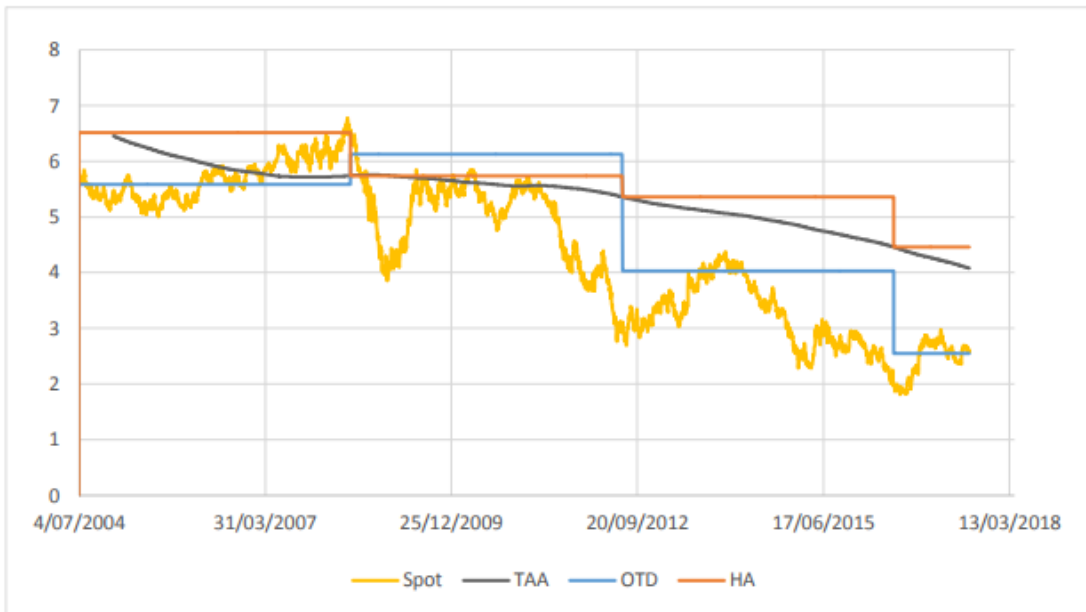
1. the 50% on-the-day portion presents a significant refinancing risk, particularly if physical debt is being refinanced, as opposed to swaps. This is especially the case where several IPART regulated utilities have common regulatory resets. For example if Sydney Water, Hunter Water and WaterNSW all seek to raise 50% of their debt in the 40 day observation period, this could present (a) a severe refinancing risk given the volume of debt (c.\$13 billion+ at 60% net debt to RAB), and (b) push up the cost of debt during the observation period. This concentration of refinancing risk would be especially problematic during a financial crisis where equity-holders (particularly in the case of a shared shareholder) may not themselves be able to raise capital to step-in if there is a shortage of debt financing available;
2. there is no distinction between historic debt and new debt required for capital expenditure, giving risk to under or over compensation of efficient debt costs for new capex;
3. Longer term assets tend to be supported by longer term debt durations. The current 50% "on-the-day" approach goes against this logic;
4. there is no true-up for differences between the actual cost-of-debt and determination, giving risk to under or over compensation of efficient debt costs. This is relevant for the 50% ten-year historic-average portion of the debt portfolio;
5. Customers are exposed to larger "step-changes" and price volatility due to changes in WACC (interest rates) when new prices are set following a determination (e.g. every 4 years), than would occur under a trailing average approach.

2.2.2 WaterNSW’s preferred incremental improvements to the Cost-of-Debt method

As outlined in our submission in response to the IPART Issues Paper, we recommend that IPART improve its cost-of-debt method by moving to a ten-year trailing average approach, with annual updates. This approach offers several important advantages over the current method:

- **Customers interests.** A ten-year trailing average with annual updates will provide smoother, more gradual adjustments to prices, which can be more readily absorbed by customers. Our view is evidenced by the submission by the Public Interest Advocacy Centre (PIAC) which submitted it preferred “...gradual, consistent incremental changes” ...which are better provided through a trailing average approach with annual updates. This was quite strongly demonstrated in NSW Treasury’s submission to the IPART Issues Paper:

Figure 2: Comparison of Cost-of-Debt Models alongside the Spot 10-Yr Government Bond Rate

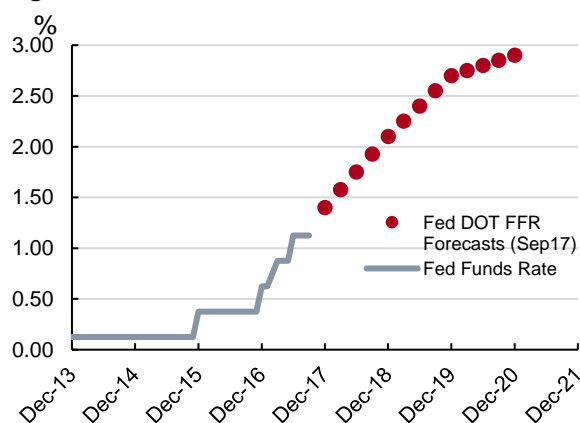


Source: NSW Treasury Submission to IPART Issues Paper, Page 4

Whilst methods with a larger “on-the-day” component allow utilities to pass on price decreases driven by lower interest rates faster, the opposite is also true: when interest rates increase, there will be larger, faster price increases to customers. We share the PIAC’s concerns about the ability for customers to absorb price shocks, or large step-changes in prices. Indeed, this is supported by a *National Customer Perceptions Study* conducted for the Water Services Association of Australia (WSAA) by InSync, which found that customers did not generally notice bills going down, but were sensitive to price increases.

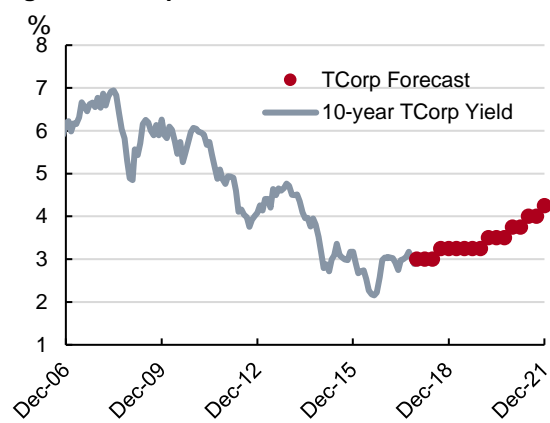
We are particularly concerned about this risk, given Australia’s interest rates are currently at relatively historic lows, and interest rate outlooks show interest rate rises are likely (TCorp).

Figure 3: US Fed Funds Rate



Source: TCorp

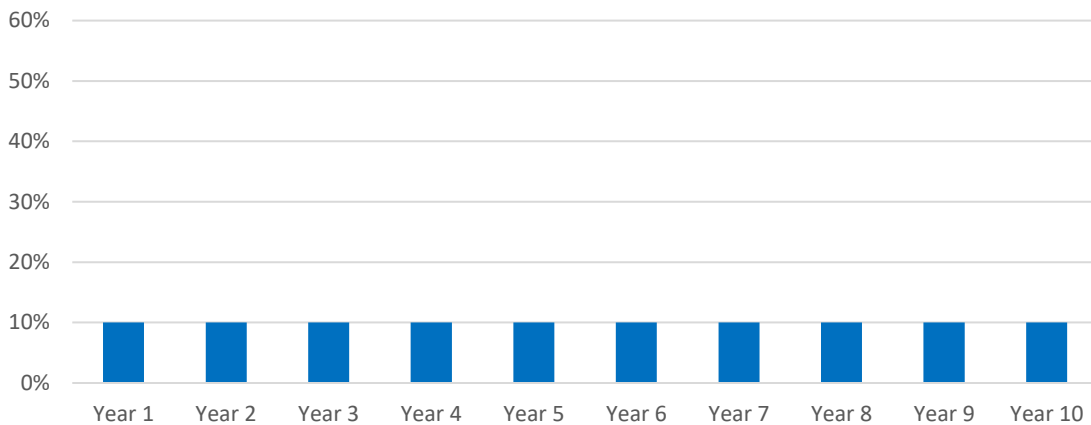
Figure 4: TCorp 10-Year Yield



A ten-year trailing average with annual updates will provide for gradual, small, incremental (i.e. non-volatile) adjustments to customer bills, better than any other method.

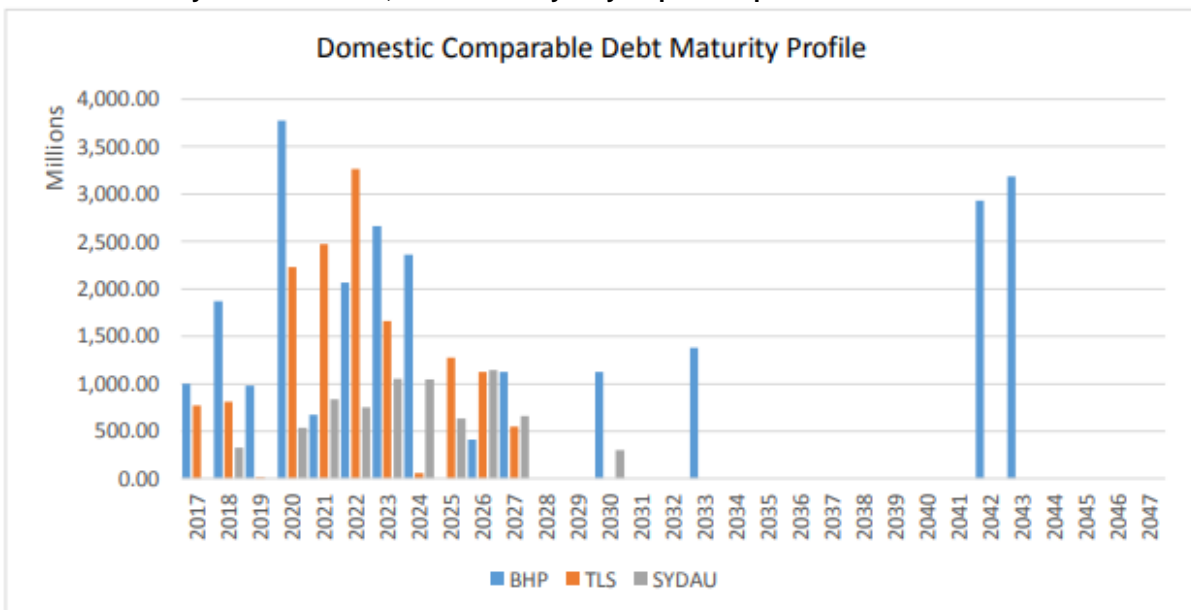
- **Reduced refinancing risk.** Moving to a ten year trailing average approach would reduce refinancing risk for the utilities replicating the IPART method. The 55% tower immediately before a regulatory reset, and 5% in annual maturities for the remaining nine years would change to 10% annual portions of debt resetting, which is much more readily financeable by firms.

Figure 5: Debt Maturity Profile of a 10-Year Trailing Average Model, as proposed in our Submission



As stated by Sydney Water in the Public Hearing, a private firm in a competitive market would not seek a debt maturity profile with a significant component refinancing in a short concentrated period of time, but would seek to spread out its refinancing risk to the extent possible. Evidence of this was provided by NSW Treasury in its submission to the Issues Paper, which shows that BHP Billiton (ASX:BHP), Telstra (ASX:TLS) and Sydney Airport Corporation (ASX: SYDAU) spread their refinancing out. There is evidence that these companies, and regulated energy utilities regulated by the AER, are targeting a modified duration of around 5 years, which is consistent with a ten-year trailing average.

Figure 6: Debt Maturity Profiles of BHP, Telstra and Sydney Airport Corporation



Source: NSW Treasury Submission to IPART Issues Paper, page 2

- **Actual Costs and Debt Allowances would be very close.** A utility adopting a ten-year trailing average debt management policy, in alignment with a ten-year trailing average cost-of-debt allowance provided by IPART, would incur a cost of debt very similar (if not identical) to the allowance. By definition this meets IPART's guiding principle. In such circumstances, IPART would not then need to be concerned if the trailing average is above or below spot interest rates, as the utility's own costs would be reflective of these circumstances, and there would be no wind-fall gains or losses at the expense of consumers.
- **Annual updates are better for inflation.** Small annual adjustments to water prices contribute to better measures of general price inflation in the economy, compared to larger "step-changes" at periodic (e.g. four year) regulatory price reviews. This is a factor that IPART is required to consider under section 15 of the IPART Act.

In response to several matters raised by IPART in its Draft Report:

1. **Marginal Cost of Debt during a determination period.** IPART's preference for retaining an "on-the-day" component of the cost-of-debt is based on the view that a utility in a competitive market would be exposed to the market cost of debt for new borrowings, as outlined in its Draft Report:

After considering stakeholders' submissions, we maintain our preference for setting the regulatory cost of debt as the midpoint between estimates of the current and historical cost of debt, as giving equal weight to the current cost of debt provides firms with incentives to make efficient investment decisions.⁵⁴ The current cost of debt reflects the marginal cost of raising debt for a firm near the start of the regulatory period. As the AER has noted, a regulatory cost of debt that reflects this marginal cost is "likely to more closely imitate the outcomes of a competitive market" (than an approach using historical averages).⁵⁵

We consider that a trailing-average approach is not inconsistent with this objective and provides greater alignment of financing and long-life infrastructure assets. Indeed, the AER (quoted above) has itself adopted a trailing average approach. Under a trailing average approach, the benchmark efficient firm is exposed to, and compensated for, the marginal cost of debt over the course of the regulatory period through the annual 10% of the debt portfolio maturity. That is, in a four-year determination, 40% of the cost of debt allowance is based on the cost of debt over the course of the regulatory period. In a five year determination, this would be 50%. This is fair and efficient for the benchmark efficient entity – whose actual costs will be synchronous with the cost of debt allowance.

For new capex, the cost of debt method should be aligned to the amount of new debt required to fund the capex at the benchmark gearing rate, the assumed capex profile per the pricing determination, and the expected cost of debt over the course of the determination period (or alternatively the "on-the-day" rate at the start of the determination). That way, the benchmark efficient firm is compensated at the marginal cost of debt in alignment with the capital program allowance provided in the pricing determination. This is entirely feasible under a trailing average approach, Indeed we understand this is the approach adopted by the AER and other regulators both within and outside of Australia.

2. **Impact of GFC type events and how long they will impact customer prices for.** IPART, in its Draft Report, stated:

Given our draft decision to set a term-to-maturity of 10 years, it is appropriate for debt costs to affect customer prices for a 10 year period. However, if historical events only affect financing costs for 10 years, we don't consider that customer prices should be higher (or lower) as a result of these events for a significantly longer period of up to 20 years.

We agree with this statement by IPART. This can be addressed by allowing annual updates during a regulatory period, and is only an issue under a “true-up”. We do not support arbitrarily excluding periods of volatility or financial crisis such as the GFC period from historical averages or from a trailing average calculation, as utilities’ debt costs do include the higher rates that are prevalent during these periods, and will continue to do so until those debt parcels / lines have matured. Indeed this is part of the merit of a trailing average model – with maturities spread out, relatively less debt is refinanced at any one point in time, which reduces customer bill exposure to these events. At same time, there is no under or over compensation to the utility.

3. **Administrative burden of annual updates.** We do not consider the administration of annual updates to be overly burdensome on utilities. We note that all utilities undertake annual updates for inflation. We also point out that WaterNSW, SDP and NSW Treasury all proposed annual updates. We recognize that Sydney Water and Hunter Water prefer a true-up, on the basis of the complexity of updating their billing systems or explaining small price adjustments to customers. Whilst we do not find these arguments to be prima-facie compelling, we accept that there are different views. We request that IPART be indifferent in its WACC Methodology in terms of applying either NPV-neutral true-up or annual updates – and decide on this aspect in utility pricing determinations.

Adopting this approach, the individual preferences and circumstances of utilities and their customers can be properly considered and allowed for, without affecting other utilities.

4. **Under or over compensation of firms.** We recognise this issue is of concern to IPART, and consider this to be a matter that can be dealt with through transition arrangements. There are several scenarios that need to be considered here:
 - a. a benchmark existing firm. An existing “benchmark” firm – i.e. who currently has a 60% Debt to RAB debt portfolio in alignment with the current 50% OTD and 50% Historical Average IPART methodology;
 - b. a benchmark new entrant. A new “benchmark” firm – who will begin raising debt within the next / upcoming determination period; and
 - c. a non-benchmark existing firm. An existing firm who is currently managing its debt portfolio to a different profile than the benchmark efficient entity.

The three scenarios identified above are discussed in more detail below.

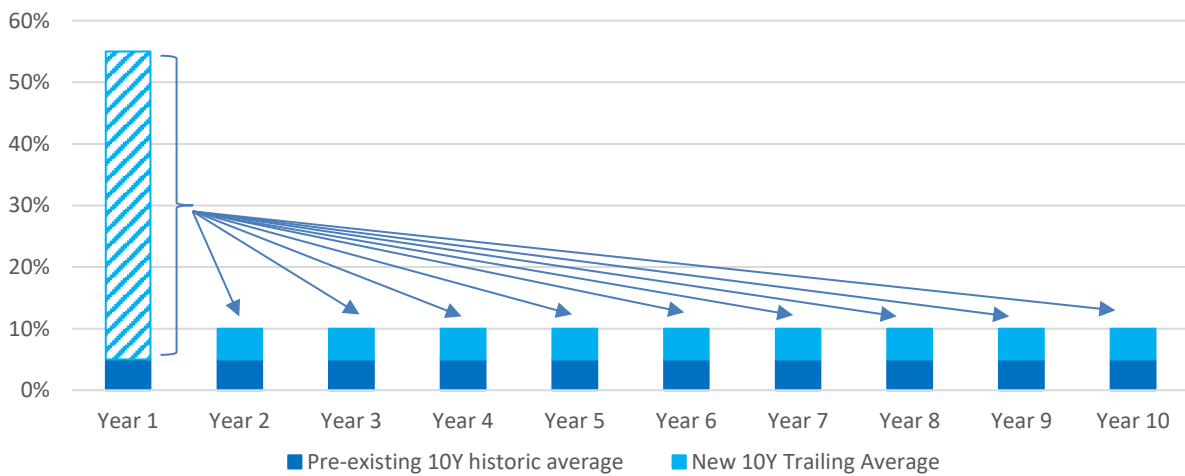
Scenario A: existing benchmark firm.

Under this scenario, the firm’s actual debt costs are already synchronous and reflective of the cost-of-debt allowance. Accordingly, should the regulatory cost-of-debt methodology change, this benchmark firm should be able to change its debt management approach synchronously – and the result should be no windfall loss or gain to the benchmark firm.

That is, there should be an appropriate opportunity for the benchmark firm to transition to the new efficient debt benchmark.

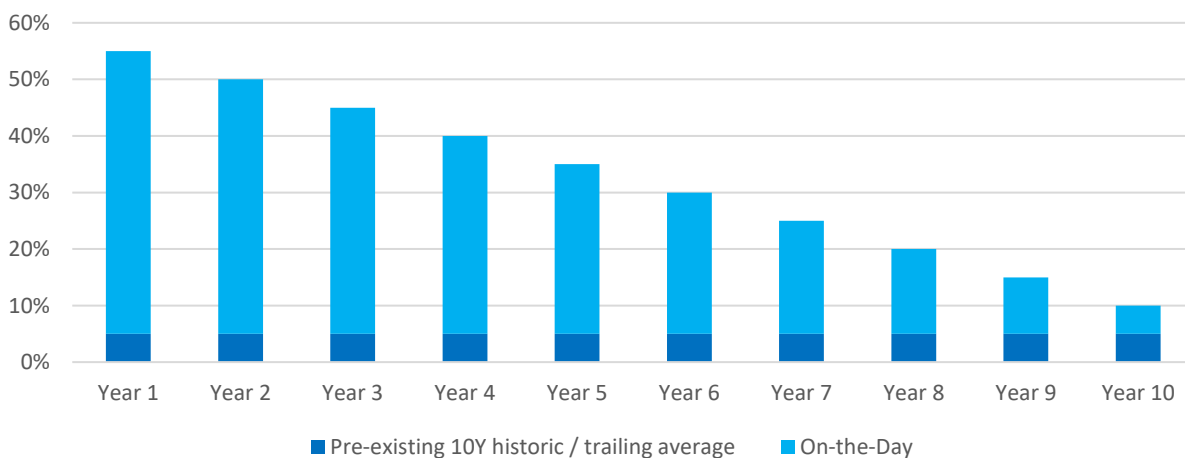
For a move to a ten-year trailing average approach from the current IPART method, we believe a ten-year transition would be required. The benchmark entity would refinance the 50% OTD Tower across the forward ten years as shown below:

Figure 7: A transition from current IPART WACC Method to Ten Year Trailing Average



Given the refinancing would be at the OTD cost of debt, the cost of debt allowance would be initially based on the 50% OTD and 50% ten-year trailing average, and then each year be updated to reflect 10% of the total portfolio refinancing (5% OTD portion and 5% historic average portion), which would reduce the OTD portion by -5%. At year 10, the actual cost of debt will be fully reflective of the ten-year trailing average.

Figure 8: A transition from current IPART WACC Method to Ten Year Trailing Average



Under this approach, there will be no under or over compensation of debt costs to the utility, irrespective of movements in interest rates.

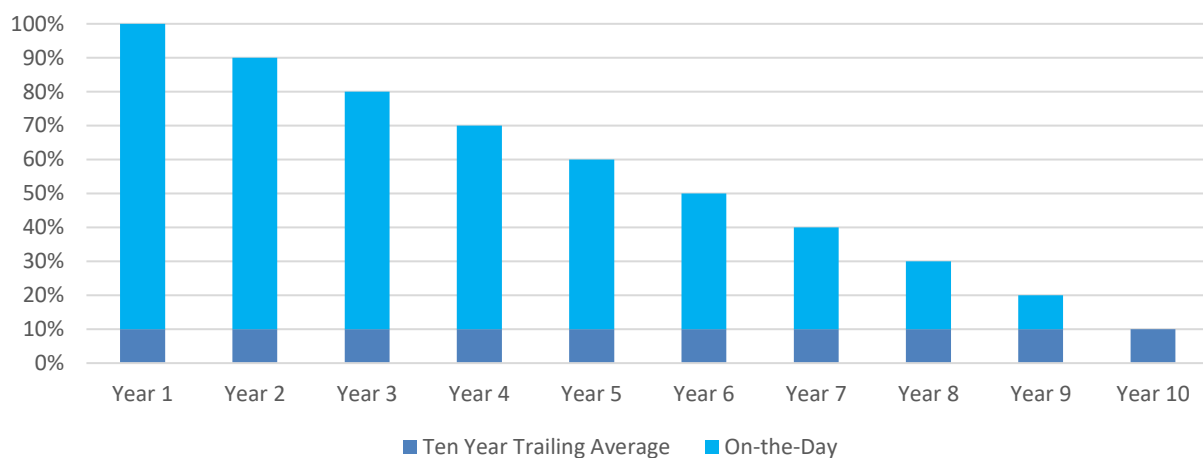
Scenario B: New entrant.

Under this scenario, it would not be appropriate to provide a cost-of-debt allowance based on historic averages, as there would be no way for the benchmark firm to replicate such a cost, and there would invariably be a degree of over or under compensation of debt costs to the new entrant. In practice, the benchmark entity would undertake new borrowings in alignment to the ten-year trailing average on a prospective (forward-looking) basis.

Under such circumstances, the benchmark new-entrant entity's borrowings would align to the ten-year trailing average as shown in Figure 5.

However the cost-of-debt would be 100% OTD in year one, reducing by -10% per year as debt comes up for refinancing:

Figure 9: Cost of Debt Allowance Under Transition From Current Method to Ten-Year Trailing Average



An example of where this will be relevant is the upcoming determination for the Broken Hill Pipeline.

Scenario C: Non-benchmark firm.

Under scenarios where an existing firm is not aligned to the pre-existing regulatory debt benchmark, it may seek a different transition to the benchmark efficient entity.

There may be circumstances where such a request has merit, for example if the firm is already following a debt management strategy in alignment to the new efficient debt benchmark. Under such circumstances, the entity may seek an “instant” transition to the new benchmark. In this case, the firm would not be over or under compensated for debt costs – as its actual costs will be reflective of the new efficient benchmark.

We recommend IPART consider such requests on a case-by-case basis.

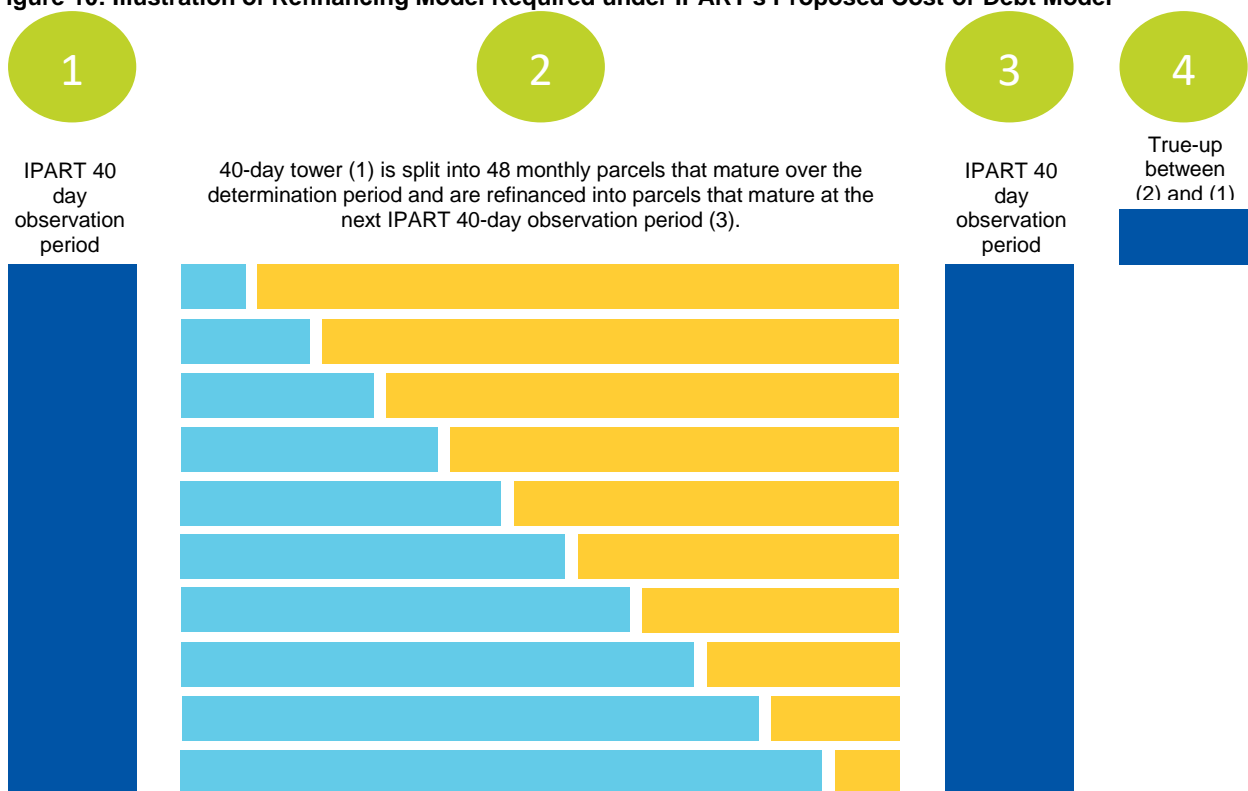
2.2.3 IPART’s Proposed Method to providing a Cost-of-Debt Allowance

IPART, in its Draft Report, has proposed a change to its existing (2013) methodology for the cost-of-debt allowance. Under IPART’s Draft Report Proposal, the benchmark efficient utility would:

- refinance 50% of its debt portfolio on a 10-year trailing average basis (i.e. 5% per annum)
- refinance 50% of its debt portfolio during the 40-day observation period advised by IPART ahead of a price determination, and
 - structure this component of the debt portfolio to mature evenly over the regulatory period (i.e. for a four year regulatory period, over 48 months); and
 - set the maturity for each monthly parcel of debt to the next 40-day observation period at the start of the next regulatory period, and
- receive a “true-up” adjustment for any under or over compensation between actual debt costs and the cost-of-debt allowance in the previous determination.

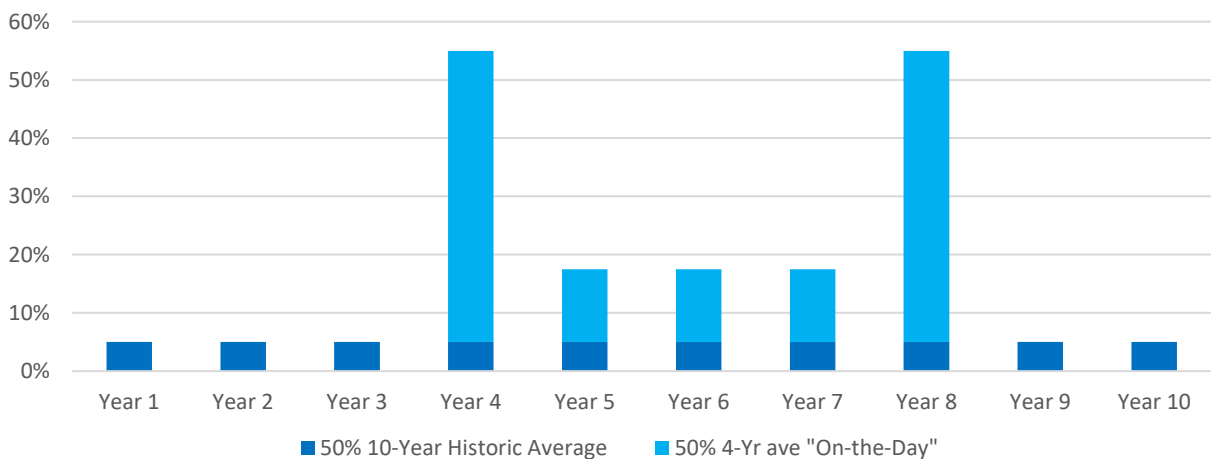
This is illustrated below:

Figure 10: Illustration of Refinancing Model Required under IPART's Proposed Cost-of-Debt Model



This results in the following annual debt maturity / refinancing profile:

Figure 11: Annual Debt Maturity Profile Under IPART Draft Report Proposal



The illustration above shows that the IPART proposal does not reduce refinancing risk to the regulated utility, as the 50% on-the-day tower is retained. In fact, refinancing risk has increased, as there is an increase from 5% to 17.5% of annual debt maturing between regulatory determination years (i.e. years 5 to 7 above). Moreover, debt raising costs will increase for a benchmark utility replicating this model, as the refinancing of the 50% on-the-day tower over 48 months require significantly more transactions.

It is not an incremental improvement to the current IPART methodology.

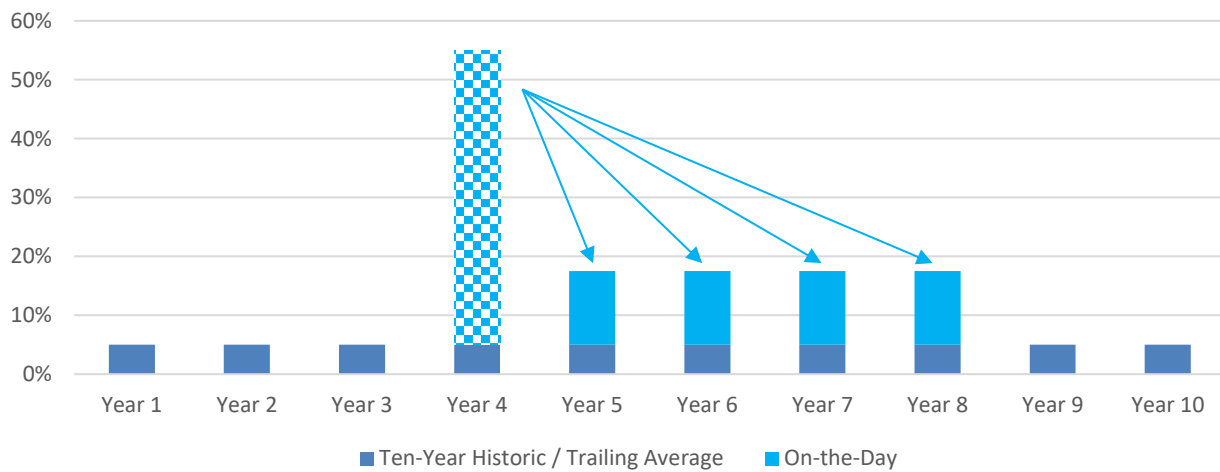
2.2.4 An alternative: a four-year trailing average

During consultation with stakeholders, IPART raised the idea of adjusting its proposal to be:

- 50% ten-year historic/trailing average
- 50% trailing average over the length of the regulatory determination period.

For a utility with a four year determination period, this would result in the following maturity profile:

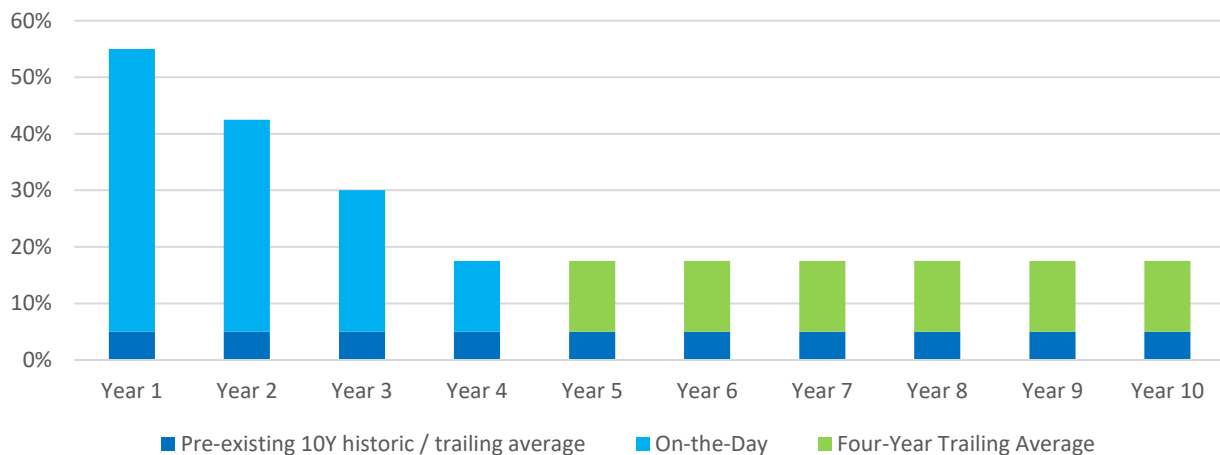
Figure 12: An Alternative to IPART Draft Report Proposal - A 50% Four-Year Trailing Average



Under this model, 70% of the cost of debt allowance would be linked to the actual cost of debt during the regulatory period – in line with the current (2013) IPART method.

We would consider this an improvement on the current IPART method, particularly if annual updates or a true up (for the entire cost of debt – i.e. both the ten-year historic/trailing average component and the four-year trailing average component) at the next regulatory period is included. We note that under this approach, a transition period of only one regulatory period would be required:

Figure 13: A transition from Current IPART WACC Method to 50% Four-Year Trailing Average



2.2.5 Our Recommended Way Forward

In order of preference, our recommendations to IPART for determining the cost-of-debt allowance are as follows:

1. Adopt a ten year trailing average approach with annual updates (or true-up) as outlined in our submission and this response to the Draft Report; or
2. Adopt a 50% ten year and 50% four-year trailing average approach with annual updates (or true-up) as outlined in this submission to the Draft Report; or
3. Retain the current WACC Method, with true-up in the following regulatory period for the 50% historical average component; and note that
4. We do not support the IPART proposed cost-of-debt method in its Draft Report. This approach is our least preferred option.

2.3 Cost of equity

2.3.1 Market Risk Premium

We accept IPART's draft decisions in relation to measuring the Market Risk Premium (Draft Decisions 11 to 18 in the Draft Report).

2.3.2 Equity Beta, gearing and the selection of Proxy Firms

We reiterate our proposal in our submission. We consider that an enhancement to the regulatory process would be to conduct a review of the appropriate equity beta, gearing and the selection of proxy firms outside of price reviews. This will provide IPART-regulated utilities with more certainty on these parameters ahead of price-review submissions, and enhance the predictability and transparency of the IPART regulatory process.

Given that IPART typically undertakes a review of the WACC methodology between price reviews, we consider this an appropriate opportunity for IPART to review proxy companies and benchmarks for equity beta parameters.

However, both IPART and the regulated entity should still be able to submit a case for different parameters at the time of an individual price review, if there are strong grounds. This is important to ensure there is an opportunity for re-estimation in the event of significant market changes between the prior review and the time of the price submission.

If IPART retains its draft decision to review the appropriate equity beta and selection of proxy firms at price reviews, then we request that IPART provide more transparency on the make-up of its existing proxy firms – potentially through disclosure in the biennial WACC Market Update – as this will provide better information for utilities to consider as they prepare their pricing determination submissions.

We support, in principle, the concept of using the broadest selection possible of proxy companies and the exclusion of thinly traded stocks. However the process for selecting proxy companies needs to be transparent and consultative with the utility, the market and stakeholders.

We also accept / support Draft Decision 21 – determining the equity beta using OLS estimation and applying the Vasicek adjustment.

2.4 Combining measurements to derive the WACC

We support IPART's draft decisions in relation to applying discretion through the uncertainty index decision rule during periods of uncertainty (Draft Decisions 22 to 24 in the Draft Report). As stated in our submission, we consider the uncertainty index to be a transparent and logical approach to making adjustments to the WACC.

2.5 Measuring inflation and gamma

We accept IPART's draft decisions in relation to measuring inflation and gamma (Draft Decisions 26 to 31 in the Draft Report). However we reiterate our support for using Break-Even Inflation (BEI), as proposed by TCorp / NSW Treasury.