

2013 – 2017 Gas Access Arrangement Review (GAAR)

SP AusNet's Revised Access Arrangement Proposal (RAAP)

RAAP Chapter 5: Rate of Return and Corporate Tax Allowance

Submitted: 9 November 2012

RAAP Chapter 5: Rate of Return and Corporate Tax Allowance

This chapter sets out SP AusNet's response to the amendments required by the Draft Decision relating to SP AusNet's rate of return (Chapter 7 and Attachment 4) and corporate income tax allowance (Chapter 11 and Attachment 8).

In the event of inconsistency between information contained in this chapter and SP AusNet's Access Arrangement Information (AAI), the information contained in this chapter supersedes the AAI.

1 Introduction

SP AusNet accepts many of the AER's cost of capital parameters, including the cost of debt, but firmly rejects the AER's estimated cost of equity.

- SP AusNet maintains its position in its Initial Access Arrangement proposal that there are two equally legitimate approaches in applying the CAPM to estimate the cost of equity:
 - Adopt 'spot estimates' of the risk free rate and Market Risk Premium (MRP); or
 - Adopt long-term averages of the risk free rate and MRP.
- The AER does not employ either method. Instead, the AER incorrectly takes the spot risk free rate from method 1 and the long-term average MRP from method 2. In the current market conditions, where the risk free rate is at an all-time low, the AER's method produces a cost of equity that is manifestly too low and inconsistent with the requirements of the NGR and NGL.
- The AER claims that its cost of equity estimate is genuinely forward-looking, and therefore is consistent with method 1. However, the AER is mistaken because:
 - The AER's estimate of the MRP reflects a long-term historic average, and it belongs to method 2. It is the same average adopted by the ACCC 14 years ago and applied almost continuously by the ACCC and AER ever since. Statements made by the AER in the 2009 WACC review explain that primary weight is given to the historic average MRP.
 - It is universally accepted that the spot MRP changes over time – yet the AER's estimate rarely changes. It is not a spot estimate, but it is combined with a spot risk free rate that changes on a daily basis.
 - The AER claims that its MRP estimate is made "as close as possible" to the start of the forthcoming regulatory period. This claim mirrors the language that the AER uses in relation to the risk free rate, which the AER intends to update at the time of the Final Decision. In contrast, however, the AER does not intend to update the MRP because the estimate is a long term average, not a spot rate.
 - The AER says that the MRP survey data supports its forward-looking estimate – yet the most recent survey cited by the AER is over 12 months

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

old and another survey cited by the AER is 7 years old. How can surveys that are 7 years old support a forward looking estimate “as close as possible” to the start of the regulatory period?

- The AER's own consultant, Associate Professor Lally, explains that the AER has done nothing more than look at historic data and survey information and should do more to establish a forward-looking estimate of the MRP. But, the AER has not done so.
- CEG has updated its report that SP AusNet submitted as part of its initial Access Arrangement Proposal. The updated analysis shows that the AER's cost of equity estimates are now even less credible than in March 2012. Both CEG and SFG Consulting conclude that the AER's estimate of the cost of equity is inconsistent with the following observable facts in the market:
 - The spread between low risk assets and the yield on CGS has increased as CGS yields have fallen.
 - Dividend yields have increased as CGS yields have fallen.
- CEG's updated analysis and SFG Consulting's analysis demonstrate that the AER's estimate of the cost of equity is in error.
- Mr Jeff Balchin of PricewaterhouseCoopers (PwC) examined the NGR and NGL provisions relating to the cost of capital. He concluded that if the regulatory rate of return is set below the true cost of capital, then the incentive and capacity for service provision over the long term would be imperilled. It is evident that the AER has not considered this issue in its Draft Decision.
- If there is any doubt that the AER's approach is in error, SP AusNet has obtained further expert opinions which draw from market evidence and regulatory practice in other jurisdictions.
- Ernst & Young has undertaken a comprehensive review of all independent expert valuation reports since 1 January 2008 to obtain market evidence on the cost of equity in Australia. These independent expert reports provide strong evidence because real-world transactions and investment decisions are made on the basis of such reports. In addition, the independent experts face obligations under the Corporations Law and therefore the views expressed should be regarded as the best available market evidence. The Ernst & Young report states that the information provided in the independent expert reports is the best publicly available market evidence to assess the prevailing cost of equity in the market for funds in Australia.
- The results from the Ernst & Young study provide compelling evidence that the AER's cost of equity estimate is too low. In particular:
 - The market cost of equity (assuming a beta of 1) has not fallen as dramatically as the AER's estimates. This finding is consistent with the view of the UK experts that the cost of equity is relatively stable.
 - In their valuation reports, the independent experts have recently changed their approach to estimating the risk free rate in response to the very low spot rates on 10 year CGS. This finding demonstrates that SP AusNet's

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

- proposed approach - of combining long-term averages of the risk free rate and MRP to estimate the cost of equity - is consistent with market practice.
- There is evidence that the independent experts have increased their MRP estimates as the yield on 10 year CGS has fallen below 4.5 per cent. This provides market-based evidence that the MRP and risk free rate are negatively correlated, at least for very low yields on CGS.
 - The Ernst & Young report concludes that the cost of equity estimated by the AER in the Draft Decision does not meet the requirements of Rule 87(1) of the NGR.
 - SP AusNet has obtained two independent expert opinions from UK finance professors. Professor Stephen Wright and Professor Alan Gregory are both highly respected UK academics who have advised the UK regulator, Ofgem, and the UK appeal body, the Competition Commission, on cost of capital issues. Both experts have concluded independently that:
 - UK regulators recognise that the cost of equity is relatively stable over time, in contrast to the spot risk free rate;
 - The AER has combined inconsistent estimates of the risk free rate in the CAPM, which is a “very common error”;
 - The AER has produced an estimated cost of equity that exactly follows the decline in the risk free rate. This is inconsistent with the views of the UK regulator, the Competition Commission and market evidence. Professor Gregory describes the AER's approach is illogical and unreasonable¹.
 - The AER's advisor, Associate Professor Lally, has raised objections to the use of a long-term average risk free rate, arguing that it violates ‘the present value principle’. However, SP AusNet has obtained three independent expert reports that explain that Associate Professor Lally has made overly simplistic assumptions in his analysis that do not apply in practice. If these assumptions are relaxed – as they must be – his conclusions are not valid. In plain terms, Associate Professor Lally's objections do not stand scrutiny. The AER's concern that the use of a long-term average risk free rate would violate the ‘present value principle’ is, therefore, unfounded.
 - UK regulators are equally concerned to adhere to the present value principle, yet they have regard to historic estimates of the risk free rate.
 - Indeed, adopting a long-term average measure of the risk free rate in the CAPM is neither a novel nor arbitrary approach:
 - Professor Wright and Professor Gregory explain that UK regulators adopt this approach.
 - In Australia, the approach has been recently adopted by IPART in relation to the Sydney desalination plant.

¹ Alan Gregory, *The AER Approach to Establishing the Cost of Equity – Analysis of the Method Used to Establish the Risk Free Rate and the Market Risk Premium*, paragraph 5.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

- Mr Greg Houston of NERA was one of the primary architects of the AER's current estimation method. In an independent expert report commissioned by SP AusNet, Mr Houston states, that in his opinion, the prevailing market for funds requires a modification in this estimation method in order to achieve an estimate of the cost of equity that complies with the NGR and the NGL.
- SFG Consulting explains that the AER's "reasonableness checks" relate to out-dated estimates of trading and transaction multiples which, in any event, provide no meaningful information about the relationship between investors' required returns and the AER's estimate of the cost of capital.
- SFG Consulting and CEG examine the AER's view that a forward-looking MRP does not exceed 6 per cent. Both experts maintain their opinions that there is a wide range of evidence that provides overwhelming support for a forward-looking MRP that exceeds 6 per cent.
- SP AusNet's approach to the cost of equity in this revised proposal corrects the AER's errors. SP AusNet's revised proposal is consistent with the approach adopted by IPART in a number of recent regulatory decisions, and the market evidence on the cost of equity presented by Ernst & Young. In contrast, the AER's cost of equity estimate is inconsistent with finance theory, regulatory practice in the UK, and the available market evidence.
- Applying SP AusNet's approach to the cost of equity produces an estimate of the rate of return on capital that complies with the NGR and NGL, and it is supported by international and domestic evidence based on actual market data and market practice, as well as regulatory practice in the UK and US.

The remainder of this chapter is structured as follows:

- Section 2 provides a recap of SP AusNet's Initial Access Arrangement Proposal.
- Section 3 provides an overview of the AER's Draft Decision and the issues arising.
- Section 4 demonstrates that the AER's methodology for estimating the cost of equity is in error.
- Section 5 demonstrates that the AER's estimate of the cost of equity is in error.
- Section 6 sets out SP AusNet's estimate of the cost of equity.
- Section 7 provides a cash flow analysis prepared by SP AusNet, which demonstrates the benchmark business cannot maintain a stand-alone BBB+ credit rating on the revenues provided in the Draft Decision.
- Section 8 sets out SP AusNet's proposal in relation to the debt risk premium.
- Section 9 sets out SP AusNet's proposed rate of return.
- Section 10 sets out SP AusNet's proposal in relation to the corporate tax allowance.

The forecast information set out in this response to the Draft Decision accords with all of the applicable requirements of the NGR.

In addition to the required information, SP AusNet provides a number of Appendices which support the rate of return proposal:

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

- RAAP Appendix 5.A: The required return on equity: Response to AER Victorian Draft Decisions, SFG Consulting;
- RAAP Appendix 5.B: Response to AER Vic Gas Draft Decisions - Internal Consistency of MRP and Risk Free Rate, CEG;
- RAAP Appendix 5.C: Establishing the Cost of Equity - Analysis of the Method used to Establish the Risk Free Rate and the MRP, Professor Alan Gregory;
- RAAP Appendix 5.D: Review of risk free rate and cost of equity estimates: A comparison of UK approaches with the AER, Professor Stephen Wright;
- RAAP Appendix 5.E: Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, CEG.
- RAAP Appendix 5.F: Market Evidence on the Cost of Equity, Victorian Gas Access Arrangement Review 2013-2017, Ernst & Young.
- RAAP Appendix 5.G: Response to Professor Lally's Analysis, Professor Stephen Wright.
- RAAP Appendix 5.H: Risk Free Rate and the Present Value Principle, Professor Alan Gregory.
- RAAP Appendix 5.I: Economic interpretation of gas legal instruments: Expert report, PWC.
- RAAP Appendix 5.J: Estimating the Cost of Equity under the CAPM: Expert report of Gregory Houston, NERA.

An index of the supporting material for these appendices has also been attached and a separate CD of the supporting material provided.

2 SP AusNet's Initial Access Arrangement Proposal

Before presenting SP AusNet's response to the Draft Decision, this section recaps briefly SP AusNet's Initial Access Arrangement proposal:

- The NGL requires that service providers have a reasonable opportunity to recover at least their efficient costs, which includes the rate of return.²
- SP AusNet's WACC proposal:
 - employed the Capital Asset Pricing Model (CAPM) to estimate the cost of equity using appropriate measures of the risk free rate, the MRP, and the equity beta;³
 - used a debt risk premium that reflects the best available market data for a benchmark firm with a BBB+ credit rating;⁴ and
 - adopted a value of 0.25 for gamma, which is consistent with the findings of the Australian Competition Tribunal.⁵

² Section 24 of the NGL.

³ SP AusNet, *2013-2017 Gas Access Arrangement Review – Access Arrangement Information*, 30 March 2012, p.173.

⁴ Ibid, p. 185.

⁵ Ibid, p. 187.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

- In relation to the cost of equity, SP AusNet explained that the AER's then most recent cost of equity estimate (for Aurora Energy) fails to satisfy the NGL or NGR requirements. This failure arises from a basic inconsistency in the AER's estimation process. Specifically, the AER combines:
 - **historic data** for the MRP over various periods from 1883 to the present day; and
 - **current data** for the risk free rate.⁶
 - Ordinarily, mixing historic and current data would not matter, assuming that the current risk free rate is relatively stable and consistent with the MRP estimate. However, the global financial crisis has precipitated a significant decline in the risk free rate. At the time of SP AusNet's initial proposal, the risk free rate was at its lowest level for 50 years.⁷
 - SP AusNet therefore employed two alternative approaches for deriving an estimate of the cost of equity that is consistent with the NGR and NGL. These involved:
 - combining measures of the risk free rate and MRP that are both historic averages; and
 - combining a spot measure of the risk free rate with a genuinely forward-looking measure of the MRP.⁸
- Both approaches produced similar estimates of the cost of equity of approximately 10.8 per cent. This provided confidence that the proposed cost of equity satisfied the NGR and NGL requirements.⁹
- SP AusNet's estimated cost of debt was 7.91 per cent. SP AusNet proposed to update this estimate in response to the AER's Draft Decision to reflect the latest available market information.¹⁰
 - SP AusNet's nominal vanilla WACC, which assumes a benchmark gearing of 60 per cent, was 9.06 per cent.¹¹

3 The Draft Decision and Issues Arising

The table below (Table 7.8, reproduced from the AER's Draft Decision) sets out the individual WACC parameters and rate of return proposed by SP AusNet alongside the values determined by the AER.

The substantive difference of view between SP AusNet and the AER is in relation to the cost of equity. SP AusNet addresses this issue in further detail in Sections 4 and 5.

⁶ Ibid, pp. 174-179.

⁷ Ibid, pp. 171 and 176.

⁸ Ibid, pp. 179-185.

⁹ Ibid, p. 184.

¹⁰ Ibid, pp. 185-186.

¹¹ Ibid, pp. 189-190.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

Table 7.8 AER's draft decision on SP AusNet's rate of return (nominal)

Parameter	SP AusNet proposal	AER draft decision
Nominal risk free rate (cost of equity)	5.99%	2.98% ^a
Nominal risk free rate (cost of debt)	3.99% ^a	2.98% ^a
Equity beta	0.8	0.8
Market risk premium	6%	6%
Debt risk premium	3.92% ^a	3.76% ^a
Gearing level	60%	60%
Inflation forecast	2.5% ^a	2.5% ^a
Gamma	0.25	0.25
Nominal post-tax cost of equity	10.79% ^a	7.78% ^a
Nominal pre-tax cost of debt	7.91% ^a	6.74% ^a
Nominal vanilla WACC	9.06% ^a	7.16% ^a

Source: ACCC decision; SP AusNet, *Access arrangement proposal*, March 2012 and AER analysis.

(a) Indicative only. The risk free rate, debt risk premium and inflation forecast will be updated closer to the date of the final decision.

In relation to the other cost of capital parameters, it should be noted that SP AusNet accepts the following aspects of the Draft Decision:

- The CAPM may be used to estimate the cost of equity.
- The equity beta estimate is 0.8.
- In estimating the debt risk premium, the benchmark bond is a 10 year Australian corporate bond with a BBB+ credit rating. The benchmark bond is estimated using the extrapolated Bloomberg BBB rated 7 year fair value curve.
- The Bloomberg BBB rated 7 year fair value curve should be extrapolated to a 10 year maturity (consistent with the definition of the benchmark bond) using paired bond analysis.
- The benchmark gearing is 60 per cent.
- The inflation forecast should be based on the Reserve Bank of Australia (RBA) forecasts and the mid-point of the RBA's inflation targeting band.
- In relation to the tax allowance, the value of gamma is 0.25.

From SP AusNet's perspective, these aspects of the cost of capital and tax allowance are agreed.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

In relation to the MRP, SP AusNet is mindful of the recent decisions of the Australian Competition Tribunal on this matter.¹² In those decisions, the Tribunal confirmed that if a regulator's determination of the MRP at 6 per cent was reasonably open to it on the evidence, the Tribunal will not interfere with that determination, even if the Tribunal considers that there may be a preferable MRP value.¹³

Therefore, in light of the Tribunal's recent findings, SP AusNet is prepared to adopt the AER's MRP estimate of 6 per cent in this revised proposal, but only if a consistent measurement approach is adopted in relation to the risk free rate. As explained in the next section, an MRP of 6 per cent is a long term average and consistency requires that it must be matched with a long term average of the risk free rate.

In making this concession in relation to the MRP, SP AusNet does not resile from the compelling evidence that it submitted in its Initial Access Arrangement proposal in which four independent experts¹⁴ provided analysis showing that the forward-looking MRP substantially exceeds 6 per cent.

This Revised Access Arrangement Proposal includes updated spot MRP analysis from SFG Consulting and CEG. SFG and CEG have also conducted an independent re-examination of SP AusNet's evidence in relation to the MRP, in light of the criticisms made by the AER and its consultants in the Draft Decision. These independent expert reports, which are provided as RAAP Appendices 5.A and 5.B, confirm that the balance of evidence overwhelmingly supports a forward-looking 'spot' MRP substantially in excess of 6 per cent.

Although SP AusNet is adopting an MRP of 6 per cent for the purposes of this revised proposal, it would welcome the AER's reconsideration of the MRP if it prefers to address the problems with its cost of equity estimate through the application of a more realistic 'spot' MRP estimate.

4 AER's Approach is Inconsistent

This section explains that the AER has adopted an inconsistent approach to estimating the MRP and risk free rate.

- Section 4.1 explains why consistency in measuring the MRP and risk free rate is essential.
- Section 4.2 provides compelling evidence which shows that the AER's MRP estimate of 6 per cent is not a forward-looking spot estimate. The evidence shows that the AER's MRP estimate reflects a long-term historic average.
- Section 4.3 notes that the AER's expert, Associate Professor Lally, does not regard the AER's MRP estimate as forward-looking. Given that it applies a long-term

¹² *Application by Envestra Limited (No 2)* [2012] ACompT 4 (11 January 2012) and *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12 (8 June 2012).

¹³ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12 (8 June 2012), paragraphs 105-108.

¹⁴ SFG Consulting, CEG, NERA and Capital Research Pty Ltd.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

average MRP estimate, the AER must combine its MRP estimate with a risk free rate that is estimated on a consistent basis.

4.1 Why consistency matters

SP AusNet's Initial Access Arrangement proposal explained the importance of adopting a consistent approach in estimating the MRP and the risk free rate.¹⁵ To understand the theory that underpins this proposition, it is instructive to examine the following comments from Professor Alan Gregory, a respected finance professor who has advised the UK Competition Commission on cost of capital issues:¹⁶

"At this point it is worth emphasising exactly what asset pricing theory tells us that the basic CAPM relationship is, in terms of deriving the expected return on any asset (R_i):

$$R_i = RF + \beta_i(E[RM] - RF) \quad (1)$$

The term in parentheses is often abbreviated to the "equity risk premium" or "market risk premium", but writing the equation out in its original form serves as a reminder that the precise definition of MRP is the expected return on the market ($E[RM]$) minus the risk free rate, RF . As Jenkinson (1993) points out, the important point is that there is only one RF term on the right hand side of the CAPM, not two.

A very common error, which has been discussed in recent UK regulatory appeals, is to implicitly assume the two RF terms are different. An example would be where a current estimate of the risk free rate (say the yield on a government bond) is combined with an historically derived estimate of the MRP."

As Professor Gregory explains, an inconsistent approach to estimating the MRP and risk free rate will incorrectly employ two different risk free rate estimates in the same equation. Professor Stephen Wright¹⁷ from the UK and Dr Tom Hird of CEG¹⁸ independently reach the same conclusion. All three expert reports are provided as RAAP Appendices 5.C, 5.D and 5.E to this chapter.

As already noted, SP AusNet's Initial Access Arrangement Proposal explained that the AER's estimation process for the cost of equity is inconsistent because it combines:

- **historic data** for the MRP over various periods from 1883 to the present day; and
- **current spot market data** for the risk free rate.¹⁹

¹⁵ SP AusNet, 2013-2017 Gas Access Arrangement Review – Access Arrangement Information, 30 March 2012, pp. 174-81.

¹⁶ Alan Gregory, *The AER Approach to Establishing the Cost of Equity – Analysis of the Method Used to Establish the Risk Free Rate and the Market Risk Premium*, paragraphs 11-13.

¹⁷ Stephen Wright, *Review of Risk Free Rate and Cost of Equity Estimates: A Comparison of UK Approaches with the AER*, 25 October 2012, pp. 2 and 3.

¹⁸ CEG, *Response to AER Vic Gas Draft Decisions - Internal Consistency of MRP and Risk Free Rate*, pp. 6-11.

¹⁹ SP AusNet, 2013-2017 Gas Access Arrangement Review – Access Arrangement Information, 30 March 2012, pp. 174-179.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

In its Draft Decision, the AER claims that it has consistently applied “forward-looking” estimates of the MRP and the risk free rate. The AER therefore argues that SP AusNet has mischaracterised the AER's approach.²⁰

“SP AusNet suggested the WACC determined by the AER produces a ‘downward biased return on equity’ because the AER adopts an MRP that reflects the long term average and uses a risk free rate that reflects current market conditions. This suggested bias is a mischaracterisation. The AER estimates a WACC that is consistent with the CAPM and requirements of the rules.

The CAPM should be estimated at the beginning of the investment period and should reflect expectations for the investment horizon. Accordingly, both the risk free rate and the MRP are estimated at the beginning of the period (or rather, as close as is practically possible) and reflect expectations for the investment horizon.”

The AER explains that the MRP is not directly observable and it must rely on a range of evidence to establish an estimate. Nevertheless, the AER insists that an MRP of 6 per cent is a forward looking estimate, and therefore is consistent with the estimate for the risk free rate.²¹

“Long term historical average excess returns are one such source of evidence, and they are used on the basis that historical realised returns are likely to influence investors’ expectations. The AER also considered forward looking evidence (such as survey evidence) in determining the appropriate estimate for the MRP. The use of judgement does not detract from the fact that the MRP is estimated as close as practical to the beginning of the period, and reflects expectations over the 10 year investment horizon.

Therefore, the AER does not use a short term estimate with a long term estimate. The AER uses estimates that reflect prevailing conditions and expectations over a 10 year investment horizon.”

In sections 4.2 and 4.3 (below), SP AusNet provides compelling evidence that the AER's estimate of the MRP is not genuinely forward-looking. Before turning to this evidence, however, it is important to highlight a further matter raised by CEG that identifies another inconsistency in the AER's approach.

CEG explains that the AER regards the spot risk free rate as an appropriate ‘long-term estimate’ as it relates to the yield on 10 year CGS.²² CEG also explains that in contrast, however, the AER regards a spot estimate of the MRP as inherently short-term and therefore not appropriate for the purpose of estimating the MRP over a 10 year horizon, despite the fact that equity investment typically has a much longer time horizon than 10 years.²³

The AER therefore approaches the task of estimating the MRP by considering how the ‘spot’ MRP may change over the 10 year time horizon. However, the same approach is not

²⁰ AER, *Access Arrangement Draft Decision SPI Networks (Gas) Pty Ltd 2013-17*, Part 2, p. 115 (pdf).

²¹ *Ibid.*, p. 115 (pdf).

²² CEG, *Response to AER Vic Gas Draft Decisions - Internal Consistency of MRP and Risk Free Rate*, pp. 6-9.

²³ *Ibid.*

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

adopted in relation to the risk free rate. CEG explains the inconsistency in the AER's approach in the following terms:²⁴

"The AER may consider that it has the discretion to set the MRP on this basis. However, if its estimate of the MRP is set on this basis then for consistency its estimate of the risk free rate should be set on the same basis. If the AER's estimate of MRP is predicated upon an out of averaging period resolution to the problems in the international economy, then so too should its estimate of CGS yields be predicated on the same out of averaging period resolution. That is, if the AER considers that the current conditions of uncertainty and perceptions of risk will dissipate in the medium term and that this justifies an MRP based upon an historic average, based upon the evidence that it relies upon elsewhere, the same conditions will cause CGS yields to rise and the same logic would justify a higher risk free rate – such as one might associate with the historic average.."

CEG explains that for the risk free rate, the AER believes that the spot rate is the appropriate measure.²⁵ In reaching this conclusion, the AER does not consider whether the spot risk free rate – which is at its lowest level since Federation – has a reasonable prospect of persisting at this level over the next 10 years.

CEG therefore explains that the AER is mixing two alternative methods in applying the CAPM to estimate the cost of equity:

1. Adopt 'spot estimates' of the risk free rate and MRP; and
2. Adopt long-term averages of the risk free rate and MRP.

UK professors Alan Gregory²⁶ and Stephen Wright²⁷, and Dr Tom Hird of CEG²⁸, each explain that the AER makes an error by combining the 'spot' risk free rate from method 1 and the long-term average MRP from method 2. This error produces a cost of equity that is manifestly too low and inconsistent with the requirements of the NGR and NGL.

SP AusNet's view is that either method 1 or method 2 should be adopted to ensure consistency. The AER seeks to establish consistency by claiming that the MRP is estimated as close as possible to the commencement of the regulatory period. SP AusNet contends that the AER adopts this language in relation to the MRP because it describes an approach which is consistent with the measurement approach adopted in relation to the risk free rate.

In reality, however, the AER approaches the tasks of estimating the MRP and risk free rate differently. In particular, the AER updates the spot risk free rate at a date as close as possible to the publication of the Final Decision, but it does not update the MRP. This is because the MRP is measured on a fundamentally different and inconsistent basis to the risk free rate, as explained by CEG.²⁹

²⁴ Ibid, paragraph 260.

²⁵ Ibid, pp. 6-9.

²⁶ Alan Gregory, *The AER Approach to Establishing the Cost of Equity – Analysis of the Method Used to Establish the Risk Free Rate and the Market Risk Premium*, paragraph 6.

²⁷ Stephen Wright, *Review of Risk Free Rate and Cost of Equity Estimates: A Comparison of UK Approaches with the AER*, 25 October 2012, p. 12.

²⁸ CEG, *Response to AER Vic Gas Draft Decisions - Internal Consistency of MRP and Risk Free Rate*.

²⁹ Ibid, pp. 6-9.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

In response to SP AusNet's proposal to apply long-term averages of the risk free rate and MRP, the AER argues that any departure from the prevailing spot CGS rate can only be justified on the basis that doing so corrects an error with the MRP and that the appropriate way to correct that error is to change the MRP, not make the risk free rate deviate from a prevailing estimate. The AER's suggestion that SP AusNet is attempting to address a problem with the MRP estimate by adjusting the risk free rate mischaracterises its position, which is supported by several independent experts. For instance, CEG's report states in relation to this matter:³⁰

"I certainly agree with the AER that the historical average risk free rate is not the best estimate of the prevailing spot CGS yield. However, using a historical risk free rate instead does not 'fix a problem' with the estimating a historical average MRP. Rather, it achieves consistency with such an estimate of the MRP and, in doing so, gives rise to an estimate that, unlike the AER's methodology, is an internally consistent method for forecasting long term average required returns.

By estimating both the risk free rate and the MRP based on long run historical averages, the sum of the two results is an estimate of the market cost of equity that is coherent and internally consistent. On precisely the same grounds that the AER uses to justify the historical average MRP as a prevailing forecast, this methodology gives rise to a prevailing forecast of the cost of equity over the next 10 years. Specifically, to the extent that investors expect the future to reflect the past then they will expect future equity returns to reflect past equity returns. In September this approach led to an 11.86% estimate of the long term average market return on equity (5.86% risk free rate plus 6.0% MRP)."

SP AusNet's approach ensures consistency between the methods employed to estimate the MRP and risk free rate. IPART recognised the importance of adopting a consistent measurement approach for each of these two parameters in its determination for the Sydney Desalination Plant.³¹

"As noted in section 9.4.1, we recognise stakeholders' concerns about the inconsistency in using short term data in estimating some parameters and long term data in estimating others. We also recognise there is considerable uncertainty over the market risk premium, due to recent market instability. These factors influenced our decision to set SDP's WACC towards the top of the possible range, and we are satisfied that this decision adequately addresses stakeholders' concerns."

The AER's claim that its estimates of the MRP and risk free rate are consistent is not supported by IPART's comments.

For the avoidance of doubt, SP AusNet is open to the AER adopting a genuine 'spot' estimate for the MRP and combining it with the 'spot' rate for the risk free rate. However, the AER's approach has not adopted a consistent 'spot' estimate for each parameter.

The next section demonstrates that the AER's estimate of the MRP is based on historic data. The principle of consistency requires that an MRP estimate of 6 per cent must be accompanied by a long term average for the risk free rate. The evidence presented below strongly contradicts the AER's claim that its estimates for the MRP and risk free rate estimates are consistent.

³⁰ Ibid, paragraphs 66 and 67.

³¹ IPART, *Review of water prices for Sydney Desalination Plant Pty Limited*, December 2011, p. 91.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

4.2 AER's MRP estimate is a long term historic average

As already noted, the AER seeks to characterise the MRP as being “estimated as close as practical to the beginning of the period”.³² The purpose of this characterisation is to claim that the estimates adopted for the MRP and the risk free rate are consistent. However, as shown below, this claim is not supported by the facts.

The AER relies on survey data and historic estimates of market returns to establish its MRP estimate. The relevant survey data is set out below (Table 4.30, reproduced from the AER's Draft Decision). It shows that the most recent survey referred to by the AER was published in July 2011, some 14 months prior to the Draft Decision. The KPMG survey, which is referred to by the AER, is dated 2005.

Table 4.30 Key findings of MRP surveys

	Numbers of responses	Mean	Median	Mode
KPMG (2005)	33	7.5%	6.0%	6.0%
Capital Research (2006)	12	5.1%	5.0%	5.0%
Truong, Partington and Peat (2008)	38	5.9%	6.0%	6.0%
Bishop (2009)	27	na	6.0%	6.0%
Fernandez (2009)	23	5.9%	6.0%	na
Fernandez and Del Campo (2010)	7	5.4%	5.5%	na
Fernandez et al (2011)	40	5.8%	5.2%	na
Asher (2011)	49	4.7%	5.0%	5.0%

Sources: KPMG (2005), Capital Research (2006), Truong, Partington and Peat (2008), Bishop (2009), Fernandez (2009), Fernandez and Del Campo (2010), Fernandez et al. (2011), Asher (2011)).

Contrary to the AER's position, it is not credible to argue that the survey data is “as close as practical to the beginning of the period, and reflects expectations over the 10 year investment horizon”.³³ Survey data from as early as 2005 cannot support the AER's contention that its MRP estimate is genuinely forward-looking, because it does not reflect today's market conditions. The survey results reported over the period from 2005 to 2008 reflect a period when the risk free rate was substantially higher than the current spot rate.³⁴ As already noted, combining today's low spot rate with MRP survey data from as early as 2005 is manifestly inconsistent.

The AER's claim that the MRP is “measured as close practical to the beginning of the period” is also inconsistent with the remarkable stability in its regulatory decisions since

³² AER, *Access Arrangement Draft Decision SPI Networks (Gas) Pty Ltd 2013-17*, Part 2, p. 115 (pdf).

³³ Ibid, p. 115 (pdf).

³⁴ The yield on 10 year Commonwealth bonds averaged approximately 5.7 per cent over the period from January 2005 to December 2008.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

the commencement of energy network regulation in Australia. It is commonly accepted by academics and practitioners that the MRP varies over time. However, the same cannot be said of the AER's estimates or those of the ACCC, as shown in the table below.

Table 5-1: ACCC and AER MRP decisions for regulated energy networks over the period from 1998 to the present

Date	Final decision	Decision maker	MRP adopted
Oct 1998	Transmission Pipelines Australia (GasNet)	ACCC	6 per cent
Jan 2000	NSW and ACT Transmission Network Revenue Caps	ACCC	6 per cent
Jun 2000	Central West Pipeline	ACCC	6 per cent
Feb 2001	Snowy Mountains Hydro-Electric Authority Transmission	ACCC	6 per cent
Sep 2001	Moomba to Adelaide Pipeline	ACCC	6 per cent
Nov 2001	Queensland Transmission Network Revenue Cap	ACCC	6 per cent
Nov 2002	GasNet Australia	ACCC	6 per cent
Dec 2002	Amadeus Basin to Darwin Pipeline	ACCC	6 per cent
Dec 2002	Victorian Transmission Network Revenue Caps	ACCC	6 per cent
Dec 2002	South Australian Transmission Network Revenue Cap	ACCC	6 per cent
Oct 2003	Moomba to Sydney Pipeline	ACCC	6 per cent
Oct 2003	Murraylink Transmission Network Revenue Cap	ACCC	6 per cent
Dec 2003	Tasmanian Transmission Network Revenue Cap	ACCC	6 per cent
Apr 2005	EnergyAustralia Transmission Network Revenue Cap	ACCC	6 per cent
Apr 2005	TransGrid Transmission Network Revenue Cap	ACCC	6 per cent
Mar 2006	DirectLink Transmission Network Revenue Cap	ACCC	6 per cent
June 2007	Queensland Transmission Network Revenue Cap	ACCC	6 per cent
Aug 2007	Dawson Valley Pipeline	ACCC	6 per cent
Jan 2008	SP AusNet transmission determination	ACCC	6 per cent
Apr 2008	GasNet Australia	ACCC	6 per cent
Apr 2008	ElectraNet transmission determination	AER	6 per cent
Apr 2009	TransGrid Transmission Determination	AER	6 per cent
Apr 2009	Transend Transmission Determination	AER	6 per cent
Apr 2009	ACTEW AGL Electricity Distribution	AER	6 per cent
Apr 2009	New South Wales distribution determination	AER	6 per cent
Mar 2010	ACTEW AGL ACT, Queanbeyan & Palerang gas distribution	AER	6.5 per cent
Mar 2010	Wagga Wagga natural gas distribution network	AER	6.5 per cent
May 2010	Queensland distribution determination	AER	6.5 per cent
May 2010	South Australia distribution determination	AER	6.5 per cent
June 2010	Jemena Gas Networks NSW	AER	6.5 per cent
Oct 2010	Victorian DNSPs - CitiPower, Powercor and UE	AER	6.5 per cent
Oct 2010	Victorian DNSPs - SP AusNet	AER	6.5 per cent
Oct 2010	Victorian DNSPs - Jemena Electricity Networks	AER	6.5 per cent
Jun 2011	Envestra gas distribution SA and Qld	AER	6 per cent
Jun 2011	APT Allgas Qld gas distribution	AER	6 per cent
Jul 2011	Amadeus Gas Pipeline (NT)	AER	6 per cent

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

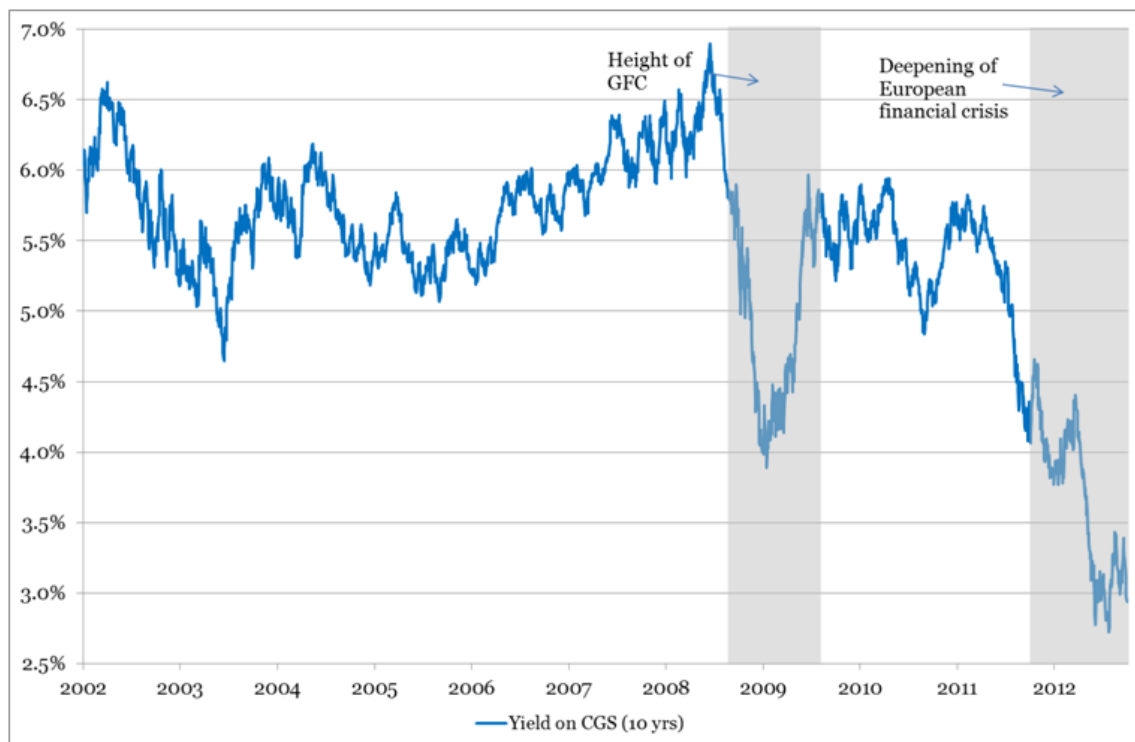
Date	Final decision	Decision maker	MRP adopted
Apr 2012	Aurora Energy	AER	6 per cent
Apr 2012	Powerlink Transmission	AER	n/a ³⁵
Aug 2012	Roma to Brisbane Pipeline	AER	6 per cent
Sep 2012	DRAFT DECISION - SP AusNet Gas Distribution	AER	6 per cent

Source: SP AusNet

It is evident from the above table that, apart from a brief (8 month) period between March and October 2010 in which the MRP was increased to 6.5 per cent, the AER and ACCC decisions on the MRP have been fixed at 6 per cent for the past 14 years.

It is instructive to compare the consistent view of the level of the MRP with the volatile nature of the spot risk free rate. The figure below shows the yield on 10 year GCS since 2002, and shows that the risk free rate is currently at a low point.

Figure 5-1: 10-year government bond yields since mid-2002



Source: CEG

The stability of the AER's 6 per cent MRP estimate contrasts with the volatility in the spot risk free rate. It is inconceivable that the 'spot' MRP does not also vary over time.

³⁵ Under clause 6A.6.2(h) of the NER, the AER must use the MRP value set out in the Statement of the Revised WACC Parameters published by the AER in May 2009, for as long as that Statement remains in force. Under the current NER, the May 2009 Statement is due to remain in force until 2014. The May 2009 Statement mandates the adoption of an MRP value of 6.5 per cent in all electricity transmission revenue determinations.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

The fixed nature of the ACCC and AER estimates of the MRP simply reflects the fact that it is derived from a long historic data series, which dates back to the 1880s. It is indicative of an approach that is not genuinely forward-looking. It cannot be regarded as a spot estimate of the MRP, which is the only measure that should be combined with the spot risk free rate.

As shown in the table above, the origin of the 6 per cent MRP can be traced back to early ACCC decisions. While the excerpts below show that the ACCC acknowledged that MRP is “in theory” a forward-looking concept, there is little doubt that it is derived from historic data. In particular, in its Draft Statement of Regulatory Principles in May 1999, the ACCC stated:³⁶

“Theoretically the market risk premium is an ex-ante premium based on a forward view of the market. However, for practical reasons much of the analysis of its value has relied on the premium historically achieved, as a proxy measure.”

In its Final Decision for the Moomba to Sydney gas pipeline in October 2003, the ACCC also noted the importance of historic returns in its estimating approach:³⁷

“Theoretically the market risk premium is an ex ante premium, however, for practical purposes historic data has typically been used as a proxy measure.”

In its Final Decision for Transend Networks in December 2003, the ACCC made a similar statement:³⁸

“Multiplying WACC by the RAB to determine the return on capital for a regulated business is a forward-looking concept. However, estimates of the future cost of equity are not readily available. Practical applications of the CAPM therefore rely on the analysis of historic returns to equity to estimate the MRP.”

The Final Decision on the Statement of Regulatory Intent on Revised WACC Parameters similarly emphasises the primary weight given to historic data by the AER. This Final Decision was released at the conclusion of the most recent industry-wide review of the WACC. In it, the AER stated:³⁹

*“Rather than placing sole weight on any particular measure of the MRP, it is common practice to have regard to each measure, tempered by an understanding of the strengths and weaknesses of each measure, in determining a ‘final’ MRP. The AER considers this is an appropriate approach in the context of having had regard to the need for persuasive evidence, and is consistent with past regulatory practice. **Following this approach leads the AER to place primary weight on long term historical estimates of the MRP**, though also placing some weight on other measures such as cash flow based estimates and surveys.*

The most recent long term historical average excess returns ... fall close to 6 per cent” [emphasis added]

The AER went on to conclude:⁴⁰

³⁶ ACCC, *Draft Statement of Regulatory Principles*, May 1999, p. 78.

³⁷ ACCC, *Final Decision, Moomba to Sydney Pipeline System Access Arrangement*, October 2003, p. 124.

³⁸ ACCC, *Tasmanian Transmission Network Revenue Cap 2004–2008/09, Decision*, December 2003, p. 82.

³⁹ AER, *Final Decision: Electricity transmission and distribution network service providers - Review of the WACC parameters* May 2009, p. 236.

⁴⁰ *Ibid*, p 237.

2013 – 2017 GAAR: SP AusNet Response to AER’s Draft Decision

“Consistent with past regulatory practice, the AER considers that primary weight should continue to be placed on long term historical estimates of the MRP.”

At the same time, the AER acknowledged this was the long-established practice of Australian regulators, and that “in the interests of regulatory certainty and stability, and placing primary weight on long term historical estimates, regulators consistently maintained a MRP of 6 per cent”.⁴¹

The fact is that the long-established regulatory practice in Australia is to adopt an MRP estimate of 6 per cent, based on long-term historic data. For the AER to claim that the forward-looking estimate has been undertaken “as close as practically possible to the commencement of the regulatory period” implies that the AER is constantly fine-tuning and updating its MRP assessment. The reality, however, is quite the contrary – the AER’s focus remains on historic data.

4.3 Experts agree that an MRP of 6 per cent is an historic average

Professor Gregory’s description of the AER’s approach explains that the AER has combined historic estimates of the MRP and the ‘spot’ risk free rate.⁴²

“At 2.3.1 the AER makes clear that its chosen estimate for RF [risk free rate] is an average of 10 year CGS yields for the period 25th June to 20th July 2012. To consistently apply the CAPM it should, therefore, have used an estimate of the expected RM [return to the equity market] on a reasonable basis, and subtracted from that the same average of 10 year CGS yields. The evidence in 2.3.2 suggests that they have not done so. Table 2.2 shows estimates of the historically derived MRP. For the reasons set out above, whilst it would have been correct to use these historical data series to measure RM directly, it is not valid to take an MRP from this series and match it with an RF derived from forward looking data.”

The AER’s consultant, Associate Professor Lally, has also acknowledged that the AER’s MRP estimate is actually based on historic data and survey evidence, and does not adequately consider forward-looking methodologies including the Dividend Growth Model (DGM) and other evidence.⁴³

“In addition, whilst the AER gives primary weight to historical averaging of excess returns and survey results in estimating the forward-looking MRP, I consider that the AER should give consideration or additional weight to a number of other methods including the Siegel approach, the DGM, and results from a range of other markets. In addition, if historical average returns are used, they should be arithmetic rather than geometric averages.”

In light of Associate Professor Lally’s comments alone, it must be concluded that the AER has not in fact adopted a forward-looking estimate of the MRP “as close as possible” to the commencement of the regulatory period. If it had done so, the AER would have looked at other models as suggested by Associate Professor Lally. In addition, if the AER’s estimate

⁴¹ Ibid, p. 237.

⁴² Alan Gregory, *The AER Approach to Establishing the Cost of Equity – Analysis of the Method Used to Establish the Risk Free Rate and the Market Risk Premium*, paragraph 2.19.

⁴³ Associate Professor Lally, *The Cost of Equity and the Market Risk Premium*, 25 July 2012, p. 32.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

of the MRP was in fact genuinely forward-looking, the MRP would have shown some variation across the 40 regulatory decisions since 1998. However, there has been practically no variation in the MRP values adopted.

There is no doubt that the AER's estimate of the MRP is a long-term average. It must therefore be combined with an estimate of the risk free rate which is also a long term average. Unless this approach is adopted, the AER's methodology for estimating the cost of equity will be flawed, as explained by Professor Gregory and Professor Wright in the extracts from their reports cited in section 4.1 above. This observation is not simply a theoretical or methodological complaint - it has implications for the AER's cost of equity estimate. The next section shows that the application of the AER's methodology for estimating the cost of equity produces an estimate which is in error.

5 The AER's cost of equity estimate is in error

This section provides compelling evidence that the AER's estimate of the cost of equity is in error. It is structured as follows:

- Section 5.1 summarises CEG's findings in updating its March 2012 report, which accompanied SP AusNet's Initial Access Arrangement Proposal.
- Section 5.2 provides evidence that the 'spot' MRP exceeds 6 per cent.
- Section 5.3 summarises the findings of Ernst & Young's review of independent valuation reports since 2008, which concludes that the cost of equity estimated by the AER in the Draft Decision does not meet the requirements of Rule 87(1) of the NGR.
- Section 5.4 sets out statements from investors and fund managers outlining their concerns that the AER's cost of equity estimates are unprecedentedly low, and do not accord with capital market expectations.
- Section 5.5 sets out the key findings of independent expert reports in relation to UK and US regulatory practice.
- Section 5.6 summarises SFG's findings that the AER's reasonableness checks are irrelevant and do not support its estimated cost of equity.
- Section 5.7 examines the AER's reliance on the "present value principle" in adopting the current (unprecedentedly low) long-term Government bond yield as a proxy for the risk free rate.
- Section 5.8 explains that the AER's estimate of the cost of equity is inconsistent with the NGR and NGL.
- Section 5.9 presents a summary of key findings regarding the errors in the AER's estimate of the cost of equity.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

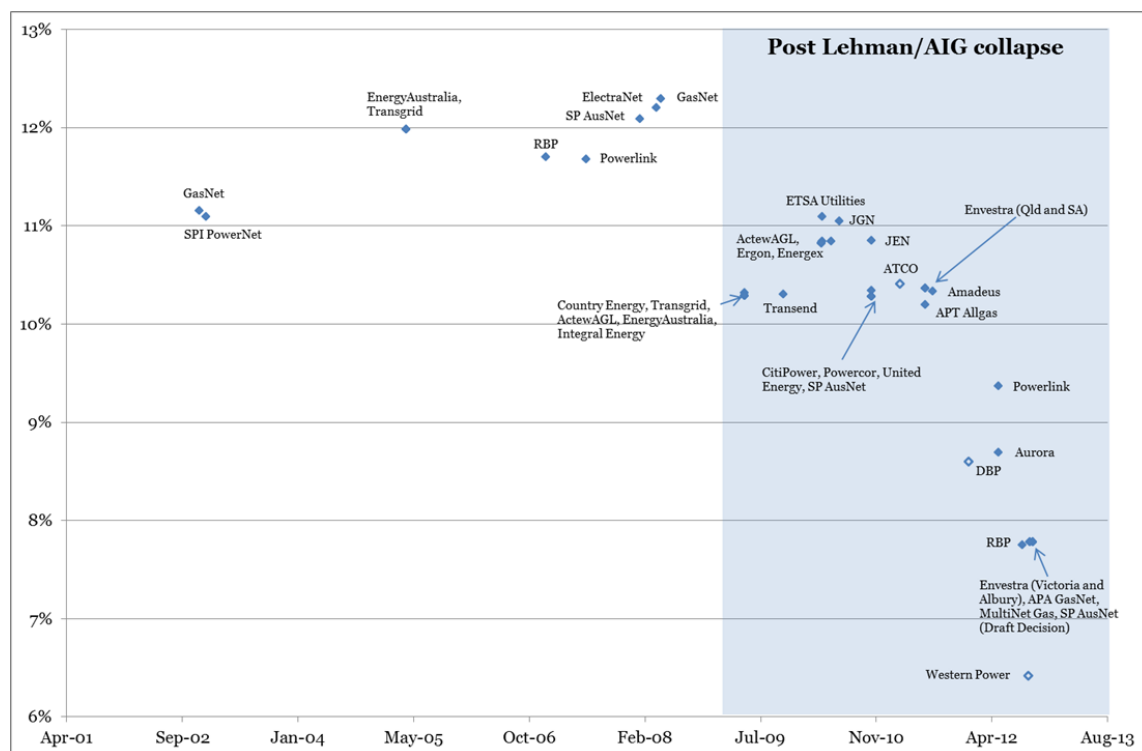
5.1 CEG's updated report shows AER error

SP AusNet's Initial Access Arrangement Proposal explained that in estimating the cost of equity using the CAPM, it has become standard practice in the AER's regulatory decisions to combine:

- an estimate of the MRP which is substantially based on historic data averaged over various periods from 1883 to the present day; and
- a current-day estimate of the risk free rate, typically based on observed yields on 10 year Government bonds over 15 or 20 trading days immediately prior to the decision.⁴⁴

Under conditions of normally functioning capital markets, the AER's standard approach would generally result in reasonable estimates of the cost of equity. However, we cannot rely on normal conditions persisting and, therefore, the AER's standard regulatory approach will only by chance produce an estimate of the cost of equity that is consistent with clause 87(1) of the NGR. Furthermore, the current market conditions are far from normal. As shown in the figure below, the AER's approach is producing cost of equity estimates that have dropped sharply in recent months, contrary to experience in the real-world capital markets. We will return to capital market evidence shortly.

Figure 5-2: Cost of equity decisions for regulated energy businesses



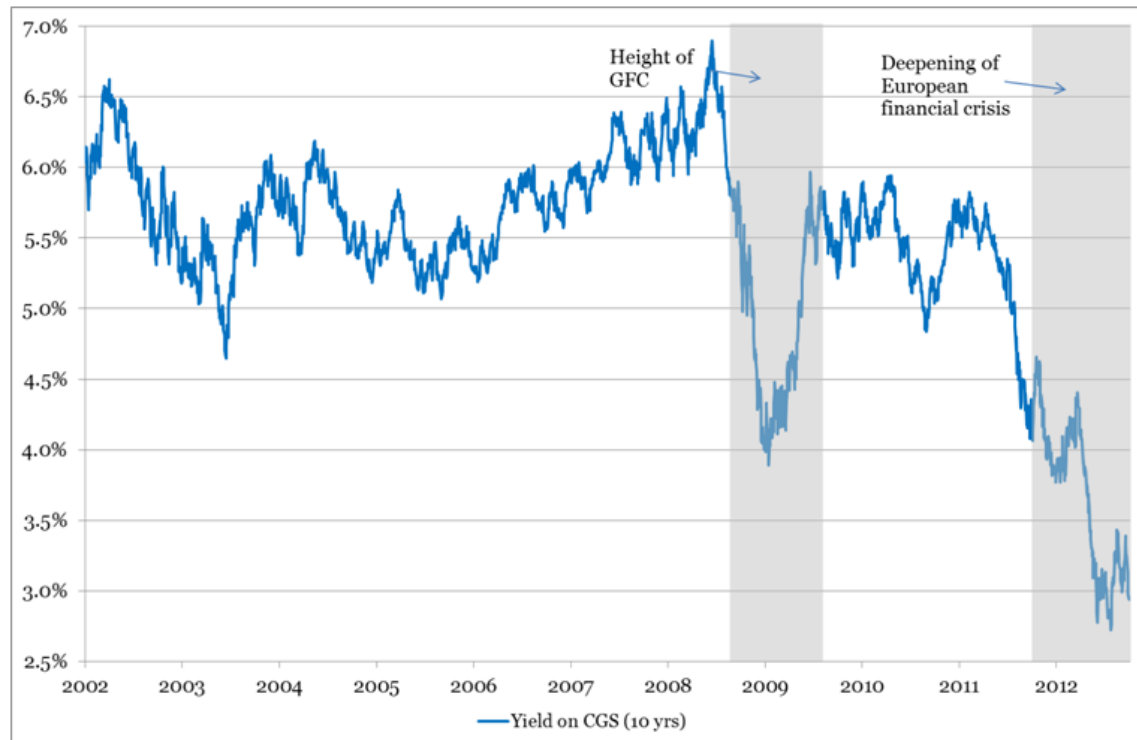
Source: CEG, Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, page 7.

⁴⁴ SP AusNet, 2013-2017 Gas Access Arrangement Review – Access Arrangement Information, 30 March 2012, p.174.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

The reduction in the AER's estimate of the cost of equity is due to the fall in Australian Government ten year bond yields (the spot risk free rate) since the onset of the GFC and the deepening of the European sovereign debt crisis, as show in the figure below. The risk free rate is now at historically low levels, reflecting a flight to quality as investors sell risky assets and buy AAA-rated government debt.

Figure 5-3: Time series for yields on ten year CGS



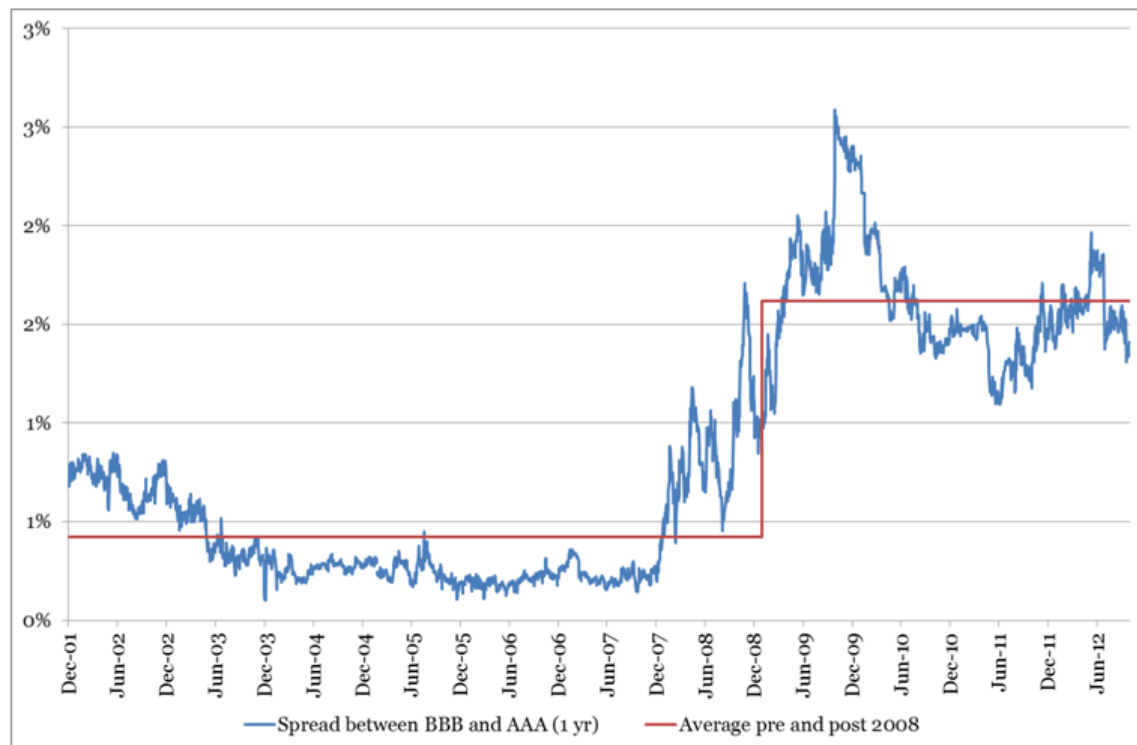
Source: CEG,

The AER's mechanistic application of the CAPM – using a market risk premium derived from a long series of historic data, and a spot rate risk free rate – leads it to produce cost of equity estimates that are demonstrably inconsistent with the prevailing conditions in the market for funds. It is erroneous to believe that the reduction in the yield on 10 year CGS – which is driven by increased investor uncertainty and risk aversion – should not affect the MRP.

Dr Hird also explains that it is common practice to use spreads between low risk assets and BBB rated bonds as a proxy for the level of investor uncertainty and risk aversion. In this regard, it is instructive that the spread between Standard & Poor's AAA and BBB rated bonds with one year to maturity (shown in the figure below) continues to exhibit elevated levels. This is indicative of greater levels of uncertainty and risk aversion, and is wholly inconsistent with the AER's view that the cost of equity has fallen over the same period because the MRP remains unchanged from its long term average.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

Figure 5-4: Spreads between AAA and BBB benchmark bonds at 1 year to maturity

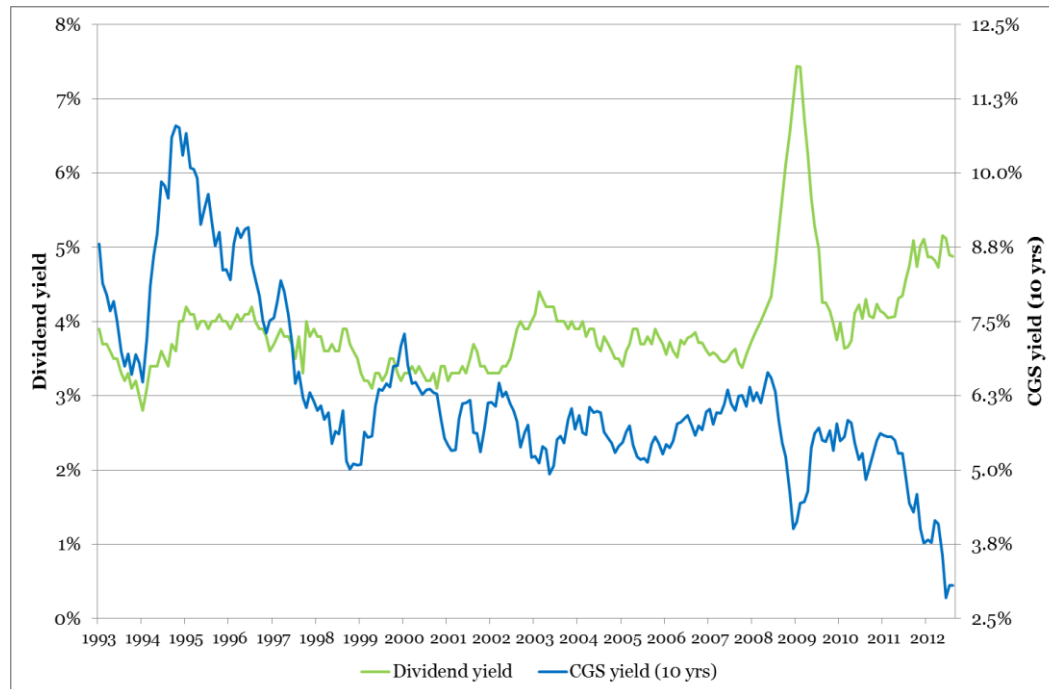


Source: CEG, Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, page 14.

Dr Hird also explained that it is common practice to use equity dividend yields as a proxy for prevailing levels of uncertainty and risk aversion. The figure below shows that dividend yields have increased since 2009, reflecting increased uncertainty and risk aversion, as the yield on CGS has fallen. The data is wholly inconsistent with the AER's view that the cost of equity has fallen dramatically since 2008.

2013 – 2017 GAAR: SP AusNet Response to AER’s Draft Decision

Figure 5-5: Dividend yield on ASX versus 10 year CGS yields



Source: CEG, Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, page 15.

Note: Figures used in this chart are month-end figures published by the RBA in the RBA Monthly Bulletins (1993-2012) and correspond to the dividend yield information

Dr Hird concludes:⁴⁵

“Consistent with my March 2012 report, there is persistent and unambiguous evidence that risk premiums in the market for funds have risen to offset the recent fall in CGS yields. The effect of this is that the prevailing cost of equity is at least as high as under normal market conditions – notwithstanding that the CGS yields are at historic lows. In these circumstances, it would be an error to estimate the cost of equity using prevailing CGS yields in combination with a historical average estimate of the market risk premium.”

Furthermore, Dr Hird concludes that the AER’s estimate of the cost of equity is approximately 200 basis points below the level that could be established using alternative valid estimation methods. This substantial difference, together with the other evidence presented in this revised proposal, demonstrates that the AER’s cost of equity estimate is not credible and does not satisfy with the NGR and NGL requirements.

5.2 The spot MRP exceeds 6 per cent

SP AusNet’s Initial Access Arrangement Proposal included a wide range of evidence on the ‘spot’ MRP and the forward-looking cost of equity. The evidence included expert analysis from CEG, discussed above, in addition to the following reports:

⁴⁵ CEG, Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, paragraph 97.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

- NERA (2012b), *Prevailing Conditions and the Market Risk Premium*, a report prepared for APA Group, Envestra, Multinet & SP AusNet, prepared by NERA Economic Consulting, 15th March 2012.
- SFG (2012c), *Review of NERA regime-switching framework*, a report prepared for APA Group, Envestra, Multinet Gas, and SP AusNet by SFG Consulting, Strategic Finance Group, 25th March 2012.
- Capital Research (2012b), *Forward Estimate of the Market Risk Premium: Update*, A report prepared for the Victorian gas transmission and distribution businesses: APA Group, Envestra, Multinet Gas and SP AusNet.

SP AusNet notes that the AER and its consultants have made a number of criticisms of these independent expert reports. SP AusNet asked SFG Consulting to respond to the points raised, and its expert opinion is provided as RAAP Appendix 5.A. In light of SFG Consulting's comments, SP AusNet continues to rely on these reports in this submission. SP AusNet recognises that *any* estimate of the cost of equity is open to criticism because estimating an unobservable parameter – such as the cost of equity – is bound to be imperfect. The task, therefore, is to make a reasonable judgment based on the available evidence. The above reports provide compelling evidence that the 'spot' MRP exceeds the 6 per cent estimated by the AER.

In addition to the above reports, CEG has updated its estimate of the MRP using the DGM. CEG estimates a prevailing market cost of equity at 11.94 per cent and MRP at 8.89 per cent.⁴⁶ This is based on the AMP method using end September 2012 dividend yields from the RBA, long run dividend growth of 6.6 per cent nominal and an assumption that each dollar of dividend delivered to investors comes with 11.125 cents value of franking credits. Assuming a beta of 0.8 and risk free rate of 3.05 per cent as at 30 September 2012, this gives a cost of equity for the reference services of 10.16 per cent. This estimate is slightly lower than CEG's March 2012 cost of equity estimate of 10.58 per cent.

SP AusNet regards the CEG evidence as supporting its view that the 'spot' MRP remains well in excess of 6 per cent and the AER's cost of equity estimate is manifestly too low.

5.3 Ernst & Young market review shows AER error

Ernst & Young was engaged by SP AusNet and the other Victorian gas network companies to prepare an expert report which sets out Ernst & Young's opinion as to:

- the best market evidence available to assess the prevailing cost of equity in the market for funds in Australia;
- the estimated prevailing cost of equity that can be drawn from that evidence;
- whether the cost of equity estimated by the AER in the Draft Decision meets the requirement of rule 87(1); and
- whether the cost of equity proposed by SP AusNet in response to the AER's Draft Decision meets the requirement of rule 87(1).

⁴⁶ CEG, *Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM*, p. 31

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

The Ernst & Young report is provided as RAAP Appendix 5.F.

Ernst & Young has examined all available independent expert reports containing a company valuation from that were issued between 1 January 2008 and 10 October 2012, which employed the CAPM. The Ernst & Young report ascertains the cost of equity estimates provided by independent experts. The independent experts have legal and reputational responsibilities to ensure that their estimates of the cost of equity are reasonable. Market transactions – including company acquisitions – have been based on these independent expert reports. The reports therefore provide compelling evidence of the cost of equity in the real world. The Ernst & Young report states that the information provided in the independent expert reports is the best publicly available market evidence to assess the prevailing cost of equity in the market for funds in Australia.⁴⁷

In total, Ernst & Young relied on 132 independent expert reports to provide evidence on the cost of equity in the Australian market. Ernst & Young's report found that independent experts estimate the average market cost of equity to be 10.7% in 2012.⁴⁸

The table below shows the average market cost of equity estimates over the period from 1 January 2008 to 10 October 2012 compiled from the independent expert reports relied upon by Ernst & Young. The table also shows the AER's equivalent market cost of equity estimates. For the period from 2008 to 2011 inclusive, the AER average reflects the AER decisions over that period. For 2012, the AER average has been calculated by Ernst & Young by applying the AER methodology as at the date of each expert report.

Table 5-2: Comparison of AER market cost of equity estimates with Independent Valuations

Year	Average cost of equity - market	Average cost of equity - AER ⁴⁹	Difference
2008	12.0%	12.2%	0.2%
2009 ⁵⁰	11.8%	11.4%	-0.4%
2010	11.7%	12.1%	0.4%
2011	11.1%	11.5%	0.4%
2012	10.7%	9.5%	-1.2%

Source: SP AusNet analysis

It is important to reiterate that the market cost of equity adopted by the AER for the Victorian gas companies is 8.98 per cent, which is even lower than the AER average for 2012.

The following observations can be drawn from the above table.

⁴⁷ Ernst & Young, *Market Evidence on the Cost of Equity, Victorian Gas Access Arrangement Review 2013-2017*, November 2012, p. 5.

⁴⁸ Ibid, pp. 5 and 10.

⁴⁹ Ibid, Appendix C.

⁵⁰ The AER market cost of equity estimates in this year reflect the AER's final decisions as adjusted by the Australian Competition Tribunal.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

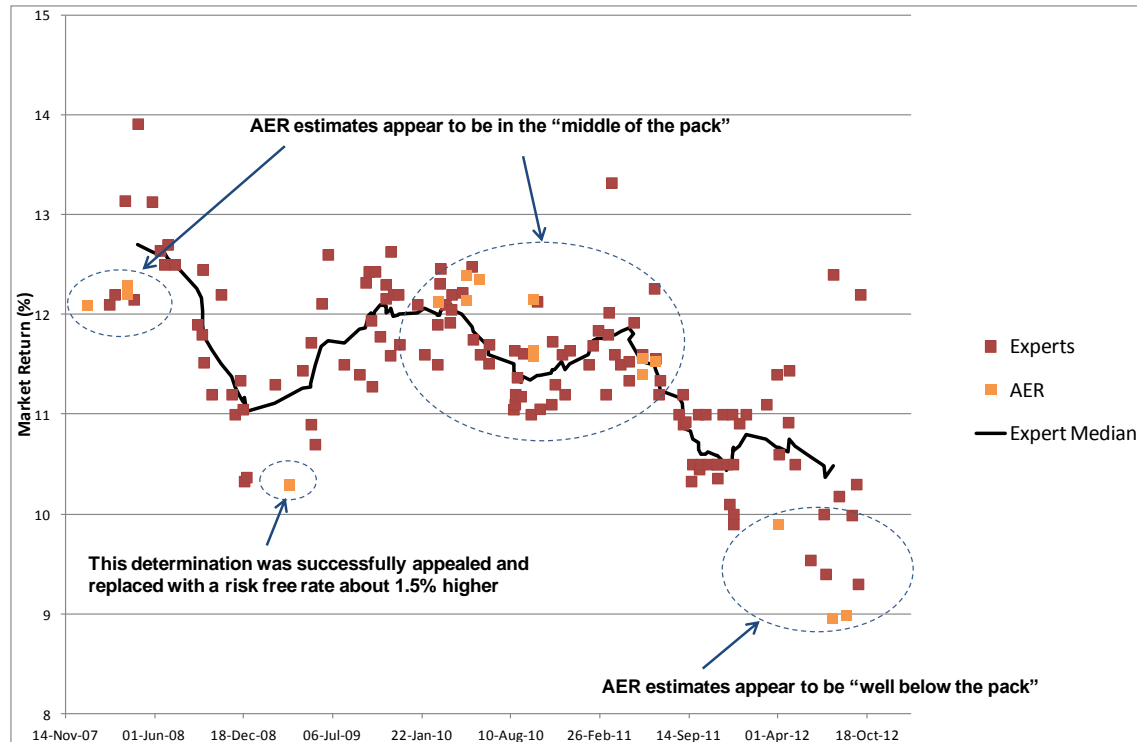
- Independent experts estimate an average cost of equity for the ten months to October 2012 of 10.7 per cent, which is approximately 130 basis points below the equivalent estimate in 2008. The equivalent reduction in the AER's market cost of equity decisions over the same period is a reduction of 270 basis points. The AER's reduction is therefore 140 basis points more than the average of estimates contained in the independent experts' reports.
- For the ten months to October 2012, the AER's average market cost of equity estimate is 120 basis points lower than the average estimate provided by independent experts.
- For the Victorian gas distribution businesses, the AER's market cost of equity estimate (for a beta of 1) is approximately 170 basis points lower than the average estimate of the market cost of equity provided by independent experts for the ten months to October 2012.
- Independent experts estimate an average cost of equity of 11.5 per cent for the period from 1 January 2008 to 10 October 2012.
- As noted in the Ernst & Young report, the gap between the AER's cost of equity and the independent experts' assessment widens if the value of imputation credits is taken into account. Specifically, Ernst & Young states that in relation to 2012 data, when the value of imputation credits is taken into account the difference between the AER's cost of equity and the prevailing market cost of equity implied by independent experts is 2.2 per cent.⁵¹ Therefore, the AER's estimate of the cost of equity is inconsistent with the market evidence provided by the independent expert reports and the prevailing conditions in the market for equity funds.

The figure below provides a more detailed analysis of the market cost of equity adopted by the independent experts and the AER from January 2008 to October 2012. It shows that the AER's most recent estimates of the cost of equity are well below the average of the recent estimates produced by independent experts. However, it also illustrates that the AER's earlier cost of equity estimates tended to exceed those of independent experts. SP AusNet regards these earlier AER decisions as consistent with the requirements of the NGL, which requires the AER to ensure that network service providers are able to recover at least their efficient costs. In addition, the Revenue and Pricing Principles require the AER to consider the consequences of under-investment if the cost of capital is under-estimated.

⁵¹ Ernst & Young, *Market Evidence on the Cost of Equity, Victorian Gas Access Arrangement Review 2013-2017*, November 2012, pp. 5 and 14-15.

2013 – 2017 GAAR: SP AusNet Response to AER’s Draft Decision

Figure 5-6: Analysis of estimates from independent experts and AER

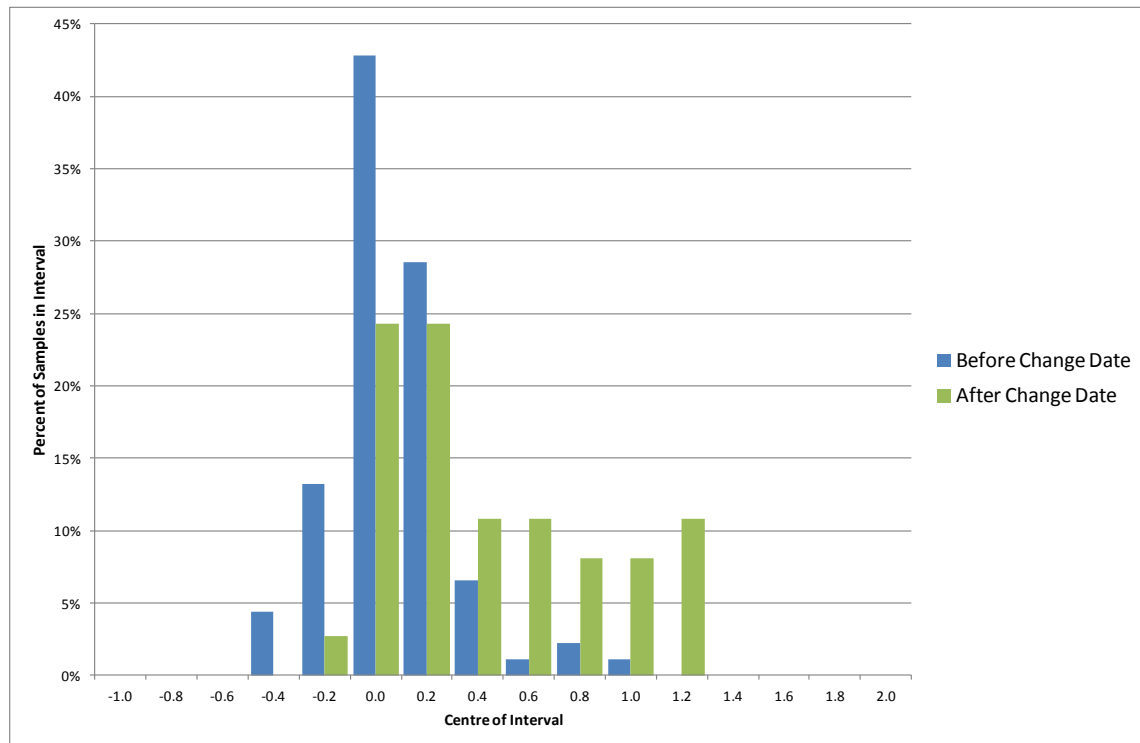


Source: SP AusNet analysis

Contrary to the AER’s Draft Decision, independent experts have amended their approach to estimating the risk free rate in response to the dramatic reduction in the yield on 10 year CGS. This change can be observed in the histogram below. It shows that prior to July 2011, the spread between independent experts’ estimates of the risk free rate and the yield on 10 year CGS (shown as the ‘old’ histogram in **blue**) is centred around zero and forms a bell-shaped distribution. This strongly suggests that prior to July 2011, independent experts typically adopted a risk free rate that was closely aligned with the yield on 10 year CGS. However, the ‘new’ histogram (shown in **green**) indicates that after July 2011 independent experts are typically adopting a risk free rate that exceeds the yield on 10 year CGS. These observations provide a powerful indication that the AER’s current estimation process – which is unchanged in response to the decline in the yield on CGS – is materially out-of-step with market practice.

2013 – 2017 GAAR: SP AusNet Response to AER’s Draft Decision

Figure 5-7: Histogram of spreads between risk free rate and 10 year bond yield: before and after July 2010

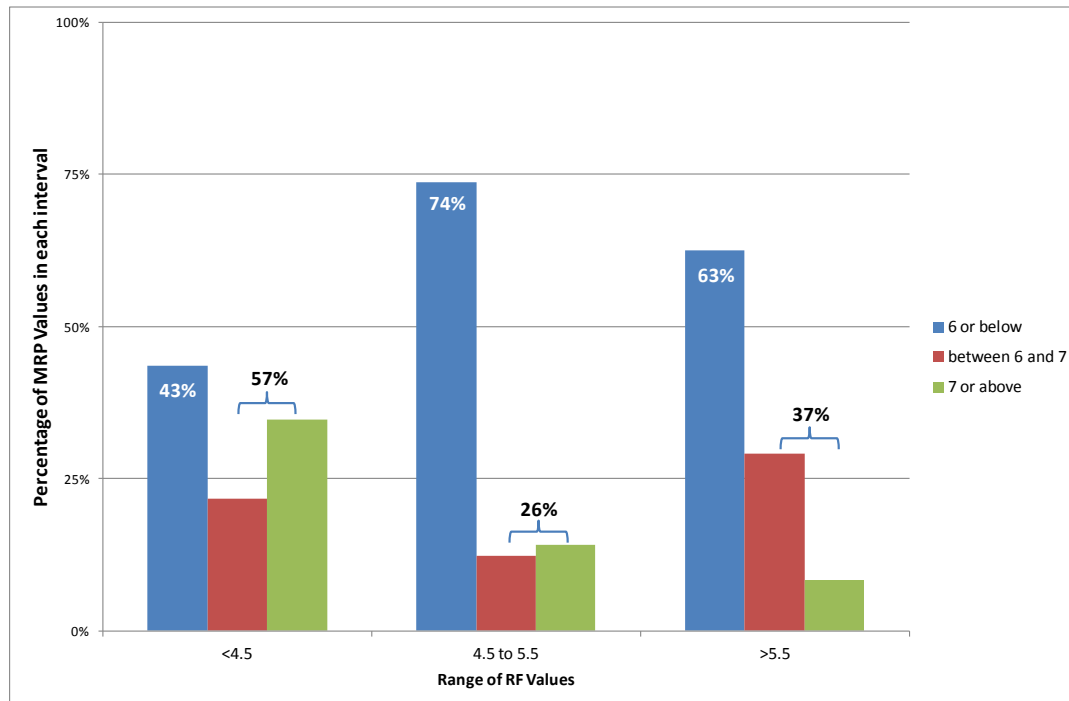


Source: SP AusNet analysis

The final important finding from the Ernst & Young study is that independent experts have tended to increase their estimates of the MRP in response to the reduction in the estimated risk free rate. The AER has expressed its view that the MRP and risk free rate are not negatively correlated. However, the evidence from independent experts contradicts the AER’s views. It is a matter of fact that independent experts typically adopt higher MRP estimates when the risk free rate is below 4.5 per cent, as shown in the histogram below.

2013 – 2017 GAAR: SP AusNet Response to AER’s Draft Decision

Figure 5-8: Histogram of MRP against risk free rate



Source: SP AusNet analysis

The above figure shows that the majority (57 per cent) of independent expert reports adopt an MRP above 6 per cent when the risk free rate is less than 4.5 per cent. For risk free rates that are closer to the long term average, the percentage of independent expert reports adopting an MRP of 6 per cent increase to approximately 74 per cent. In other words, the independent expert reports provide evidence that the MRP and risk free rate are negatively correlated. Although this is not a formal statistical test, SP AusNet’s analysis suggests that the probability of this effect occurring by chance is less than 2 per cent.

Professor Stephen Wright’s independent expert report explains why the MRP and risk free rate are likely to be negatively correlated.⁵² He states that there is an increasing body of academic research and significant indirect evidence of negative correlation, noting that the MRP cannot be observed directly. It is noteworthy, therefore, that Ernst & Young’s compilation of independent expert reports provides further support for this phenomenon.

Contrary to the above evidence, however, the AER continues to apply a constant MRP even as the risk free rate reaches new historical lows. This evidence makes it plain why the AER’s approach produces a cost of equity that is below the prevailing conditions in the market for funds, contrary to rule 87(1).

In summary, the market evidence from the independent experts’ valuation reports contradicts the AER’s conclusions in its Draft Decision. The evidence strongly suggests

⁵² Stephen Wright, *Review of Risk Free Rate and Cost of Equity Estimates: A Comparison of UK Approaches with the AER*, 25 October 2012, p. 14.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

that the AER's cost of equity estimate is too low. Indeed, Ernst & Young conclude that:⁵³

"The cost of equity estimated by the AER in the Draft Decisions, does not meet the requirements of Rule 87(1) of the National Gas Rules that it be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services."

This conclusion and the market evidence collated by Ernst & Young is consistent with the expert opinions of Professor Alan Gregory and Professor Stephen Wright from the UK, which is discussed shortly. Furthermore, it is consistent with the analysis provided by CEG and SFG, as well as IPART's view (discussed further in section 6 below), that it is necessary for regulators to adopt appropriate approaches to estimating the risk free rate and MRP given the current market conditions.

5.4 Evidence from investors and fund managers suggests AER error

In a recent submission to the AEMC, the Financial Investor Group stated:⁵⁴

"Recent regulatory decisions have employed an overly mechanistic approach to the NGR provisions. The mechanical application of these provisions has produced cost of equity estimates that are unprecedentedly low, and which do not accord with capital market expectations."

The Financial Investor Group is an affiliation of the major investors in Australian energy network assets. Members⁵⁵ have interests in well over \$30 billion of Australian energy network assets, most of which are regulated. This is a substantial proportion of Australia's privately owned energy network assets, and about 40 per cent of those subject to economic regulation.

The Financial Investor Group's submission drew the attention of the AEMC to various statements made by professional investors and fund managers, which outline the concerns of the investment community in relation to the regulators' recent cost of capital decisions.

The first statement was prepared by Matthew Riordan and John Lake, portfolio managers at Paradise Investment Management Pty Ltd.⁵⁶

"Paradice Investment Management is an Australian based Fund Manager that oversees investment worth \$6.9 billion. The bulk of this money is invested within Australian Equities."

"Within the Australian market we have a large number of companies to invest in that are exposed to many sectors and geographies. All of these companies and sectors are ultimately competing against each other for our marginal investment dollar. The Utilities sector is quite minor in the market, representing only 1.8% of

⁵³ Ernst & Young, *Market Evidence on the Cost of Equity, Victorian Gas Access Arrangement Review 2013-2017*, November 2012, p. 6.

⁵⁴ Financial Investor Group, *Submission to AEMC Draft Determination on the economic regulation of network services*, 4 October 2012.

⁵⁵ Members include APA Group, ATCO Gas, Cheung Kong Infrastructure, DUET Group, Envestra, Hastings Funds Management, Power Assets Holdings Ltd, Singapore Power and Spark Infrastructure.

⁵⁶ See <http://www.pinvest.com.au/>.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

our investment universe. As a house we currently hold an overweight position within the Utilities sector. This is a function of the earnings and yield certainty that these assets are expected to provide in what is a very uncertain time within the equities market.

We have some concerns over the proposed draft rule changes and their potential implications for the sector. Our main concern is that there is insufficient consideration being given to the interplay between the various factors that are used in the return calculations. For example, the current low risk free rate in the form of the 10 year bond yield is a function of the heightened level of uncertainty that exists in the market at the moment which in turn should be reflected by a higher equity risk premium. There is ample evidence of this higher equity risk premium in the current subdued activity levels in the primary and secondary issuance markets. Additionally, there is also a fair argument that the Australian 10 year bond yield is being artificially subdued by high levels of foreign buying given its place in the increasingly scarce pool of AAA rated securities.

Regardless of the many different views that can be taken on the different factors and outcomes the key for us from an investment point of view is that there needs to be long term consistency in the allowable returns for regulated utilities. In this regard it is important to avoid a situation where investors feel that the rules can be changed on a short term basis and/or we can end up with very different outcomes for an asset based purely upon the date at which a decision is made and the market vagaries at the time. Failure to achieve this within an assets class that is perceived as defensive would certainly result in a flow of money away from the sector. With the ongoing growth of the Australian economy and population in the long term, the need for further capital to be invested into Utilities projects is a given. The private sector is going to be a key source of this capital, Stability in regulatory decisions, not volatility, is needed otherwise there is an elevated risk to us investing our clients' superannuation dollars in the listed Utilities sector."

The following statement was prepared by Fidelity Worldwide Investment, an asset manager providing services to investors all over the world outside the US and Canada, which currently manages over US\$210 billion for private individuals and institutions:⁵⁷

"We acknowledge that the current regulatory approach is overly prescriptive and needs to be better linked to present market conditions. We welcome the implementation of a rate of return framework which will include a number of different models and financial analysis with a focus on market data and real-world market conditions. The framework should also define appropriate guidelines and limitations to ensure that the current regulatory accountability is maintained."

The following statement was prepared by an institutional investor with more than \$130 billion of funds under management and invested on behalf of its clients, \$5 billion of which is invested in utility and infrastructure assets throughout the globe:

"As a long standing investor in regulated utilities and infrastructure assets. What attracts us and our clients to the sector is the long standing consistent application of a developed regulatory framework, the stable and appropriate level of returns provided by regulated utilities. Of course, any changes to the framework, return structure and/or appropriateness of the returns provided will increase the risk of investing in the Australian based assets and as a global investor with the

⁵⁷ See <http://www.fidelity.com.au/>.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

competition for capital considerable we very well would need to reconsider the level of investment allocated to Australia.”

The following statement was prepared by RARE Infrastructure, an Australian-based fund manager specialising in global infrastructure.⁵⁸

“Regulators need to ensure returns are sufficient for companies to attract capital, both debt and equity, to expand networks to meet customer requirements. Global Funds like RARE have a choice whether to invest in regulated assets in Australia. Despite RARE liking the Australian regulatory framework, if allowed returns are insufficient to compensate us for the risk, we will invest our clients’ capital elsewhere in the world.”

The above statements reflect broad investor concerns about the regulators’ approach to estimating the cost of capital. They were made in the context of the AEMC’s present deliberations on its draft Rule determination on the economic regulation of network services. Nonetheless, they are also highly relevant to the AER’s consideration of SP AusNet’s estimate of the cost of equity. Specifically, a consistent theme emerging from these statements and the Financial Investor Group’s submission is the concern among investors that recent regulatory decisions have produced cost of equity estimates that are unprecedentedly low, and which do not accord with capital market expectations.

5.5 Evidence from the UK and US regulators shows AER error

SP AusNet commissioned two reports – one from Professor Stephen Wright and the other from Professor Alan Gregory – comparing the AER’s approach to estimating the cost of equity, with the approach adopted by the AER’s UK counterpart, Ofgem. It should be noted that Professor Wright has advised Ofgem in relation to the cost of equity and was a co-author of the Smithers & Co report, which was commissioned by a consortium of UK regulators in 2003, and which remains an authoritative reference in UK regulatory decision-making on the cost of capital.

Professor Wright comments.⁵⁹

- i. *“Both the real market cost of equity and the MRP are inherently unobservable. But of necessity regulators have to commit themselves to a particular set of assumptions about these unobservable magnitudes. My view, in line with the UK regulators, is that regulators should work on the assumption that the real market cost of equity is constant. This approach is supported by quite strong evidence. For any firm with β reasonably close to one, the assumed real market cost of equity is by far the most important figure affecting the cost of capital for regulated companies. Thus this methodology has the added advantage of providing a stable regulatory regime. I believe this has proved its worth in the UK.*
- ii. *Any other assumptions should be consistent with this core assumption. As a direct implication, whatever assumption is made on the risk-free rate, the implied equity premium must move point by point in the opposite direction.*

⁵⁸ See <http://www.rareinfrastructure.com/>.

⁵⁹ Stephen Wright, *Review of Risk Free Rate and Cost of Equity Estimates: A Comparison of UK Approaches with the AER*, 25 October 2012, pp. 2 - 3.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

- iii. *The AER, by assuming that the risk premium is constant, and hence that the cost of equity capital has simply followed the risk free rate down point by point, has in my view made a clear error.*
- iv. *This behaviour is particularly inappropriate in the Australian context. By assuming a lower cost of capital, the AER is imposing a lower return on capital for the regulated company, at a time when profitability, and hence returns of unregulated companies are at a cyclical high, which is in turn inducing very strong investment. This puts regulated companies at a potentially severe disadvantage compared to unregulated companies, and implies the serious risk that regulated companies will under-invest.*
- v. *Whilst point ii) necessarily applies that in my approach (and that of UK regulators), the (estimated) MRP and the risk-free rate must move in opposite directions, this phenomenon cannot be directly observed, since the true MRP is inherently unobservable. However there is a considerable body of academic research that would suggest indirect evidence of this negative relationship, both by looking at economic determinants of the MRP, and at the properties of implied risk premia on other assets, such as corporate and government bonds.*
- vi. *In a world of internationally integrated capital markets, it would be absurd to assume that Australian companies are only raising capital from domestic investors. Thus international evidence and practice is highly relevant, especially for the cost of equity.*
- vii. *While I believe that the AER has got it wrong on the (crucially important) cost of equity, I have no significant criticisms of the assumptions the AER has made on the risk-free rate per se. The risk-free rate is observable (more or less), and to the extent that a regulated company has lower systematic risk than the market, this should in principle be taken into account. However, the combination of this methodology for the risk-free rate and the assumption of a constant risk-premium does cause major problems, by introducing instability into the assumed figure for the real cost of equity (as under point iii) above). My preference would be for the AER to adopt the approach followed by UK regulators, of assuming a constant real market cost of equity (as in point i) above). But if the AER continues to assume a constant MRP based primarily derived from realised returns, a possible compromise approach would be to combine this with a historic average risk-free rate. For a firm with β equal to one this would give an identical answer to my preferred approach; but even for a firm with β less than one it would result in an outcome that would be markedly superior to what the AER currently proposes.”*

Professor Wright points to academic literature that supports the proposition that the risk free rate and MRP are negatively correlated as the economy moves through business cycles. As noted in section 5.3, SP AusNet also has market evidence that independent expert valuers adopt MRP and risk free rate parameter values that are negatively correlated as the risk free rate falls below 4.5 per cent.

Professor Gregory applies the UK approach to the Australian data and concludes that if the AER had adopted an approach that was consistent with the UK experience, the resulting market cost of equity would have been substantially greater. For example, Professor Gregory comments:⁶⁰

⁶⁰ Alan Gregory, *The AER Approach to Establishing the Cost of Equity – Analysis of the Method Used to Establish the Risk Free Rate and the Market Risk Premium*, paragraph 21.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

"We can anchor this 1958-2005 estimate by using the most widely-cited international evidence of Dimson, Marsh and Staunton (2012), henceforth DMS. They show that for 1900-2011, the real mean realised RM for Australia is 8.9% (arithmetic) [see footnote]. The mean long run real bond rate is 2.4% (arithmetic). Again applying the forecast inflation rate of 2.5%, were one to use these historical estimates of real RM as an estimate the expected RM, the arithmetic average implies an $E(RM)$ of 11.62%. Note that the DMS figures assume that the value of imputation tax credits is zero."

Footnote Dimson, Marsh and Staunton (2012) Credit Suisse Global Investment Returns Sourcebook, Table 13, p.57.

Professor Gregory's conclusion that properly applying the Australian historic data would yield an estimate today of the market cost of equity of 11.6 per cent, is in stark contrast to the AER's estimate for the Victorian gas businesses of 8.98 per cent. It is worth recalling that Professor Gregory's estimate of the market cost of equity is closely aligned with the average cost of equity estimates of independent experts over the 2008-2012 period, which averages 11.5 per cent (as explained in section 5.3 above).

CEG's report (provided as RAAP Appendix 5.E) examines regulatory decisions on the cost of equity in the US. CEG's report states:⁶¹

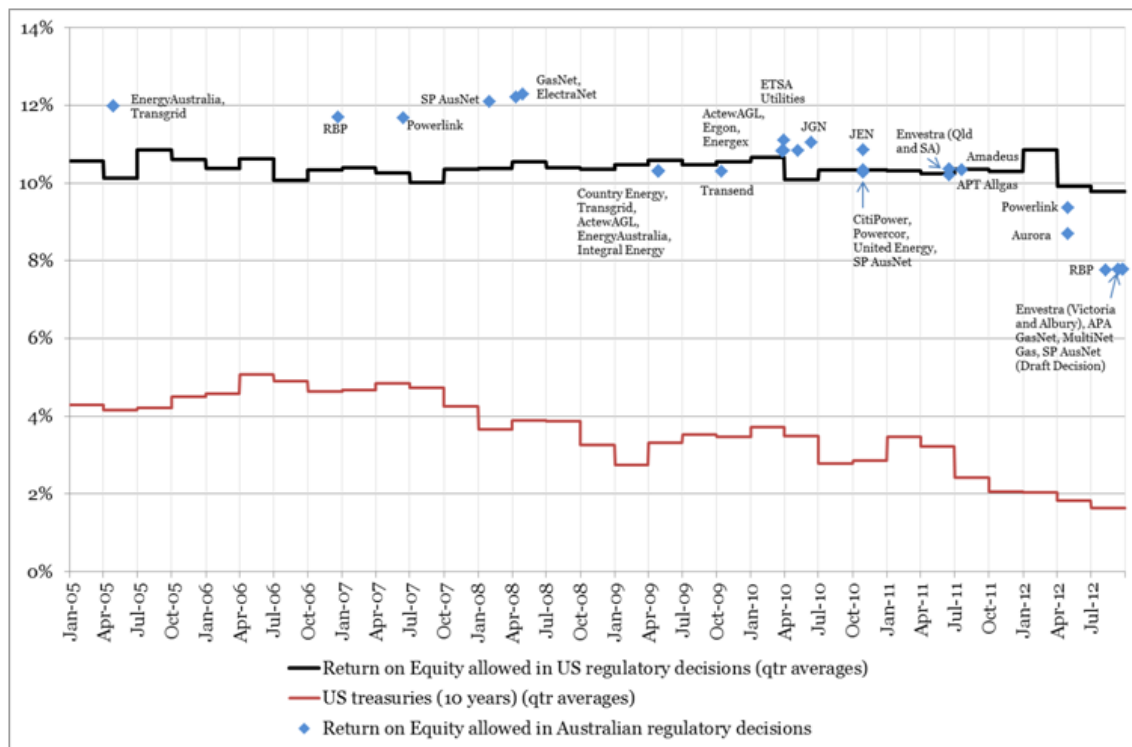
"I noted in my March 2012 report that energy regulators, along with most other monopoly regulators in the US, do not tend to reflect variations in the risk free rates, proxied by 10 year Treasury bond rates, in the allowed cost of equity for a regulated business. This reflects the fact that the US regulators attempt to estimate the cost of equity using a wholly forward looking methodology. As a result, any fall in Government bond yields due to a rise in risk aversion will tend to be automatically offset by higher allowed risk premiums."

CEG presents data which shows the stability in the US regulators' cost of equity decisions for regulated electricity transport businesses over the last 7 years. The data are shown in the figure below.

⁶¹ CEG, *Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM*, paragraph 85.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

Figure 5-9: US regulatory decisions over time broken into risk free rate and risk premium



Source: CEG, Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, Figure 9.

CEG explains that the figure above shows that over the period since 2005, the US government 10 year bond rates were volatile and were, in mid-2012, around 300 basis points lower than (less than half) their pre-crisis peak (2.05 per cent versus 5.07 per cent). However, the allowed return on equity did not move in line with movements in risk free rates – with the average return on equity allowed by US regulators relatively stable at 10.38 per cent in the face of movements in risk free rates. CEG notes:⁶²

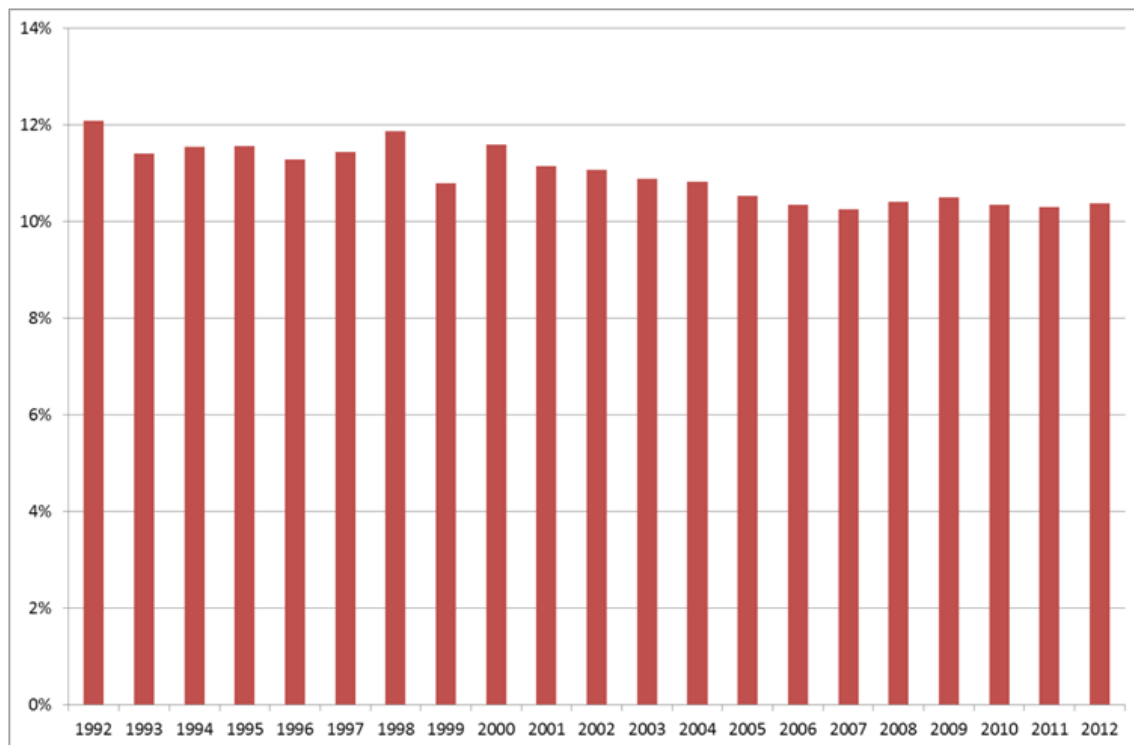
"It is clear that the AER's most recent decisions, in particular the draft decision relating to the Victorian distribution businesses and the final decision relating to RBP, are almost 3% below the return on equity allowed by US regulators on average. In examining this chart one should focus on the trend in the compensation for investment in each jurisdiction rather than the absolute level. The average compensation provided to equity investors in the US should be lower than for equivalent Australian decisions because US businesses are, on average, more lightly geared (less than 50%) than the AER's assumed 60% gearing level. The fact that, despite this difference in assumed gearing, recent Australian trends have led to much lower allowance in Australia is symptomatic of the problems I have identified with the AER methodology."

The CEG report notes that a pattern of stability is clearly observable in the return on equity allowances for regulated US energy firms over the last 20 years, as shown in the figure below.

⁶² CEG, Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, paragraph 90.

2013 – 2017 GAAR: SP AusNet Response to AER’s Draft Decision

Figure 5-10: US regulatory return on equity decisions over 20 years – average per year



Source: CEG, Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, Figure 10.

The CEG report concludes.⁶³

“For the US regulatory decisions from 2005 to 2011 assessed in March 2012, I estimated the average ROE as 10.38% (11.01% over the last 20 years). The average equity premium was 6.57% and average 10 year US Treasury rate was 3.80%. This was based on DGM analysis performed by regulators. However, this was for an average gearing of 47.98%. Adjusting this to 60% gearing gives an average cost of equity of 12.36%”

Of course, SP AusNet recognises that each piece of evidence presented in this Revised Access Arrangement Proposal is open to criticism, simply because of the inherent (and unavoidable) imprecision involved in estimating unobservable parameter values. Nevertheless, SP AusNet regards the weight of evidence from a variety of sources and approaches as compelling. It shows that the AER’s cost of equity estimate is unreasonably low.

As already noted, the error in the AER’s estimation method arises from mixing up two alternative methods. By combining the spot risk free rate and the long term average MRP, the AER’s methodology yields an estimate for the market cost of equity that is too low. If the AER adopted an approach similar to that adopted in the UK, or at least adopted consistently measured parameters for the risk free rate and MRP, this error would be corrected.

⁶³ CEG, Update to March 2012 Report on consistency of risk free rate and MRP in the CAPM, paragraph 92.

5.6 AER's reasonableness checks are in error

SFG Consulting reviewed the reasonableness checks applied by the AER in the Draft Decision. The SFG report is provided in RAAP Appendix 5.A.

SFG Consulting explains that some of the AER's "reasonableness checks" relate to estimates of trading and transaction multiples which are irrelevant. SFG notes that a sale price or trading multiple in excess of the RAB does not inevitably establish that the regulatory rate of return exceeds that required by investors. Rather, sales of regulated assets at a premium to the RAB could reflect a myriad of factors, which are examined in SFG's report. Moreover, half of the data relied upon by the AER relates to transactions that occurred over 6 years ago - prior to the GFC and the European sovereign debt crisis. To the extent that the prevailing conditions in the market now differ from the conditions in the market in 2006, transactions completed in 2006 would be of little relevance.

The SFG report explains that the use of broker WACC estimates as a source of evidence with respect to the actual cost of capital faced by regulated businesses is subject to many known limitations, and the weight applied to such evidence should reflect these limitations. In its Draft Decision, the AER noted that the range of broker WACC estimates in its sample is 7.76 per cent – 10.02 per cent, and that the AER's proposed allowed WACC of 7.16 per cent is 173 basis points below the mid-point of the range and 60 basis points below the minimum value in this range. SFG notes that from this, the AER concluded that:⁶⁴

"broker WACC estimates do not demonstrate that the overall rate of return, which is based on the analysis of individual parameters, is not commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services".

SFG then observes:⁶⁵

"This conclusion begs the question of how a reasonableness check should properly be applied and interpreted. In the case at hand we have the regulatory estimate being checked for reasonableness against a number of alternate (broker) estimates. The regulatory estimate is below the entire range of alternate estimates – it is even materially below the minimum of all alternate estimates. In our view, this should not be interpreted as confirming the reasonableness of the regulatory estimate.

Indeed, if this evidence does not lead one to question the reasonableness of the regulatory estimate, it would seem that no evidence would ever do so."

SFG has conducted its own reasonableness checks, noting that there are three components to the return to equity holders:

- dividends;
- capital gains, and
- imputation tax credits.

SFG calculates a lower bound on each of the three components of return that investors might reasonably expect to receive from the average comparable firm. Taken together, this

⁶⁴ SFG Consulting, *The required return on equity: Response to AER Victorian Draft Decisions*, 31 October 2012, paragraph 228.

⁶⁵ Ibid, paragraphs 229 and 230.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

provides a lower bound on the aggregated return that investors might reasonably expect to receive from an investment in a comparable firm. This lower bound can then be compared with the allowed regulatory return as one test of whether the allowed return can reasonably be considered to be commensurate with the prevailing conditions in the market for funds.

SFG calculated the following lower bound:

- The return from dividends is based on the average dividend yield currently available from comparable firms (7 per cent). The lower bound estimate assumes that the firm simply maintains the current dividend and there is no growth in dividends whatsoever.
- The return from capital gains is based on the AER's estimate of expected inflation (2.5 per cent). The lower bound estimate assumes that the firm's share price will maintain its value in real terms and will provide no real return at all to investors.
- The adjustment for imputation credits is based on the AER's estimate of gamma (0.25) and the corporate tax rate (30 per cent).

These conservative (low bound) assumptions imply that investors in the shares of comparable firms would reasonably expect to receive a return on equity of at least 10.5 per cent, compared with the AER's allowed return on equity of 7.78 per cent. This lower bound calculation implies that the spot MRP substantially exceeds the 6 per cent assumed by the AER.⁶⁶

SFG comments that it is not clear how the AER's allowed return on equity of 7.78 per cent can be reasonably considered to be commensurate with the prevailing conditions in the market for funds when investors in comparable firms can reasonably expect to receive a return that is at least 35 per cent higher than what is being allowed to investors in the benchmark firm.⁶⁷

5.7 AER's reliance on the 'present value principle' is in error

In rejecting SP AusNet's approach of combining long term average measures of the risk free rate and the MRP to estimate the cost of equity, the Draft Decision states:⁶⁸

"The use of prevailing CGS yields is consistent with the use of the building block model because this model is designed to uphold the present value principle, as advised by Associate Professor Lally."

SP AusNet asked Professor Wright and Professor Gregory to review and comment on the advice provided to the AER by Associate Professor Lally in two papers provided as RAAP Appendices 5.G and 5.H.⁶⁹

In relation to Associate Professor Lally's paper titled "The Risk Free Rate and Present Value Principle", Professor Wright stated:⁷⁰

⁶⁶ Ibid, paragraphs 82 and 83.

⁶⁷ Ibid, paragraph 84.

⁶⁸ AER, *Access Arrangement Draft Decision SPI Networks (Gas) Pty Ltd 2013-17*, Part 1, page 39 (pdf).

⁶⁹ Associate Professor Lally, *The Risk Free Rate and Present Value Principle*, 22 August 2012; and Associate Professor Lally, *The Cost of Equity and the Market Risk Premium*, 25 July 2012.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

“Professor Lally’s analysis is theoretically correct, but only given his key assumption, that the income stream of the regulated monopoly is risk-free. When this assumption does not hold (which in all practical instances it does not), the appropriate discount rate in his analysis must – as he acknowledges – contain an additional risk premium. Thus the present value principle is only operational in practice if we make assumptions about the overall cost of equity of the regulated company: i.e., the sum of the risk-free rate and a risk premium. In contrast to the risk-free rate, the overall cost of equity is not directly observable. As a result the practical application of the present value principle is crucially dependent on what assumptions are made about this crucial magnitude: it is emphatically not simply dependent on a market-based measure of the risk-free rate.”

Professor Gregory reached the same conclusion:⁷¹

“Unfortunately, Lally quite specifically rules out a constant risk free rate and a constant risk adjusted rate in his assumptions and his examples. He assumes that the risk free rate changes each period, and since, elsewhere, he has argued for the use of a constant market risk premium (MRP), the implication is that the appropriate discount rate varies each period in line with changes in the underlying risk free rate. [...] Reduced to basics, the true position is far more complex than Lally suggests, to the point where his conclusions are invalid.”

Both Professors Wright and Gregory conclude that the present value principle (PVP) does not prohibit the use of a long-run average as a proxy for the risk free rate. Professor Gregory concludes his analysis as follows:⁷²

“I do not believe that either the UK approach or the IPART approach is inconsistent with the PVP, because both methods represent a genuine attempt to establish the WACC as accurately as is possible in a real world setting with uncertainty surrounding each of the parameters (including the risk free rate). There is nothing in this approach that prohibits the incorporation of a long run average risk free rate.”

5.8 AER's cost of equity estimate is inconsistent with the NGR and NGL

SP AusNet asked Mr Jeff Balchin to provide a detailed examination, having regard to the extrinsic material, of the meaning and intended purpose of:

- the National Gas Objective set out in section 23 of the NGL, particularly in relation to the rate of return on capital and the cost of equity; and
- the Revenue and Pricing Principles set out in subsections (2), (5), (6) and (7) of section 24 of the NGL, particularly in relation to the rate of return on capital and the cost of equity.

Furthermore, Mr Balchin was asked, in light of his findings, whether he considers that the cost of equity and resulting WACC adopted by the AER in its Draft Decision are consistent with the NGL and the Revenue and Pricing Principles.

⁷⁰ Stephen Wright, *Response to Professor Lally's Analysis*, 2 November 2012, page 2.

⁷¹ Alan Gregory, *Risk Free Rate and the Present Value Principle*, 31 October 2012, paragraph 13.

⁷² Ibid, paragraph 25.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

Mr Balchin's report is provided as RAAP Appendix 5.I to this chapter.

In his independent expert report, Mr Balchin included analysis on the likely consequences for customers if the cost of capital is set too low. He explained that:⁷³

"In my view, the guidance from the NGO for this task is that the regulated rate of return should be set with reference to an estimate of the "true" cost of capital, but with a consideration as to whether there may be a net benefit from varying from this starting point in view of the imprecision of the estimate and the potential losses from erring on the upside compared to the downside. I consider that the efficiency and consumer components of the clause provide materially the same guidance on this matter. I note the following in particular:

If the regulatory rate of return is set below the true cost of capital, then the incentive and capacity for service provision over the long term would be imperilled. This would amount to an allocative inefficiency as the provision of natural gas services would be withdrawn even though they are valued by consumers by more than other goods and services in the economy. Equally, it would be detrimental to the long term interests of consumers given that they value service provision in excess of the cost."

SP AusNet notes that the AER's Draft Decision has given no consideration to the asymmetric and adverse consequences that would arise if the cost of capital were set too low. If the AER had given consideration to this issue, it would not have set a cost of equity that is significantly lower than AER estimates only 12 months earlier.

Furthermore, it is evident that the AER's estimation method produces volatile cost of equity estimates over time. Consequently, network companies with substantially overlapping regulatory periods will have markedly different rates of return and network prices. This will distort upstream and downstream investment, create allocative and dynamic inefficiencies, and distort efficient investment in, and use of, gas pipelines. All of these outcomes are contrary to the NGO.

5.9 Summary of key findings

Before turning to SP AusNet's proposed cost of equity, it is useful to summarise the findings thus far.

The AER's approach to estimating the cost of equity is in error because does not adopt either of the following method:

1. Adopt 'spot estimates' of the risk free rate and MRP; or
2. Adopt long-term averages of the risk free rate and MRP.

Instead the AER takes a mix from method 1 and method 2. The AER's estimate of the MRP is a long-term average, while its estimate of the risk free rate is a 'spot rate'.

SP AusNet submits expert opinions from Professor Alan Gregory and Professor Stephen Wright, which say unequivocally that the AER has made an error.

The AER claims that its estimate of the MRP is a 'spot' rate, and it has not made an error. However, it is clear from the long history of regulatory decisions that an MRP of 6 per cent is

⁷³ Jeff Balchin, *Economic interpretation of gas legal instruments*, November 2012, page 11.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

a long-term average. Furthermore, if it were a spot rate, the AER would update it at the time of its Final Decisions, which it does not.

SP AusNet has submitted compelling evidence that the MRP exceeds 6 per cent. It is open to the AER to revisit its estimate of the MRP if it so wishes. However, SP AusNet's approach in this Revised Access Arrangement proposal is to adopt a long term average of the risk free rate, and to combine this with a long-term average of the MRP to derive an estimate of the cost of equity. This method is supported by UK regulators and IPART, both of whom recognise the problems associated with adopting a 'spot' measure of the risk free rate when this parameter is at an all-time low.

The criticisms that Associate Professor Lally has made of SP AusNet's proposed approach are unfounded. Three independent expert reports have identified important deficiencies in Professor Lally's analysis.

SP AusNet has commissioned a detailed analysis of the available market evidence contained in independent expert reports that value companies in accordance with Corporations Law and ASX requirements. The evidence directly contradicts the AER's conclusions in its Draft Decision and establishes those conclusions do not comply with rule 87(1). Most importantly, the market evidence shows that the cost of equity has not fallen to the extent suggested by the AER.

Mr Balchin explains that the AER's current approach does not satisfy the NGR and the NGL.

In the following section, SP AusNet explains how the errors in the AER's approach should be addressed. In developing its preferred position, SP AusNet had regard to the independent expert opinion of Mr Greg Houston of NERA provided as RAAP Appendix 5.J. In his report, Mr Houston concluded:⁷⁴

"In my opinion, taking into account the principles I set out in section 4.1, and the observations by respected commentators and market evidence that I set out in section 4.2, current market circumstances give rise to considerable doubt that the acknowledged pre-condition for safe application of the AER's methodology for determining the risk free rate is satisfied.

It follows that the AER's method of estimating the risk free rate by reference to a date as close as practicable to the commencement of the regulatory period is not, in fact, 'theoretically correct' in a context where there is evidence suggesting a material change in investors' risk appetite and where significant weight is to be placed on historical estimates of the MRP for determining the cost of equity. Rather, the consequence of my analysis is that a departure from the AER methodology for determining the risk free rate component of the cost of equity is warranted."

Mr Houston, who was one of the architects of the current cost of equity estimation approaches adopted by the AER, sees no difficulty in adopting SP AusNet's proposed approach of averaging the risk free rate, given existing market conditions. In the next section, SP AusNet sets out its cost of equity proposal.

⁷⁴ Greg Houston, *Estimating the Cost of Equity under the CAPM*, November 2012, p. 30.

6 SP AusNet's estimate of the cost of equity

As already noted, SP AusNet accepts the following aspects of the Draft Decision:

- the CAPM may be used to estimate the cost of equity; and
- the equity beta should be estimated to be 0.8;

SP AusNet has demonstrated that in unusual capital market conditions such as those prevailing, the AER's standard regulatory approach to estimating the cost of equity fails to produce an outcome that meets the requirements of the NGR. As noted, the AER's approach combines an estimate of the MRP that reflects a long-term average with a spot risk free rate at a time when yields on government bonds are at unprecedentedly low levels. In these circumstances, it is instructive to examine the approach applied by the NSW independent economic regulator (IPART) in its December 2011 Final Report on its review of water prices for Sydney Desalination Plant (SDP) Pty Limited. IPART's Final Report stated:⁷⁵

"We determined the values for the parameters of the WACC based on market conditions over the 20 days to 28 October 2011. The risk free rate and debt margin have been affected by market volatility and the prolonged weak market following the credit crisis of 2008. The change in these factors has potentially created a disparity between these parameters (for which we use short term average data) and the market risk premium (for which we use long term average data).

However, the effects of this disparity are mitigated by our decision to use a point estimate of 6.7%, which is 80 basis points higher than the midpoint of our estimated WACC range. In doing so, we had strong regard to the calculated WACC using longer term averages for market parameters."

IPART explained its approach as follows:⁷⁶

"For this review, we consider that the value of the risk free rate is currently well below long term averages and that there is a high level of market uncertainty. We consider the risks in setting a 5-year determination in the current conditions are more significant than under normal market conditions.

An alternative approach is to look at the long term averages as a reference point for the sum of the market risk premium and risk free rate.

Therefore, to guide our decision-making on the point estimate for the WACC, we estimated the long term averages of the risk free rate, inflation rate and the market risk premium. We found that using these long term averages, the WACC range would be 5.9% to 7.8% with a midpoint of 6.7%. This midpoint is 80 basis points higher than the midpoint of the range we determined for the WACC using short term averages for these parameters, but still within this range."

IPART also commented:⁷⁷

⁷⁵ IPART, *Review of water prices for Sydney Desalination Plant Pty Limited from 1 July 2012 - Final Report*, December 2011, p. 80.

⁷⁶ Ibid, p. 93.

⁷⁷ Ibid, p. 85.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

"We also recognise that the risk free rate ... is historically low. Indeed, this was one of the main reasons we decided to set the point estimate for SDP's WACC towards the top of the possible range we estimated."

IPART effectively adjusted its WACC range by using long run averages, in particular for the risk free rate (which became 5.4 per cent as opposed to 3.9 per cent using the 20 day average approach).

It is noteworthy that the approach adopted by IPART is consistent with the approach applied by UK regulators (as explained in the accompanying expert reports provided by Professor Stephen Wright and Professor Alan Gregory). Professor Gregory summarises his assessment in the following terms:⁷⁸

"To the extent that the 6% MRP adopted by the AER is largely, but not exclusively, determined by the historical evidence, it is difficult to be prescriptive about exactly which estimate of RF is best combined with this in current market circumstances, but the pragmatic solution of both IPART and UK regulators (described in detail below) is to use a weighted average of the more recent historical averages and the current spot rate, with the majority of the weight being on the former. Given considerable uncertainty exists about both the "true" RF and MRP, such an approach is reasonable, in contrast to the AER's current position which is not."

In light of Professor Gregory's comments and the errors in the AER's approach already discussed, SP AusNet maintains its view that a long-term historic average MRP of 6 per cent must be combined with a long term average risk free rate. In this Revised Access Arrangement proposal, SP AusNet adopts a long term average measure of the risk free rate measured over 10 years. Although there are alternative measures that could be adopted, the IPART approach has the benefit of regulatory precedent in Australia. Furthermore, it directly addresses the following concern raised by the AER:⁷⁹

"A difficulty is that the time that is selected for the beginning of the period has a significant influence on the output. The selection of an appropriate averaging period is subjective and therefore subject to manipulation for desired results."

SP AusNet notes that by adopting a 10 year averaging period, as adopted by IPART, there can be no suggestion that the period has been adopted to manipulate the results. Furthermore, SP AusNet has ensured that the adopted nominal risk free rate takes account of any difference between historic and forecast inflation. In this Revised Access Arrangement proposal, therefore, SP AusNet has adopted a nominal risk free rate of 5.00 per cent.

Applying an equity beta value of 0.8 (in accordance with the AER's Draft Decision), the resulting cost of equity is estimated using the CAPM as follows:

$$\begin{aligned}k_e &= r_f + \beta_e \times MRP \\&= 5.00\% + (0.8 \times 6) \\&= 9.80\%\end{aligned}$$

⁷⁸ Professor Alan Gregory, *The AER Approach to Establishing the Cost of Equity – Analysis of the Method Used to Establish the Risk Free Rate and the Market Risk Premium*, paragraph 54.

⁷⁹ AER, *Access Arrangement Draft Decision SPI Networks (Gas) Pty Ltd 2013-17*, Part 3, p. 13.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

It is noted that SP AusNet's corresponding market cost of equity (assuming a beta of 1) is 11.00 per cent, which is closely aligned with Ernst & Young's market evidence for 2012, which shows an average estimate of 10.7 per cent.

7 SP AusNet cash flow analysis

The rate of return regime applied by the AER assumes that a benchmark business can maintain a BBB+ credit rating on the revenues provided.

SP AusNet took the Draft Decision PTRM and calculated key financial metrics generated by the resulting cash flows. In particular, the following two financial metrics were assessed:

- Free funds from operations after interest/Debt (FFO (after interest)/Debt); and
- Interest Cover Ratio (ICR) also known as FFO (before interest)/Interest.

These metrics are particularly important because to maintain a BBB+ stand-alone credit rating, Standard & Poors requires that a business maintain:

- an FFO (after Interest)/Debt of at least 10%; and
- an ICR of at least 2.5 times.

The results of that analysis are shown in the table below.

These results demonstrate that the benchmark business cannot maintain a stand-alone BBB+ credit rating on the cash flows provided in the Draft Decision in any year of the forthcoming access arrangement period. Indeed, these metrics would be unlikely to sustain a rating above BBB- credit rating levels. The key driver of the low cash flows is a cost of equity below that prevailing in the market for funds.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

Table 5-3: Credit metric analysis of SP AusNet Draft Decision

(Nominal \$M)	2013	2014	2015	2016	2017
Revenue	187.3	176.1	182.2	188.4	194.4
Less Opex	(60.8)	(52.8)	(60.4)	(51.9)	(55.5)
Less Tax	(7.4)	(5.9)	(3.6)	(6.6)	(6.2)
FFO (before interest)	119.1	117.4	118.2	129.9	132.7
Less Interest Expense	(51.0)	(54.2)	(57.2)	(59.8)	(62.0)
FFO (after Interest)	68.1	63.2	61.1	70.1	70.7
Average Debt	780.4	826.0	867.7	903.6	936.3
FFO (after interest)/ Debt	8.73%	7.65%	7.04%	7.76%	7.55%
ICR	2.34x	2.17x	2.07x	2.17x	2.14x

Source: Draft Decision PTRM and SP AusNet analysis

8 Debt Risk Premium

As previously noted, SP AusNet accepts the following aspects of the Draft Decision:

- In estimating the debt risk premium (DRP), the benchmark bond is a 10 year Australian corporate bond with a BBB+ credit rating. The benchmark bond is estimated using the extrapolated Bloomberg BBB rated 7 year fair value curve.
- The Bloomberg BBB rated 7 year fair value curve should be extrapolated to a 10 year maturity (consistent with the definition of the benchmark bond) using paired bond analysis.

SP AusNet notes that the AER has commenced an internal review into alternatives to the Bloomberg fair value curve, and that the AER intends to advise of a public consultation process on the development of an alternative in due course. SP AusNet also notes the assurance contained in the Draft Decision that:⁸⁰

“The AER does not expect to implement any new method in time for SP AusNet's forthcoming access arrangement period. This follows the Tribunal's previous

⁸⁰ AER, Access Arrangement Draft Decision SPI Networks (Gas) Pty Ltd 2013-17, Part 2, p. 96.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

comments on the consultation approach that should be adopted in the development of any new approach."

SP AusNet strongly concurs that the timetable for conclusion of the present Access Arrangement Review, and the current status of the "Economic Regulation of Network Service Providers" rule change proposal lodged by the AER, would make it impossible for the AER to complete a consultation process that accords with the Tribunal's comments, in time for a new approach for estimating the DRP to be applied in the Final Determination.

SP AusNet engaged PwC to provide expert advice on the DRP. PwC advised that the AER appears to have made a mistake in estimating the average paired bond increment to the DRP. It appears that the AER mistakenly attributed a $\frac{2}{3}$ weight to the Stockland paired bonds and a $\frac{1}{3}$ weight to the Sydney Airport paired bonds, when an equal weighting of 50/50 should have been applied to each paired bond. Correcting this error raises the AER's DRP estimate by 3 points to 379 basis points.

For the purpose of this response SP AusNet has adopted the Draft Decision's DRP estimate as a placeholder. SP AusNet will provide the AER with a short report setting out its actual DRP estimate once the agreed sample period has ended.

9 SP AusNet's Proposed Rate of Return

SP AusNet proposes a nominal cost of equity of 9.8 per cent, derived using historic averages of the risk free rate and the MRP in the CAPM, as shown in the table below.

Table 5-4: Derivation of cost of equity estimate

CAPM Parameter	Parameter value
Risk free rate	5.0%
Market risk premium	6.0%
Equity beta	0.8
Cost of equity	9.8%

Source: SP AusNet

SP AusNet proposes a nominal vanilla WACC of 7.96 per cent, which reflects the adoption of the parameter values set out in the following table.

2013 – 2017 GAAR: SP AusNet Response to AER's Draft Decision

Table 5-5: WACC and other parameter values

Parameter	Basis of estimate	Value
Cost of equity	CAPM; see Table 5-4	9.80%
Cost of debt*	Placeholder cost of debt equal to Draft Decision	6.74%
Capital structure (debt to total value)	This value is adopted in the AER's Draft Decision. Prevailing market evidence does not provide a compelling case to justify a departure from this benchmark.	60%
Corporate tax rate	This value is adopted in the Draft Decision. It is consistent with the statutory corporate tax rate.	30%
Value of imputation credits	This value is adopted in the Draft Decision. It is consistent with the decision of the Australian Competition Tribunal made in May 2011.	0.25
Inflation forecast *	This value is adopted in the Draft Decision. The value is a 10-year forecast estimated from the inflation forecasts published by the RBA and the long term inflation target of the RBA.	2.50%
Vanilla WACC		7.96% nominal
* NOTE: Estimates of the nominal risk free rate for the purpose of deriving the cost of debt, expected inflation and the debt risk premium will be subject to change to reflect prevailing interest rates and the corresponding 10-year inflation outlook over a sampling period to be agreed (on a confidential basis) between the AER and SP AusNet prior to the final decision.		

Source: SP AusNet

SP AusNet submits that the discussion presented in this chapter satisfies the requirements of clause 72(1)(g) of the NGR, which requires SP AusNet to propose a rate of return, explain the assumptions on which the rate of return is calculated and demonstrate how it is calculated.

Moreover, SP AusNet is confident that the information set out above and in the accompanying independent expert reports demonstrates that:

- SP AusNet's approach to deriving the WACC accords with the requirements of clause 87(2) of the NGR; and
- SP AusNet's WACC estimate meets the requirements of clause 87(1) of the NGR.

Applying the WACC to SP AusNet's projected capital base produces the forecast return on capital set out in the table below.

Table 5-6: Forecast return on capital

(\$M Nominal)	2013	2014	2015	2016	2017
Return on capital	102.10	109.30	116.61	123.55	129.88

Source: SP AusNet

10 Corporate Tax Allowance

SP AusNet has accepted the Draft Decision amendments for:

- the tax roll forward model for 2007 to 2011;
- the depreciation approach for Group 7 tax assets;
- standard tax asset lives (as pertains to land and buildings); and
- minor corrections of errors in the tax roll forward model.

However, SP AusNet has updated the 2012 inputs into the tax roll forward model.

While in agreement with the tax modelling methodology, SP AusNet does not accept the final calculation of the corporate tax allowance as it does not accept the Draft Decision with regard to opex, capex, the capital base, depreciation or the rate of return. Therefore, the revised calculation of the tax allowance reflects SP AusNet's Revised Access Arrangement Proposal in these areas.

In accordance with the changes outlined above and adopting a value for gamma of 0.25, SP AusNet's taxation allowance is shown below.

Table 5-7: Allowance for the estimated cost of corporate tax, 2013 to 2017

(\$M Nominal)	2013	2014	2015	2016	2017
Tax Allowance	4.48	6.95	8.09	9.19	10.29

Source: SP AusNet