

21 June 2013

Mr. Warwick Anderson  
General Manager – Network Regulation Branch  
Australian Energy Regulator  
GPO Box 3131  
Canberra ACT 2601

Dear Mr. Anderson,

## **NSW DNSP Submission on the Rate of Return Guidelines – Consultation Paper**

The NSW Distribution Network Service Providers, Ausgrid, Endeavour Energy and Essential Energy (the NSW DNSPs) are pleased to provide the attached response to the AER's 10 May 2013 Consultation Paper on the Rate of Return Guidelines.

The NSW DNSPs consider that both the cost of equity and the cost of debt should be measured in a way that minimises volatility in regulated revenues and consequently consumer prices over time. This is in the interests of both consumers and regulated businesses as it minimises the impact of short term volatility in the market, thereby promoting efficient investment decisions and stable prices for consumers.

The NSW DNSPs' positions are detailed in Attachment 1 and summarised below.

### ***Cost of debt***

- We support the adoption of a trailing average approach to setting the cost of debt and commend the AER for recognising the long term benefits of a trailing average approach for both consumers and regulated energy network businesses. To maximise the benefits of the trailing average approach to setting the cost of debt, it is necessary to incorporate annual updates;
- Annual updates provide strong incentives for regulated businesses to issue debt annually on a staggered basis, because this practice would reduce divergence from the annually updated allowed cost of debt, thereby removing a potential disincentive to invest should actual and allowed costs of debt diverge during a regulatory period; and
- Throughout previous regulatory frameworks and the Global Financial Crisis (GFC), the NSW DNSPs have managed their debt on an efficient trailing average basis. As a result, the NSW DNSPs do not need transitional arrangements to move to a regulated cost of debt to implement the trailing average.

### ***Cost of equity***

- We consider that the AER should examine the final outcome of applying any estimation models to ensure that it is consistent with all of the relevant evidence, including investors' expectations of reasonable equity returns. This should avoid an outcome

where individual parameters within a single estimation model are examined in detail, but when combined provide an unrealistic cost of equity. Further, the cost of equity should be set in such a way that minimises volatility in regulated revenues and consequently consumer prices over time;

- When estimating the cost of equity using the Capital Asset Pricing Model (CAPM), a long term estimate of the risk free rate should be combined with a long term estimate of the market risk premium (MRP). This is an internally consistent approach, particularly when combined with a trailing average approach to the cost of debt, and should provide stability in the regulated return on equity over time;
- Evidence obtained from Mr Bob Officer at Value Adviser Associates (VAA) strongly suggests that the AER's reliance on a 6% MRP underestimates the current expected MRP as 6% is largely influenced by the historical record and includes a period before the introduction of an imputation tax. In addition, the current risk spreads in the capital market have risen since the GFC pointing to the equity risk premium rising above historic levels; and
- It is a fundamental principle that the cost of equity for a company is higher than the cost of debt because in the event of a liquidation debt holders have preference over equity holders to access residual capital. When estimating the cost of equity, regard should be given to maintaining the relative risk spread on debt and equity. A disjoint between the two is in conflict with evidence indicating the equity risk premium should at least mimic changes in debt, with an increase in market risk premium applying to equity and debt, not just debt alone.

The NSW DNSPs are of the view that the AER's current approach to forecasting inflation and setting allowed debt and equity raising costs remains appropriate.

I note that this submission has been supported by analysis undertaken by the Energy Networks Association (ENA) and in this regard we support the key positions outlined in the ENA's response to the AER's Consultation Paper.

If you would like to discuss this matter further, please contact Mr Mike Martinson, Group Manager Network Regulation at Networks NSW on (02) 9249-3120 or via email at [michael.martinson@endeavourenergy.com.au](mailto:michael.martinson@endeavourenergy.com.au).

Yours sincerely,

P. P. 

Vince Graham

**Chief Executive Officer**

**Ausgrid, Endeavour Energy and Essential Energy**

Attachments:

1. NSW DNSP Response to the AER's Rate of Return Guideline Consultation Paper



## ATTACHMENT 1 - NSW DNSP RESPONSE TO THE AER'S RATE OF RETURN GUIDELINE CONSULTATION PAPER

### COST OF DEBT

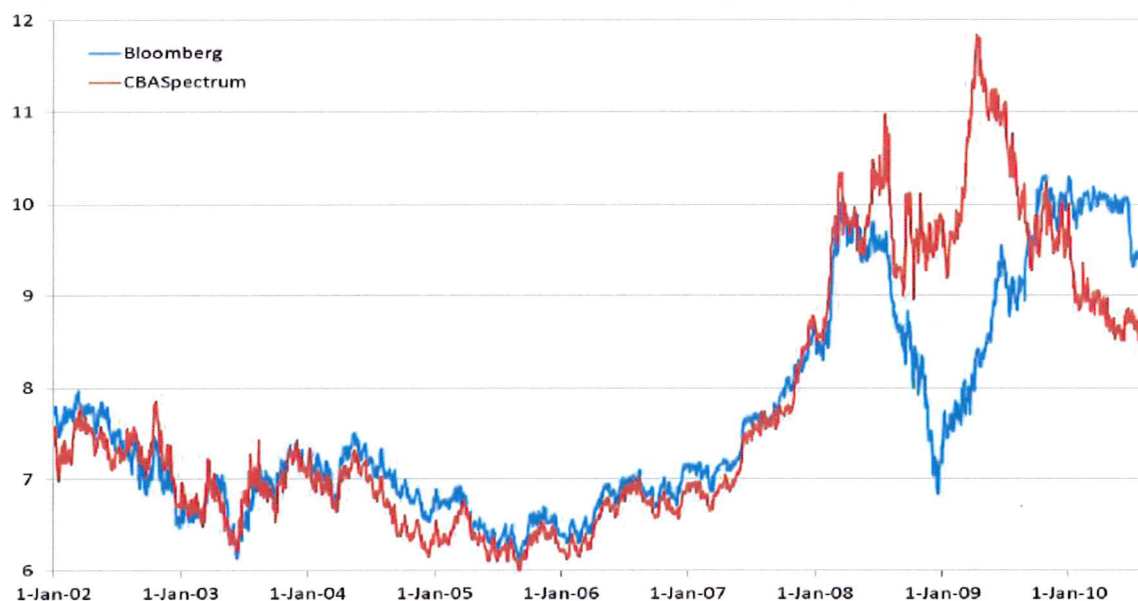
The NSW DNSPs support the adoption of a trailing average approach with annual updates to setting the cost of debt and commend the AER for recognising the long term benefits of a trailing average approach for both consumers and regulated energy network businesses. We also support the adoption of a benchmark term to maturity of 10 years with equal weighting for each year in the measurement period.

### BENEFITS OF THE TRAILING AVERAGE APPROACH

In the long term, a trailing average approach to setting the cost of debt is the most prudent and efficient debt management practice for infrastructure businesses with large debt portfolios and assets with long economic lives. Maintaining a staggered debt portfolio significantly reduces refinancing risks and smooths the impact of volatile changes in the cost of debt through time.

These two benefits of a staggered debt portfolio were highlighted following the GFC when the corporate bond market became illiquid and the cost of debt increased to historic highs while exhibiting significant volatility starting around 2008 (as illustrated in Figure 1). Businesses with high exposure to short term volatility in debt markets, as suggested by the 'on the day' approach to raising debt, were either unable to refinance their debt portfolios or faced significant cash flow difficulties during the post-GFC volatility depicted below.

**Figure 1: Cost of debt fair value curves – increased volatility following GFC.**



Source: CEG, Efficiency of staggered debt issuance, February 2013, p. 27.

### *Reduces exposure to short term volatility in debt markets*

As outlined by the AER, a trailing average approach to setting the allowed cost of debt would smooth volatile movements in the allowed cost of debt over time.<sup>1</sup> For consumers, the trailing average approach with annual updates would mean that, in any one year, only about 10% of the allowed cost of debt would change and flow through to the prices paid by consumers.

This emphasis on stability was expressed by customer representatives at the AER's workshops on the cost of debt (3 June 2013) and the cost of equity (4 June 2013) and was supported by the Public Interest Advocacy Centre (PIAC) which noted the following in their submission on the Rate of Return Issues Paper:

***"Consumer interest** – the option should support long-term consumer interests. We take this to mean that prices should be sustainable, i.e. at efficient levels so that services are provided in the long-term without windfall gains for companies. Further, price predictability is often an important concern, especially when the charge is a significant element of the final price."*<sup>2</sup>

For regulated businesses, the trailing average approach would adjust regulated revenues to incorporate changes in the efficient cost of debt over time. If in any one year the cost of issuing debt is much higher or lower than average it would only be given about 10% weight in the overall cost of debt estimate feeding into regulated revenues.

The trailing average approach with annual updates to setting the cost of debt is a significant improvement from the 'on the day' approach. Under the 'on the day' approach, the entirety of a regulated business's allowed cost of debt is exposed to short term changes in the cost of debt because the prevailing yield on corporate debt is locked in for a full five year regulatory period. As a consequence, if the prevailing cost of debt is far below efficient debt costs, regulated businesses may be forced to consider either a cut in services or a deferral of efficient capital investment. If the prevailing cost of debt is far above efficient debt costs, regulated businesses are over-compensated and this inefficient cost flows through to consumer prices. Neither of these outcomes is commensurate with the long term interests of consumers, which is required by the National Electricity Objective.<sup>3</sup>

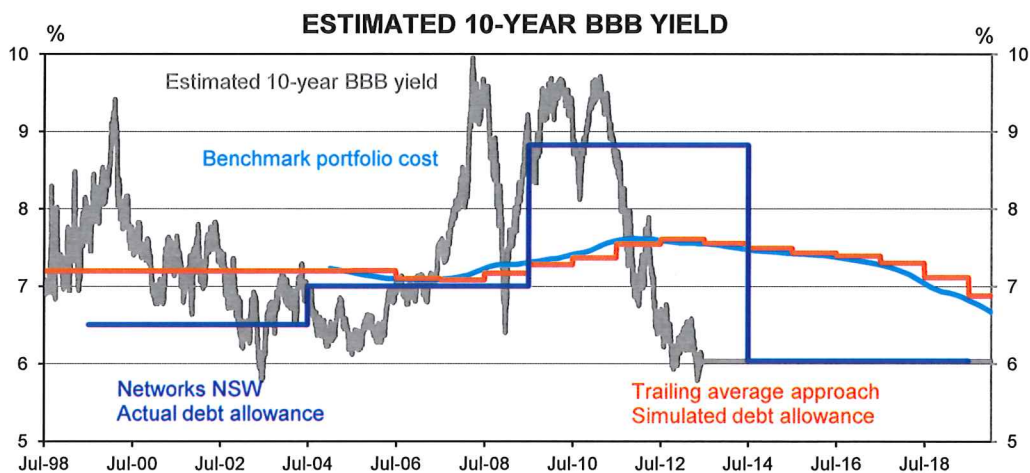
Figure 2 illustrates the benefits of the trailing average approach over the 'on the day' approach. Under the 'on the day' approach, the regulatory benchmark cost of debt is measured over a short trading window and locked in for the entire regulatory period. In the past, this has caused significant shocks in the allowed cost of debt between regulatory periods (the dark blue line). The trailing average approach would implement a regulatory benchmark (the light blue line) that moves more slowly over time to reduce exposure to short term volatility in debt markets. Under the trailing average approach, the allowed cost of debt would track the benchmark efficient cost of debt on a trailing average basis (the orange line).

<sup>1</sup> AER, Rate of return consultation paper, May 2013, p. 54.

<sup>2</sup> PIAC, Submission to the AER's Issues Paper – Rate of return guidelines, February 2013, p.15.

<sup>3</sup> National Electricity (South Australia) Act 1996, section 7.

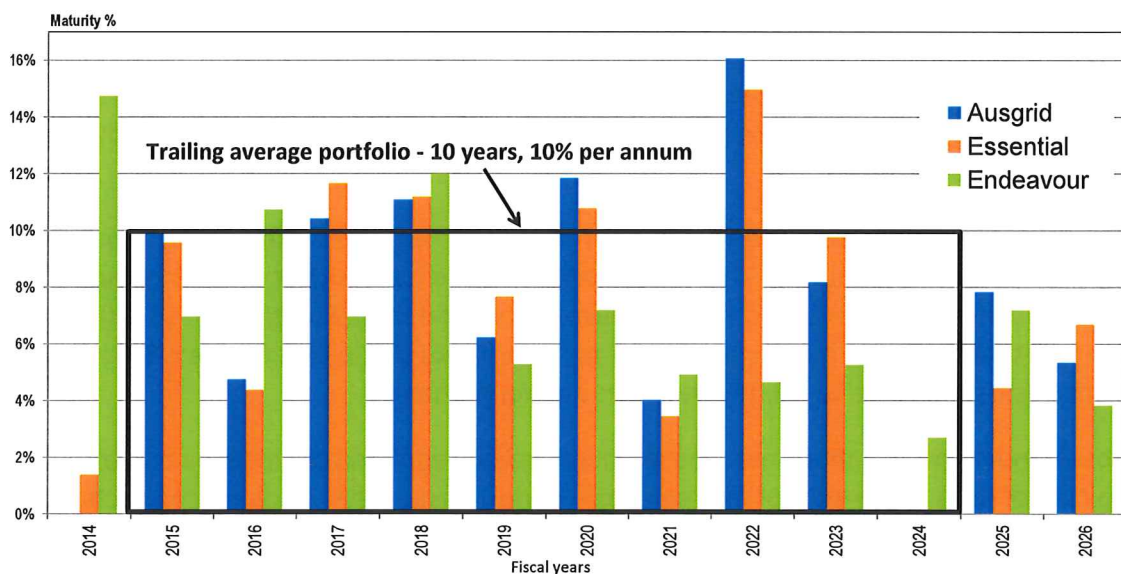


**Figure 2: Benchmark debt costs under 'on the day' v trailing average approach**

Source: NSW TCorp analysis

***Can be implemented – provides more effective incentives to manage debt efficiently***

An additional benefit of the trailing average approach over the 'on the day approach' is that network businesses are actually able to implement the approach in practice. Indeed the debt portfolios of Ausgrid, Endeavour and Essential Energy are already managed as staggered debt portfolios, as evident from Figure 3 below.

**Figure 3: NSW DNSPs Debt Maturity Profile**

The ability to emulate the benchmark debt management approach is essential to minimise the risk of significant mismatch between the regulatory cost of debt allowance and the regulated businesses' actual cost of debt. If the regulated businesses can engage in debt management practices that match the benchmark efficient approach, this provides a natural hedge to the regulatory benchmark. This is highly attractive for regulated network businesses, especially when debt markets are volatile. In turn, the desire to achieve a natural hedge ensures that regulated network businesses actually engage in the efficient benchmark debt management practice.

In contrast, it is not possible for large network businesses to prudently implement an 'on the day' debt management approach. For example, to implement the 'on the day' approach, transmission and distribution businesses in NSW would need to hedge or refinance approximately \$22 billion of debt over a 10-40 day trading period close to a final determination. Debt markets, in our view are not liquid enough to actually raise that amount of debt in such a short period. Even if debt markets could refinance the debt portfolios in that short period of time, the business would face a significant mark to market cost.

In addition, debt financiers would take advantage of such a massive refinancing and would demand a significantly higher yield, which would ultimately result in higher prices for consumers. For these reasons, the trailing average approach is a significant improvement from the 'on-the-day' approach to setting the cost of debt.

### *It is the efficient practice of non-regulated infrastructure businesses*

Throughout the rule change process, the AEMC noted that the long-term interests of consumers would be best served by ensuring that the method used to estimate the cost of debt reflects efficient risk management practices that might be expected in the absence of regulation.<sup>4</sup> In our previous submissions we outlined that the efficient debt management practice of non-regulated infrastructure firms is to issue debt on a staggered basis, and this can be seen from the debt maturity profiles of Sydney Airport and Transurban.<sup>5</sup>

## ANNUAL UPDATES

To maximise the benefits of the trailing average approach to setting the cost of debt, it is necessary to incorporate annual updates. Annual updates provide strong incentives for regulated businesses to issue debt annually on a staggered basis, because this practice would reduce divergence from the annually updated allowed cost of debt, thereby removing a potential disincentive to invest should actual and allowed costs of debt diverge during a regulatory period.

Further, annual updates significantly reduce refinancing risk and it extracts the most efficient cost of debt from debt markets. This is due to the relative size of debt parcels being refinanced in any one year being small relative to the total market compared with the challenges of refinancing a debt portfolio of approximately \$22 billion for the NSW electricity network businesses in a 10-40 day period in an illiquid market.

Without annual updates there remains an incentive for regulated businesses to attempt lock in the cost of debt at the start of the regulatory period using either hedging contracts or by refinancing debt portfolios. This would reduce the ability for consumers to gain a benefit when the cost of debt decreases. In addition there is a very significant mark to market cost for entities like the NSW DNSPs which operate a trailing average approach to debt management, with many fixed interest lines of debt having to refinance in order to move to a fully hedged portfolio over a short period of time.

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<sup>4</sup> AEMC, Final position paper: National electricity and gas rule changes, 15 November 2013, p. 57.

<sup>5</sup> NSW DNSP submission on the rate of return guideline – Issues Paper, 18 February 2013, p. 9. See also CEG, Efficiency of staggered debt issuance, February 2013, pp. 31-32. Available at <http://www.aer.gov.au/node/18859>.



For regulated businesses that continue to issue debt annually on a staggered basis, the regulatory allowance would only incorporate the historic cost of debt without annually updating to incorporate changes in the cost of debt. If the efficient cost of debt increased during the regulatory period, the regulated business would have to wear this cost.

Annual updates would ensure that changes in the efficient cost of debt are reflected in regulated revenues throughout the regulatory period, which is in the interests of both regulated network businesses and consumers. As illustrated previously by the orange line in Figure 2 (above), if the cost of debt increases over time, annual updates smooth the effect of this on regulated cost of debt allowances.

This ensures that at the end of a regulatory period, consumers do not face price shocks due to changes in the cost of debt from one regulatory period to the next; rather, the impact is smoothed throughout each year of a regulatory period. This approach also ensures there is a lower risk of a windfall gain or loss to network businesses from mismatches between the allowed and actual cost of debt.

## EQUAL WEIGHTED PORTFOLIO

The NSW DNSPs agree with the AER that the trailing average cost of debt should be calculated as a simple, equal weighted average. This avoids complex weightings based on existing debt or forecast debt in the post-tax revenue model. As noted by the AER, weighting each year's cost of debt estimate based on actual or forecast debt issued in that year results in greater chance of estimation error.<sup>6</sup> A simple equal weighted average reduces the risk of estimation error when setting the allowed cost of debt.

## TRANSITION TO A TRAILING AVERAGE APPROACH

Transitional arrangements are required when regulated businesses face difficulty adjusting their current practices to respond to a change in regulatory framework.

The current debt management practices of the NSW DNSPs, however, are already consistent with the benchmark efficient debt practice of issuing debt on a staggered basis, with portions of debt refinanced each year. As a result, transitional arrangements are not required for these businesses.

### *Transitional arrangements would create investment distortions for the NSW DNSPs*

In its final position paper on the electricity and gas rule changes, the AEMC noted that incentives for efficient capex are stronger when the difference between the allowed cost of debt and the actual debt servicing costs of the regulated network service provider is minimised. The AEMC also noted SFG's advice that the regulatory framework should seek to minimise distortions in financing practices and distortions in the incentives to undertake efficient capex.<sup>7</sup>

Moving the NSW DNSPs directly onto the trailing average cost of debt approach would match the regulatory approach with the efficient debt management approach that these

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<sup>6</sup> AER rate of return consultation paper, May 2013, p. 113.

<sup>7</sup> AEMC, Final position paper: National electricity and gas rule changes, 15 November 2013, pp. 57-58.

businesses already engage in.<sup>8</sup> In the past, the ‘on the day’ approach created a significant mismatch between the efficient debt management practices of network businesses and the regulatory benchmark approach. No regulated businesses that we are aware of actually refinanced their entire debt portfolios at the start of a regulatory period, resulting in an inability to manage debt costs to the regulatory benchmark.

If the NSW DNSPs were transitioned to the trailing average approach using a mix of ‘on-the-day’ and the trailing average approach, this would preserve the inefficient mismatch between the regulatory cost of debt approach and the efficient benchmark debt management practice during the transition period. This is not in the long-term interests of consumers or regulated businesses.

### ***Transitional arrangements could prevent businesses from recovering their efficient costs***

In its consultation paper on transitional arrangements, the AEMC noted that transitional arrangements should allow service providers to recover their efficient costs,<sup>9</sup> which is consistent with the revenue and pricing principles in the National Electricity Law.<sup>10</sup> For the NSW DNSPs, current debt costs match the efficient cost of debt as estimated by the trailing average approach. Therefore, for the NSW DNSPs, the revenue and pricing principles are best met by immediately transitioning to the trailing average approach to setting the cost of debt.

Transitional arrangements that start with a cost of debt allowance estimated using the ‘on the day’ approach and transition to an allowance estimated using the trailing average approach would likely prevent the NSW DNSPs from recovering their efficient cost of debt during the transition period.<sup>11</sup> If corporate bond yields are below long term levels just prior to the NSW DNSPs regulatory determinations, transitional arrangements such as those suggested by Queensland Treasury Corporation (QTC) would in fact materially under-compensate NSW DNSPs over the transition period relative to the efficient benchmark.

Analysis undertaken by the NSW DNSPs suggests that based on month average corporate bond yields over May 2013, a transition to the efficient portfolio approach using the QTC methodology would under-compensate NSW DNSPs by approximately \$86m per \$1bn of notional debt (over a period of 10 years). With a debt portfolio of approximately \$19bn, the NSW DNSPs would receive regulated revenues approximately \$1.6bn below the efficient cost of debt based on the portfolio approach.

<sup>8</sup> We note that the approach will not lead regulated businesses incurring exact same actual debt costs as set by the regulator. However, strong incentives would be in place to follow the benchmark practice of maintaining a trailing average of debt rather than incentives to hedge or refinance large portions of debt at the time of a regulatory determination.

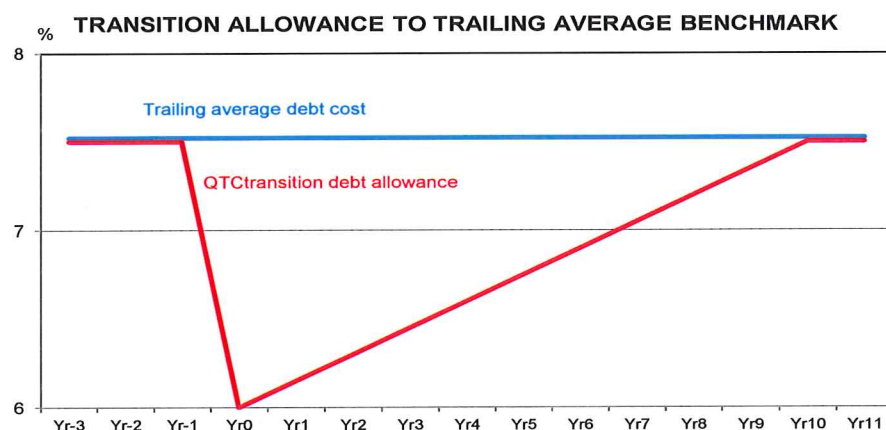
<sup>9</sup> AEMC, Consultation paper on savings and transitional arrangements, 14 September 2013, p. 7.

<sup>10</sup> National Electricity (South Australia) Act 1996, Section 7A.

<sup>11</sup> This is based on current forecasts of yields on 10 year corporate debt, which are below long term average levels.



**Figure 4: Under-compensation from 'on the day' starting point transition using the QTC transition for NSW DNSPs**



Source: NSW TCorp analysis

The NSW DNSPs are particularly concerned by the transitional approach suggested by the ACCC in its paper 'Estimating the cost of debt: A possible way forward'.<sup>12</sup> The ACCC paper suggests setting the cost of debt using forward looking estimates of the yields on 1 year, 2, year, 3 year... up to 10 year corporate bonds in the first year and then transitioning businesses onto the trailing average.<sup>13</sup> This approach is not a transition path from current regulatory practice, but is in fact a move to a new approach as a starting point. It is neither the previous 'on the day' approach assuming a 10 year term to maturity for the entire debt portfolio, nor is it the trailing average approach assuming a 10 year term to maturity for debt issued.

Assuming the yield curve for corporate debt is upward sloping<sup>14</sup>, this transition arrangement would materially under-compensate regulated businesses who have already issued 10 year debt consistent with benchmark efficient practice. It is inappropriate to ignore the existing debt portfolios for the businesses when considering the a move to the portfolio approach.<sup>15</sup> For this reason, the transitional approach as outlined in the ACCC paper is not appropriate for the NSW DNSPs.

<sup>12</sup> ACCC, Estimating the cost of debt: A possible way forward, April 2013, pp. 45-48.

<sup>13</sup> This assumes the benchmark efficient term to maturity for debt is 10 years, which is consistent with what is observed in practice.

<sup>14</sup> That is, longer term debt is more expensive than shorter term debt for the business. This is a reasonable assumption because debt holders are likely to charge a premium for bearing default risk over a longer period of time.

<sup>15</sup> TCorp has advised that based on month average corporate bond yields over May 2013, this approach would under-compensate NSW DNSPs approximately \$110 million per \$1 billion of notional debt over a period of 10 years, or approximately \$2bn across the three businesses.

## COST OF EQUITY

The NSW DNSPs broadly support the ENA's position on the cost of equity and we believe that the cost of equity should be considered holistically. We consider that the AER should examine the final outcome of applying any estimation models to ensure that it is consistent with all of the relevant evidence, including investors' expectations of reasonable equity returns. This should avoid an outcome where individual parameters within a single estimation model are examined in detail, but when combined provide an unrealistic cost of equity.<sup>16</sup>

The NSW DNSPs consider that both the cost of equity and the cost of debt should be measured in a way that minimises volatility in regulated revenues and consequently consumer prices over time. This is in the interests of both consumers and regulated businesses as it minimises the impact of short term volatility in the market thereby promoting efficient investment decisions and stable prices for consumers. We have also received advice from VAA which suggests that investors in infrastructure businesses expect stable returns on equity over time.

### *Equity investors expect stability in returns over time*

Evidence suggests that infrastructure investors value stability of returns over time over a higher return that varies significantly between periods<sup>17</sup>. VAA have advised that equity investors tend to heavily rely on past equity returns to form their expectations of what the return on equity will be in the future. A survey of Australian valuation professionals supports this view, as the majority of participants regard the equity market risk premium as a long term measure.<sup>18</sup>

CEG (on behalf of ENA) has also provided analysis which highlights that the expected cost of equity using a method applied by AMP to determine the market risk premium combined with prevailing yields on 10 year Commonwealth Government Bonds implies a fairly stable cost of equity over time, outside of the GFC impact that caused a spike in returns in 2009. This is illustrated in Figure 5 below.

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<sup>16</sup> For example, an overall cost of equity that is lower than the estimated cost of debt for a benchmark business would be an unreasonable outcome.

<sup>17</sup> Aswath Damodaran, *Equity Risk Premiums: Determinants, Estimation and Implications – A post crises Update*, October 2009, p. 14.

<sup>18</sup> KPMG, *Valuation Practices Survey*, 2013, p.18.



**Figure 5: Return on equity using AMP method for market risk premium**

Source: CEG, Internal consistency of risk free rate and MRP in the CAPM, February 2013, p. iv.

### **Setting the cost of equity under the new rules**

The NSW DNSPs note that under the previous Rules, the Sharpe-Lintner CAPM<sup>19</sup> was specified as the single model to be used by the AER to estimate the cost of equity. The cost of equity was separated into an estimate of the risk free rate, the market risk premium and the equity beta parameters, specified as:

$$\text{Cost of equity} = \text{risk free rate } (R_f) + \text{equity beta } (\beta_e) \times (\text{return on the market } (R_m) - (R_f))$$

This forced the AER to focus on separately estimating each parameter within the CAPM, rather than on the overall cost of equity produced. A mismatch in the time period used in recent determinations to estimate the market risk premium and risk free rate means the cost of equity will exhibit a bias toward changes in the risk free rate<sup>20</sup>. An internally consistent approach would produce a better estimate by having regard to the implied negative relationship between these two parameters.

Under the new framework, the Rules require the AER to have regard to all relevant estimation methods, financial models, market data and other evidence when setting the allowed cost of equity.<sup>21</sup> This places a clear focus on ensuring the overall return on equity is reasonable and efficient. This suggests the market risk premium should be calculated by reference to the expected market return and zero beta asset, rather than using it as an 'input' to determine the expected market return. Applying a constant market risk premium as an input to the CAPM equation, when combined with a spot risk free rate, would be inconsistent with both the historical equity returns observed in Figure 5 and investor expectations of the future.

### **Applying the CAPM post GFC**

Since the GFC there has been a significant drop in 10 year Commonwealth Government Bond yields, which is consistent with the expectation that investors move away from risky investments into more stable options such as government bonds following a financial crisis. It is easy to measure the current yields on 10 year Commonwealth Government Bonds and

<sup>19</sup> Within this submission we refer to the Sharpe-Lintner version of the CAPM simply as the 'CAPM'.

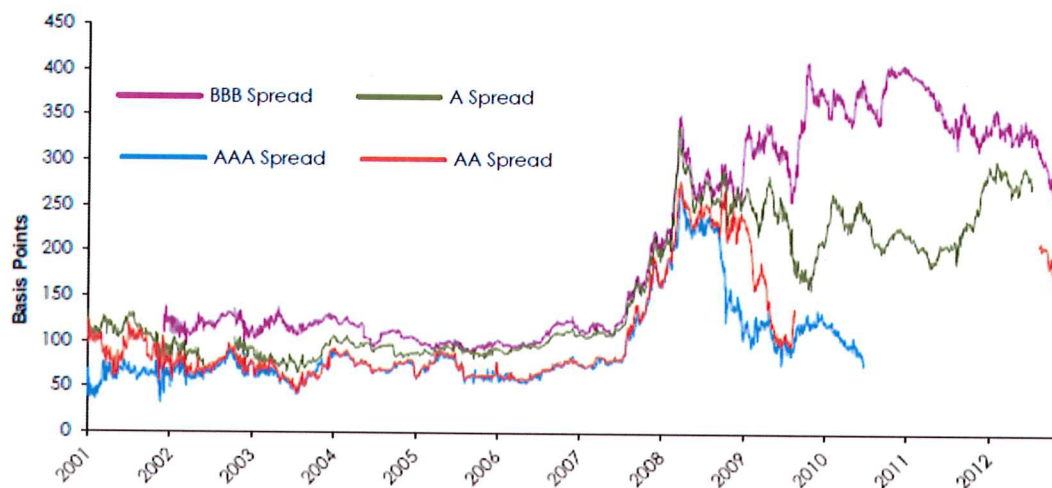
<sup>20</sup> VAA, Commentary on Market Risk Premium and Debt Risk Premium.

<sup>21</sup> National Electricity Rules, clause 6.5.2(e).

use this as the estimate of the 'prevailing' risk free rate. It is much more difficult to estimate the current risk premium being demanded by investors to invest in equities as opposed to safe government bonds<sup>22</sup>.

Following the GFC, risk premiums being demanded by investors for risky assets have increased significantly. This is illustrated by a number of measures including the spread of corporate bond yields above the 10 year Commonwealth government bond rate as outlined in Figure 6 below.

**Figure 6: Debt risk spread on 7 year Corporate Bonds over 10 Year Commonwealth Bonds**



Source: VAA, Commentary on Market Risk Premium and Debt Risk Premium

VAA advise that it is reasonable to expect that the risk spread for equity has also increased since 2008 and remains at an elevated level.

### ***Maintaining a spread between the cost of equity and the cost of debt***

It is a fundamental principle that the cost of equity for a company is higher than the cost of debt because in the event of a liquidation debt holders have preference over equity holders to access residual capital. The NSW DNSPs note that one method of ensuring the allowed return on equity is reasonable is to estimate the variance between the cost of equity and the cost of debt and checking whether this is consistent with the long term difference.

When estimating the cost of equity, regard should be had to maintaining the relative risk spread on debt and equity. A disjoint between the two is in conflict with evidence indicating the equity risk premium should at least mimic changes in debt. An increase in market risk premium applies to equity and debt, not just debt alone.<sup>23</sup>

VAA, drawing on the expertise of Mr Bob Officer, has advised that when financial markets become riskier, we would expect the difference between the cost of equity and the cost of debt to be at least the same as during stable market conditions. More likely we would expect that the difference would actually increase. Figure 7 highlights that adopting a constant long

<sup>22</sup> VAA commentary on Market Risk Premium and Debt Risk Premium.

<sup>23</sup> VAA Commentary on Market Risk Premium and Debt Risk Premium.



term market risk premium and combining this with prevailing yields on 10 year Commonwealth government bonds, provides an equity premium over the cost of BBB debt that appears to decrease following the GFC, which directly contradicts the market evidence.

**Figure 7: Debt spreads compared with a 6% MRP**



This is not consistent with what we would expect. For this reason, combining a long term market risk premium with the prevailing yields on 10 year Commonwealth Government Bonds is unlikely to provide a reasonable cost of equity under current market conditions.

### **NSW DNSP suggested approach going forward**

The NSW DNSPs support the AER assessing estimates from the range of relevant cost of equity models as well other relevant evidence. As part of this assessment, we recognise that the AER should consider estimates from the CAPM. Ideally, the cost of equity should reflect investor expectations of equity returns over the coming regulatory period. The difficulty, when applying the CAPM to this approach, is in determining the market risk premium since there is currently no commonly accepted method for estimating the market risk premium over a short term future period.

The NSW DNSPs support the ENA's view that the market risk premium and beta are not invariant values and should reflect changes in the expected market return. In particular, a fixed market risk premium (currently 6%) will require revision moving forward to reflect changes in the equity risk premium observed in recent years. VAA note that as the debt risk premium is currently above the pre-GFC average, and since there are no impediments to moving across debt and equity markets, it is expected that the market risk premium is also above the long run average.<sup>24</sup>

In summary, we suggest the AER adopt an internally consistent approach when applying the CAPM. This can be achieved by using a long term (i.e. 10 year) estimate of the risk free rate combined with an historical estimate of the market risk premium. We believe this approach would provide a cost of equity that is consistent with historical equity returns to investors and would provide relative stability over time.

<sup>24</sup> VAA Commentary on Market Risk Premium and Debt Risk Premium. Approaches used by VAA to measure short term market risk premiums demonstrate this to be the case.

Similar to the approach for estimating the cost of debt using a 10 year trailing average, the AER can use a 10 year average of the yields on 10 year Commonwealth Government Bonds to estimate the long term risk free rate. VAA have noted that this is one way of reducing measurement error when estimating the cost of equity when it is difficult to estimate the current market risk premium.<sup>25</sup>

We note that, as a cross check, applying a longer term estimate of the risk free rate produces a return on equity (for a one beta firm) that approximates the return on equity for the market as a whole of 10.9% as presented by AER staff at the 5 June 2013 return on equity workshop calculated using a well-accepted dividend growth model.

The NSW DNSPs support the ENA's submission that provides robust estimates of the cost of equity using a range of different cost of equity models. As highlighted above, we note that the CAPM applied using a long term estimate of the risk free rate as suggested above provides a cost of equity estimate that is broadly consistent with the evidence from the range of relevant cost of equity models and other evidence.

We also note that the range of evidence in the ENA's submission takes into account considerable information on the prevailing conditions in the market for equity funds.<sup>26</sup>

## INFLATION

The NSW DNSPs support the AER's current approach to estimating inflation. As outlined by the AER, the Reserve Bank of Australia (RBA) short term forecasts of inflation for 2 years forward and the mid-point of the RBA's target inflation range for 3 to 10 years forward provides a reasonable estimate of expected inflation over a 10 year time horizon.<sup>27</sup>

As outlined by the AER, the market for indexed Commonwealth Governments Bonds has become more liquid in recent years.<sup>28</sup> Therefore it may be possible to estimate expected inflation as implied by the difference between yields on nominal 10 year Commonwealth Government Bonds and indexed 10 year Indexed Commonwealth Government bonds using the Fisher equation. However, in the past the market for indexed bonds was illiquid,<sup>29</sup> which resulted in the AER moving to its latest approach to estimating inflation. Therefore, rather than relying solely on the Fisher equation approach, the NSW DNSPs support the AER checking its forecast of inflation using RBA forecasts with the forecast inflation estimated using the Fisher equation.

## DEBT AND EQUITY RAISING COSTS

Costs of raising debt and equity are material costs that are incurred by benchmark efficient regulated businesses and these costs should be compensated for in regulated revenues. The NSW DNSPs support the AER continuing its current practice of recognising equity

<sup>25</sup> VAA Commentary on Market Risk Premium and Debt Risk Premium.

<sup>26</sup> For example, the ENA's estimated cost of equity using the dividend growth model takes into account prevailing, forward looking estimates of dividend yields and forecast growth. The ENA's analysis also takes into account recent independent expert reports that outline their current forecast cost of equity.

<sup>27</sup> AER, Rate of return consultation paper, May 2013, p. 66.

<sup>28</sup> AER, Rate of return consultation paper, May 2013, pp. 66–67.

<sup>29</sup> AER, NSW DNSPs final decision, 2009-14 Distribution determination, April 2009, pp. 234-235.



raising costs as a capex line item and debt raising costs as an opex line item within the building blocks framework.

We do not agree with the AER's preliminary position that considerable resources are required to estimate debt and equity raising costs. We note that the ENA's submission incorporates reports from Price Waterhouse Coopers, which outline a practical approach to estimating benchmark efficient debt raising costs. The ENA submission also incorporates a report from Incenta, which outlines a practical approach to estimating benchmark efficient equity raising costs. These reports update and build upon the analysis that has been relied on by the ACCC and the AER since 2004<sup>30</sup> to estimate debt and equity raising costs.

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<sup>30</sup> ACG, Debt and equity raising transaction costs, final report, December 2004.

