

# Response to IPART Discussion Paper

## Estimating the Debt Margin for the Weighted Average Cost of Capital

Joint submission by the  
Victorian Electricity Distribution Businesses

19 June 2009



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**Submission on IPART Discussion Paper:  
Estimating the Debt Margin for the Weighted Average Cost of Capital**

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## 1 Introduction and Purpose

This paper sets out a submission by the Victorian Electricity Distribution Businesses (DBs) in response to IPART's invitation for comments on its Discussion Paper titled *Estimating the Debt Margin for the Weighted Average Cost of Capital*. This submission reflects the views of Jemena Electricity Networks (Vic) Ltd, CitiPower Pty, Powercor Australia Ltd, United Energy Distribution Pty Ltd, and SPI Electricity Pty Ltd.

In providing this submission to IPART, it is noted that IPART's deliberations on the debt margin and the WACC are not applicable to the Victorian DBs given that:

- following the establishment of the Australian Energy Regulator (AER), and the assumption by the AER of responsibility for regulation of all transmission and distribution networks in the National Electricity Market, IPART is no longer responsible for regulation of electricity distribution in New South Wales; and
- the provisions governing the AER's determination of the debt risk premium are set out in the National Electricity Rules (NER), and these provisions require the adoption of a benchmark observed annualised Australian benchmark corporate bond rate for corporate bonds which have a maturity of 10 years and a credit rating of BBB+.

Notwithstanding this, the Victorian DBs consider that there is merit in drawing IPART's attention to the extensive analysis set out in a recent submission the companies made to the AER regarding the benchmark cost of debt for a regulated electricity distribution service<sup>1</sup>. The analysis and findings set out in that submission are relevant to the specific questions raised in the Discussion Paper and the matters now being considered by IPART, and we therefore encourage IPART to review that submission.

In addition, we have some further comments on the Discussion Paper in relation to the following matters:

- the use of sector-specific bond yields to estimate the cost of debt of regulated businesses.
- the use of Bloomberg fair yield estimates; and
- the Victorian BDs' proposed approach to estimating the debt risk premium.

Our comments on these matters are set out in sections 2 to 5 below. Concluding remarks are set out in section 6.

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<sup>1</sup> The Victorian DBs' submission is titled *Debt Risk Premium for use in the Initial AMI WACC Period*. It was lodged with the AER on 1 June 2009. A copy is available from the AER's web site at: <http://www.aer.gov.au/content/item.phtml?itemId=728719&nodeId=9d513213e21a2ef723d8de3024d30579&fn=AMI%20debt%20risk%20premium%20-%20joint%20DNSP%20submission.pdf>

## 2 Proposed use of sector-specific bond yields

The IPART Discussion Paper suggests the possible adoption of a methodology for estimating the benchmark cost of debt that would use sector-specific bond yields which IPART contends are significantly lower than yields on BBB / BBB+ bonds.

The analysis underpinning IPART's proposals appears to be based on a small set of observations over a very short (20-day) period in the midst of a global financial crisis, and therefore at a time of extreme illiquidity and volatility in credit markets<sup>2</sup>. In addition, IPART's analysis seeks to compare data relating to bonds with different maturities and credit ratings without making any adjustments for the term structure of bond yields or credit spreads.

Given the present highly unusual debt market conditions, and given that IPART is developing a methodology for regulatory decision-making over the longer term, we suggest that IPART should be seeking to examine the broadest possible set of valid data, to ensure that the development of its policy on estimating the benchmark cost of debt is soundly based.

We do not consider that the data and analysis presented in the Discussion Paper provides a sound foundation for the development of IPART's policy in this area.

More specifically, we have a number of other concerns with the analysis and reasoning presented in the Discussion Paper, for the reasons set out in this section.

### 2.1 Comparison of utility sector bond yields and other sectors

IPART contends that yields on utility sector bonds<sup>3</sup> are below those of bonds issued in other sectors. Analysis presented in section 5.1 of the Discussion Paper and Figure 5.1 (debt margins by industry group) and Figure 5.2 (debt margins by credit ratings) is cited to support this contention.

We do not consider that IPART's contention is soundly based. The analysis presented in section 5.1 compares inconsistent data across industries and across different rating classes. The observed yields on utility stocks may be lower than those observed in other sectors for a number of reasons, including the following:

- The maturity of utility debt may be shorter than that of the other sectors. This would affect the relative yields observed on these different securities; however differences in the yields observed for different sectors may simply reflect the term structure of interest rates<sup>4</sup>.
- As noted in further detail in section 2.2 below, the credit rating of every entity takes into consideration industry-specific and company-specific factors. Therefore, in general, investors would be assuming the same risk for any equivalent rated security. However, in times of financial crisis investors may perceive the risk in a particular stock as being higher, in the absence of information, or because of financial difficulties faced by another company in a similar industry. This may lead to the prices of a particular stock and / or

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<sup>2</sup> Section 3.1 of the Victorian DBs' June 2009 submission to the AER on the debt risk premium in the AMI pricing review examines the commentary of the Reserve Bank on the prevailing credit market conditions and provides an overview of those conditions.

<sup>3</sup> The terms "bond", "security" and "stock" are synonymous and are used interchangeably throughout this paper.

<sup>4</sup> Further comments on the term structure of interest rates are set out in section 2.4 of this submission.

sector moving in a way which appears to be inconsistent with prevailing credit ratings. As noted on page 23 of the Discussion Paper, investors may react before a rating agency updates its outlook for that particular stock or sector. Such stocks are typically priced as “outliers”, and they can be identified. It is not possible to conclude that any re-pricing of a stock in this way is industry-specific, as these outliers exist in many sectors, and do not always represent the same credit risk as other companies in that sector. In view of these considerations, it is not possible to determine that utility industry debt is any less risky (and therefore trades at a lower yield) than any other equivalent security from another sector. The recent demise of Babcock and Brown provides a case study that clearly illustrates this point.

- The apparent differences in yields between sectors may also reflect other factors such as liquidity, and the nature of the bond issues in question (for instance, whether they are publicly or privately traded).
- Another reason for the observations in Figure 5.1 and 5.2 is that the observed data is likely to be flawed because it is not necessarily based on actual trades. For instance, there appear to be large disparities between the data submitted to data services such as Bloomberg by the different banks since the onset of the global financial crisis. Indeed, as noted in further detail below, care must be taken in interpreting Bloomberg data under the market conditions prevailing in a global credit crisis. In particular, it is noted that in response to a query regarding the process that Bloomberg applies when it uses a bond price in the calculation of its fair value curves, Bloomberg has advised that<sup>5</sup>:

“In general a bond taken into consideration in the construction of a given curve will have a Bloomberg 'generic price'. This generic price is only created when there are 5 pricing sources. These sources do not need to be executable to count in the 'generic price' creation process, although they may be. An executable price is generally quoted in an amount that would be a small percentage of the original issuing size. In short there is no absolute way to ascertain whether a price has been traded.”

We do not consider that the analysis presented in the Discussion Paper has properly taken into account the factors discussed above. Moreover, we consider that there is no conclusive evidence provided in the IPART paper to demonstrate that utility securities trade at yields that are different to those on equivalent securities (i.e. equivalent in all terms) in other industries.

## 2.2 Selection of bonds to form a sector-specific sample

Following on from the observations set out in section 2.1, we have concerns with the suggestion that the sample of bonds used to estimate the benchmark cost of debt for a regulated entity should be confined to “utility” stocks. In particular, in addition to the points noted above we noted that:

- All of the “utility” bonds (listed in Table 4.3 and Appendix D of the Discussion Paper) have maturities of four years or less, with seven of the eight bonds having maturities of between less than one month (at the time of writing the Discussion Paper) and 2 ½ years. The analysis and debt margin estimates presented in sections 5.2 and 5.3 of the Discussion Paper appear to make no adjustments for the term structure of corporate bond yields out to 10 years, although the Discussion Paper notes IPART’s intention to estimate a 10 year cost of debt, and to obtain expert advice regarding adjustments to reflect the term structure of interest rates to enable an estimate of 10 year yields to be

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<sup>5</sup> Email from Robin Pickover, Bloomberg Sydney Office to Julie Williams, Chief Financial Officer, CitiPower-Powercor, 17 May 2009.

derived<sup>6</sup>. The Victorian DBs believe that IPART is underplaying the materiality of any adjustments which must be made to construct such an estimate and further that once appropriately adjusted, a similar analysis would, in fact support a conclusion that the Bloomberg fair yield curve currently underestimates the yield on 10 year BBB+ debt by a material margin.

- Some of the bonds (e.g. CitiPower) in IPART's sample of utility bonds are floating rate bonds. The observed market yields on floating rate bonds must be converted to equivalent fixed rate yields on long-dated (10-year) bonds in order to provide a valid cost of debt benchmark. Section 5.2 of the Victorian DBs' submission to the AER provides a detailed explanation, including examples, of how the variable rate debt market can be linked with the fixed rate bond market through the interest rate swap market, and how pricing can be compared between the two via the swap rate.
- The utility stocks used in IPART's sample include floating rate securities and AAA credit wrapped notes. In particular, of the eight bonds listed in Table 4.3 of the Discussion Paper, five are rated AAA by Standard and Poors, one is rated A-, and the remaining two are rated BBB and BBB+. The strong credit ratings exhibited by the bonds in this small sample are likely to reflect credit support (in some cases in the form of credit wrapping), the costs of which are not reflected in observed yields. As acknowledged by IPART on page 34 of the Discussion Paper:

"IPART notes that in some cases the credit rating may be influenced by the parent company in cases where there is a majority shareholder able to influence the rating agencies outlook on the companies' ability to service its liabilities. IPART is estimating a commercial cost of debt of stand-alone entities and it is widely recognised that there is substantial uncertainty involved in estimating the cost of debt from benchmark data."

- We strongly concur with IPART that there is indeed substantial uncertainty involved in estimating the cost of debt of a stand-alone entity from benchmark data. It is also important to recognise that the proper application of the competitive neutrality principle requires such an estimate to be made, having regard to the implicit and explicit costs of any credit support provided to bonds used in establishing the benchmark cost of debt. It is doubtful whether an approach based on sector-specific bond yields can readily provide a benchmark cost of debt that is unaffected by parent support or credit wrapping.
- In addition, the use of AAA credit-wrapped securities to determine the margin will result in a significant and illusory reduction in the apparent cost of debt. In particular, it would not produce a realistic estimate of the cost at which a regulated entity could issue new debt without some form of credit support. We note that the Discussion Paper canvases the possibility of compensating for these distortions by providing an allowance for credit wrapping costs in the estimate of efficient operating expenditure. However, we do not consider this approach to be practicable as it would necessitate the estimation of a benchmark credit wrapping cost allowance. This would be particularly problematic because credit wrapping is no longer available following the onset of the global financial crisis.
- In relation to the set of utilities securities examined by IPART, page 16 of the Discussion Paper notes:

"IPART also recognises that the range of companies in the utilities group is still quite diverse. Most companies in this industry group do engage in non regulated activities but IPART considers that there is little scope to narrow the set of securities further as it would diminish an already small set of comparators."

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<sup>6</sup> Further comments on the term structure of interest rates are set out in section 2.4 of this submission.

We agree that the set of utilities stocks listed in the Discussion Paper constitutes a small set of comparators. We note that that the selection of those particular utilities stocks reduces considerably - and unnecessarily- the pool of securities from which the benchmark borrowing cost can be estimated. As noted in further detail in section 4 below, a more robust approach would seek to establish a benchmark borrowing cost with reference to the largest possible set of valid data.

In light of the discussion set out above, we consider that there is certainly no sound basis on which to conclude that the small sample of utilities stocks listed in Table 4.3 and Appendix D of the Discussion Paper is more reflective of the benchmark borrowing cost than the wider group of BBB to BBB+ rated corporate entities.

### **2.3 The relevance of credit ratings**

The approaches suggested in the Discussion Paper imply a very significant reduction in the weighting to be given by IPART to credit ratings in the determination of a benchmark cost of debt for regulated utilities. Indeed, page 9 of the Discussion Paper states:

“IPART is concerned that its current methodology is purely driven by the target credit rating and the term to maturity and does not adequately take into account industry specific factors.”

IPART’s view is somewhat at odds with the Discussion Paper’s explanation (in section 5.5.1) of the qualitative and quantitative factors that rating agencies consider when making a credit rating decision. Indeed, page 36 of the Discussion Paper states:

“Moody’s assigns the lowest business risk to a company with wholly regulated activities in a supportive regulatory framework. The highest business risk will be a company with a high degree of exposure to non-regulated businesses when those businesses are viewed to be relatively high-risk.

Moody’s states that the importance of ratio analysis can be overstated. In general, for electric utilities, other factors may outweigh financial ratios:

- degree of likely support from a sovereign
- degree of development of regulatory system
- political risk, and
- corporate governance.”

On the basis of the explanation provided in section 5.5.1 of the Discussion Paper, it would appear that credit ratings do in fact closely reflect a range of company-specific and sector-specific factors (including the prospect of support being provided by owner Governments). The case for reducing the weight placed on credit ratings by IPART in its decision-making therefore appears to lack a sound foundation.

In addition, we also note that it is difficult to draw any firm conclusions from the data presented in Figure 5.2 of the Discussion Paper without examining the characteristics of each individual stock in the sample. The individual stocks may all have different maturities, and it is likely that some of the stocks are floating rate bonds. It also possible that particular outliers in some rating categories have influenced the pricing observed for those categories. It is certainly not valid to assume that the Bloomberg data presented in Figure 5.2 is representative of where markets are generally pricing credits based on their credit ratings, particularly given the very thin trading that characterises those markets. Indeed, as already noted care must be taken in interpreting Bloomberg data under the market conditions prevailing in a global credit crisis.

In relation to the question of the on-going applicability of a benchmark credit rating, IPART is no doubt aware that the AER has recently concluded its review of WACC parameters for electricity network businesses in the National Electricity Market. In concluding its position on the benchmark credit rating to be used in determining the cost of debt allowance, the AER's final decision stated<sup>7</sup>:

"The AER is not persuaded at this time that the previously adopted credit rating of BBB+ should be departed from. The AER notes that in order for it to be persuaded otherwise, a departure must be clearly supported by the most recent empirical evidence. Rather the evidence is mixed, with the median analysis suggesting A- is reasonable, while other approaches suggest a credit rating of BBB+.

The AER considers the credit rating of BBB+ will generate a return on debt that reflects the current cost of borrowing for comparable debt.

The AER has also taken into account the revenue and pricing principles in determining the credit rating of BBB+."

On the basis of the foregoing, the Victorian DBs consider that credit rating information should continue to be accorded substantial weight in regulatory decision-making on the cost of debt allowance, and a benchmark credit rating of BBB+ remains appropriate.

## 2.4 Taking account of the term structure of interest rates

Appendix A of the Discussion Paper contains a brief (4 page) memo from Erik Schloegl on the estimation of the interest rate term structure of corporate debt. The Victorian DBs are interested in this matter, as it is relevant to the AER's estimation of the debt risk premium under the NER. However, it is very difficult to comment on the detail because the Schloegl memo does not provide a description of the proposed model, although it cross-refers to journal articles and university working papers that presumably set out the pertinent details. Page 26 of the Discussion Paper states that Erik Schloegl is expected to deliver his final report and a model to IPART (which will provide a term structure adjustment which could be used instead of the fair yield curve) in early July 2009. We suggest that it would be reasonable for IPART to provide some time to review and consult on this model prior to the publication of its final decision (which is presently scheduled for 10 July 2009).

## 3 Use of Bloomberg fair yield estimates

The Discussion Paper states IPART's intention to use the Bloomberg 8-year BBB fair yield curve, noting that CBA Spectrum data are no longer available and that IPART therefore has to switch to another data provider for its debt margin estimate. Page 10 of the Discussion Paper states that IPART proposes to use Bloomberg because:

- "The Bloomberg service has been thoroughly reviewed by other regulators, regulated business and consultants (including NERA and the Allen Consulting Group).
- Other regulators, such as the AER, already use Bloomberg."

In relation to fair value curve estimates, page 16 of the Discussion Paper goes on to state:

"It may be argued that the fair value curve provides a biased estimate of the yield of a BBB rated business. For example in the recent past, the fair value curve yields have consistently been higher than the yields used by IPART in its debt margin decisions. This has meant that in many decisions, the fair value curve was the source of the upper bound of the debt margin

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<sup>7</sup> AER, *Final decision: Electricity Transmission and Distribution Network Service Providers - Review of the Weighted Average Cost of Capital (WACC) Parameters*, May 2009, page xviii.



range. Bloomberg also does not disclose the algorithm used in the calculation of the fair value curve.”

In their 1 June 2009 joint submission to the AER, the Victorian DBs undertook a detailed examination of the robustness of Bloomberg fair yield estimates for use in regulatory decision-making on the debt risk premium for Advanced Interval Metering (AMI) services.

Under conditions of credit market stability, the outputs (namely predicted market yields) of fair yield models such as the Bloomberg model would be expected to provide a good guide to bond pricing. However, under the abnormal market conditions prevailing over the measurement period prescribed for the Victorian AMI price review, the Victorian DBs found that:

- Present credit market conditions have led to considerable difficulties in the interpretation of the market yields predicted by all credit cost models, including in particular the Bloomberg fair market curve model which has been used by the AER in its most recent decisions.
- In the absence of a directly observable benchmark, the derivation of a benchmark for Australian 10 year corporate bond rates is an exercise that unavoidably entails subjectivity, and should be guided by the exercise of reasonable discretion.

In relation to the use of Bloomberg fair yield curves, the Victorian DBs found that over the period from 17 November to 5 December 2008 inclusive (the measurement period prescribed for the purpose of the Victorian AMI price review):

- There were issues associated with the way in which the Bloomberg fair yield curves are constructed in terms of: the bonds used; the generic prices used; and the method for extrapolating the curve to longer maturities.
- The Bloomberg curves substantially under-estimate the yield on new bond issues.
- Most importantly, during the prescribed measurement period for the AMI price review, the Bloomberg fair yield curves predict yields for long-dated BBB bonds that are systematically and substantially lower than those directly observed or predicted by a number of other credible market-based data sources.

On the basis of these observations, the Victorian DBs concluded that under the particular credit market conditions that existed during the measurement period prescribed for the AMI price review, the Bloomberg fair yield curves were not fit for the purpose of the AER’s determination of the debt risk premium.

IPART’s observations regarding the Bloomberg data - namely, that the fair value curve provides the upper bound of the debt margin range - appear to apply to a period some years ago, and certainly well before the onset of the present global financial crisis. We note that the facts and analysis presented in the Victorian DBs’ submission regarding the cost of debt over the measurement period prescribed for the purpose of the Victorian AMI price review do not corroborate IPART’s view.

#### **4 Victorian DBs’ proposed approach to estimating the debt risk premium**

In view of the considerations noted above, the Victorian DBs advocated that the benchmark debt margin for regulatory purposes should reflect, and be consistent with:

- any directly observable yields on long-dated Australian corporate bonds during and around the time of the relevant measurement period, and in particular any bonds issued at around that time;
- reasonable views based on market evidence regarding the term structure of Australian corporate bond yields at the benchmark credit rating of BBB+; and
- reasonable views based on market evidence regarding credit spreads (that is, the sensitivity of yields to variations in credit ratings) of non-bank Australian corporate bonds of the same maturity.

In their joint submission to the AER, the Victorian DBs proposed a debt risk premium which did not rely on Bloomberg fair yield estimates. The benchmark proposed by the Victorian DBs was corroborated with reference to a variety of other objective market data, including:

- data published by the Reserve Bank of Australia on spreads for one to five year BBB corporate bonds, which showed the estimated margin on such bonds over the Commonwealth bond yield has in recent months been in the range of approximately 400 to 530 basis points;
- recent long-dated US bond issues by Australian non-bank corporates swapped back to Australian dollars;
- all known other Australian company 10-year BBB / BBB+ / A- / A-rated new bond issues occurring near the time of the prescribed measurement period; and
- a total of approximately 55 different 5-year and 10-year BBB bonds issued in the US over November and December 2008, swapped back to Australian dollars.

## 5 Conclusion

The analysis underpinning the proposals set out in the IPART Discussion Paper appears to be based on a small set of observations made over a very short (20-day) period in the midst of a global financial crisis, and therefore at a time of extreme illiquidity and volatility in credit markets. In addition, IPART's analysis seeks to compare data relating to bonds with different maturities and credit ratings without making any adjustments for the term structure of bond yields or credit spreads.

Given the present highly unusual debt market conditions, and given that IPART is developing a methodology for regulatory decision-making over the longer term, we suggest that IPART should be seeking to examine the broadest possible set of valid data. This will ensure that the development of IPART's policy on estimating the benchmark cost of debt is soundly based. We do not consider that the data and analysis presented in the Discussion Paper provides a sound foundation for the development of IPART's policy in this area.

In contrast, the approach adopted by the Victorian DBs in their recent submission to the AER on the debt risk premium for AMI services was adopted because of limitations associated with the use of fair yield models (such as the Bloomberg model) under the particular and abnormal market conditions prevailing in late November and early December 2008 - the measurement period prescribed for the AMI price review.

In these circumstances, our approach sought to draw on the largest possible data set from domestic and international markets. Our approach applied appropriate market-based adjustments to enable valid use of floating rate and short-dated bonds, and to account for

credit spreads and the term structure of bond yields, to derive a robust benchmark estimate of the 10-year cost of debt for a BBB-rated corporate.

We suggest that IPART give consideration to such an approach and we encourage IPART to carefully examine the analysis and findings of the Victorian DBs' recent joint submission to the AER.