



Major Energy Users Inc.

Australian Energy Regulator

Better Regulation

Rate of Return Guidelines

Comments on the Draft Guideline

Submission by

The Major Energy Users Inc

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Summary of MEU views

The Major Energy Users Inc (MEU) welcomes the opportunity to comment on the AER's Issues Paper on Rate of Return Guideline.

Overall, the MEU considers the AER Draft Guideline provides a slightly better assessment for the development of the Weighted Cost of Capital (WACC) to be used in regulatory decisions. However the outcome still exhibits many of the major flaws of the WACC approach used in the past.

The recognition of the need for the return on equity component to be less volatile over time and the introduction of a trailing average approach to developing the allowance for the return on debt are welcome changes, but the AER decision not to vary the level of gearing and the continuing use of Bloomberg fair value curves as a surrogate for the cost of debt despite strong evidence that these are not appropriate is concerning.

There three main areas where the MEU has considerable disquiet about the draft guideline.

Firstly, the AER has not assessed the gearing of the NSPs based on current evidence which points clearly to NSPs operating at much higher gearing levels than the notional 60% assumed by the AER.

Secondly, the AER has not used the available evidence to identify that the average term of debt is closer to 5 years than the noted 7 years. The ERA has provided extensive evidence to support this shorter debt term but this has been ignored by the AER.

Thirdly, and most importantly, the AER has not addressed the cost of debt to reflect the actuality that the NSPs access debt (especially government owned NSPs) at rates well below the corporate bond rate identified by Bloomberg fair values (BFVs) and the related curves (BFVCs).

Despite the opportunity to do so, the AER has not introduced changes to the cost of debt approach that the AER itself has identified in the past as providing allowances for the cost of debt that are clearly well in excess of the actual costs incurred by regulated energy networks. In particular, the AER has decided that ease of operation and apparent transparency of approach have been preferred to calculating an allowance for the cost of debt which delivers an outcome reflecting the actual costs NSPs have been able to achieve.

The AER has determined an approach to the cost of debt but failed to test if this provides actual outcomes achieved by NSPs, preferring to base its approach entirely on assessments of individual parameters without any holistic testing. As

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the inputs are much the same as those currently used, actual observations of the cost debt have already discredited these individually assessed parameters. By not testing the outcomes of the approach against reality, the AER approach is likely to continue to providing greater allowances for debt than is efficient. This is a major concern.

The MEU has consistently proposed that an approach which uses the actual costs of debt achieved by NSPs will provide a sound basis for ensuring that the incentive regulatory framework provides long term benefits to consumers, yet the AER has neglected to introduce a methodology for transferring the benefits of better techniques for securing debt (a cost to NSPs) to consumers as is the approach for all other expenditures.

This raises the question as to why the AER, which has worked hard to develop guidelines to drive the other expenditure allowances (opex and capex) towards their efficient levels, continues to use an approach to set the WACC at levels well above the demonstrated cost levels networks achieve and which will act to reduce (even surpass) the incentives to drive networks to efficient expenditures for other costs, especially capex.

Of all the new guidelines the AER has developed in its Better Regulation program, this guideline shows the least change to the past practices which have demonstrably delivered excessive benefits to NSPs.

1. Introduction

The Major Energy Users Inc (MEU) welcomes the opportunity to provide input into the AER review of the Rate of Return (RoR) guideline that it is required to develop as a result of the recent changes in network regulation in the National Electricity and Gas Rules. The MEU also welcomes the AER's consultations with stakeholders throughout the process of developing the guideline.

As with its responses to the earlier papers regarding this very important issue, the MEU highlights that it has based much of its response on feedback from its members and the knowledge they have imparted regarding their views on returns on equity and the way the provision of debt is treated. To avoid reiterating this, the MEU response to this Draft Decision should be read in conjunction with its other responses on this issue and for the views espoused therein to be considered by the AER.

1.1 An overall view of the Draft Guideline

Overall, the AER has reached a draft position in relation to the development of the rate of return (weighted average cost of capital - WACC) will be based on:

- The same process being used for setting the WACC for gas and electricity and transmission and distribution
- Gearing of the benchmark entity will be set at 60% debt and 40% equity.
- The return on equity (RoE) will be a function of the risk free rate (RFR), a market risk premium (MRP) and an equity beta in the form of:

$RoE = RFR * equitybeta * MRP$ where

- The risk free rate will be calculated from the yield of 10 year Australian Commonwealth Bonds calculated just prior to the start of the regulatory period and averaged over a 20 day period. It is asserted that this will provide an accurate forward estimate for the cost of equity
- The MRP will be assessed at each regulatory reset and will be informed by historical earnings as is the current approach now but will also be influenced by other inputs (such as from an AER selected dividend growth model)
- The approach to calculating the equity beta is still to be determined, but the output will be moderated by assessing the outcome of the Black CAPM

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- The calculated outcome will be assessed against a number of other comparators and maybe adjusted up or down in steps of 25 bp to reflect these other assessments of RoE.
- The return on debt will be set on a rolling seven year basis with equal annual weights.
 - The cost of debt will be based on a credit rating of BBB+
 - The prime source for the cost of debt will be yields for 7 year Australian corporate bonds as provided in the form of Bloomberg Fair Value Curves. The outcomes from this primary source for the cost of debt will be tested against other market data.
 - The long term approach will be based on a 7 year trailing average cost of debt updated annually.
 - The transition approach will be based on sequential introduction of seven equal tranches of new debt over a seven year transition period.
 - The averaging periods for each annual update of debt will be set ex ante for a period of 10 or more consecutive days with the start time and number of days set by the NSP unless the AER disagrees with the NSP as to the start date
 - The return on debt will be calculated annually and the WACC updated annually to reflect movements in the return on debt
- As the model used will generate a nominal vanilla post tax outcome, tax imputation based on a gamma of 0.5 will be used

The MEU sees that the principles behind the development of the rate of return have considerable merit, but the MEU has a number of serious concerns about the actual processes to be used by the AER. These concerns are developed further in subsequent sections.

1.2 Expressing the consumers' concern

An article in the Age (Michael West) September 23 encapsulates the concern consumers' have with the approach to the cost of debt and the impact getting this wrong has on the entire regulatory process.

"Kennett's power play not right this time

There are now two major obstacles to selling the state silver [power assets].

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One, demand for electricity is falling and years of excessive investment mean asset write-downs are due. It is a tough job to sell anything, especially something so overcapitalised, in a climate of falling demand.

Two, the states are making a killing. Just how much of a killing is nicely encapsulated in a report from AMP Capital, which accuses state governments of "triple-dipping" on their poles and wires businesses.

AMP's heads of infrastructure and infrastructure research, Paul Foster and Greg Maclean, have identified three areas where the states are cleaning up - and at the expense of businesses and consumers whose bills have doubled over the past five years.

First, states have enjoyed inflated returns thanks to the industry structure of regulated returns and the consequent "systemic overinvestment", as Foster and Maclean put it, in poles and wires. The dividends of "gold-plating", if you like.

Second, there is a "debt arbitrage" to be had. For instance, the AAA credit rating of NSW affords it "an immediate arbitrage opportunity between the BBB-debt margins on which the regulated returns are based and the AAA margins the state pays on its general purpose bonds".

Third, there is a tax lurk. The state utilities don't pay federal income tax but they do pay a notional income tax to the state under the National Tax Equivalent Regime. This, say Foster and Maclean, is in the order of the dividend generated by the regulatory process. "This payment by itself effectively doubles the states' returns from the utilities and represents a major windfall to the states."

And, like the Demtel steak knives ad, there's more. **Unlike most government services, utilities produce strong and reliable cash flows that are independent of market cycles.** These sustain the strong credit ratings and help the states borrow more cheaply to finance other things.

Thanks to this favourable tax treatment and their low costs of borrowing, the state enterprises can gear up. Ausgrid is leveraged to 80 per cent whereas the ASX-listed utilities business Duet is geared 60 per cent to 65 per cent. The state enterprises don't require as much equity for their capital programs. On AMP's reckonings, their new capital programs are roughly two-thirds the cost of the private sector.

So there is no level playing field in the National Electricity Market between private and public operators and there is a substantial disincentive for NSW and Queensland to privatise. Being one of the nation's top infrastructure investors

it is no surprise the AMP report calls for privatisation but it says **regulatory reform should be undertaken first...**

The real point, however, is that prices in Victoria have still risen too much, far too much, despite the fabled efficiencies of privatisation. Since privatising in the 1990s, electricity prices have outpaced the rate of inflation, increasing by 170 per cent as opposed to a 60 per cent rise in the CPI.

Under the present industry structure, the regulator is still being "gamed" whether the poacher is a private entity or public." (emphasis added)

Unless the AER addresses this inequitable approach to the setting the allowance of the cost of debt highlighted by AMP, consumers will continue to suffer unnecessarily.

1.3 The overarching concern

As noted in the MEU response to the draft guideline on incentives, the MEU considers that the incentives guideline on capital investment is significantly impacted by the degree that the rate of return allowed by the AER is greater than the actual cost of capital that the NSP has - this difference is known as the WACC differential.

The AER has consistently observed that all of the guidelines need to be consistent with each other and has recognised the interdependence that all have with others. Of these, the relationship between rate of return and capital incentives is one of the most significant inter-relationships. Over many years, consumers and other stakeholders have identified that the WACC differential has contributed to a persistent and consistent over-investment in networks and the larger this differential, the greater the over-investment.

Over-investment has been identified as one of the major causes of real network prices increasing at such an alarming rate in recent years.

The clear import of this observation is that unless approach to setting the rate of return minimises this WACC differential, then the ability of the AER to limit over-investment in the networks will be reduced with a continuation of the ever increasing real cost of network service provision; such an outcome is not in the long term interests of consumers and therefore does not meet the requirements of energy Objectives.

The AER has a responsibility to ensure that the allowed rate of return is close to that which the NSPs actually achieve as this will result in a RoR which is near the point of maximum efficiency. If the AER allows a rate of return in excess of the actual costs of capital needed to provide the service, then the AER is entrenching an cost premium for consumers that is unwarranted.

The WACC differential is most obviously seen in relation to government owned

networks and it would appear that there should be a different approach for setting the rate of return between government and privately owned NSPs. The AER has addressed this and commented (page 50):

"Some user groups submitted that a government is able to access lower cost of debt due to its opportunity to access greater diversification of risk than is available to privately owned businesses. It may also be argued that the lower cost of capital is a result of the taxing powers available to the state, which provide reasonably unlimited credit insurance to the government. Klein submits that if taxpayers were compensated for the risk they assume for tax-financed projects, then no capital cost advantage would be conferred upon government finance. The risk premium on government finance would, in principle, be no different to that of private investors."

Whilst Klein might be correct in a very holistic way, the AER has overlooked the fundamental issue that the decision to over-invest is not made holistically but by the Boards of the NSPs which base their decisions on what is in the best interests of the NSPs. If the NSP achieves a better outcome by over-investing (and thereby making an increased profit and a higher dividend to its shareholders) it will do so. The Board only sees the actual rate of return it incurs and the rate of return it is allowed and uses only these to inform its decision. To assume that the Boards actually take into consideration the ideals espoused by Klein is fundamentally flawed. If they did then they would not be acting in accordance with the requirements of the Corporations law which very clearly states the directors must act in the best interests of the shareholders.

The AER (and the Productivity Commission which the AER refers to about this matter) has also not recognised that government risk is set on the basis of it being a conglomerate borrower underwritten by tax payers. This underwriting allows the government to borrow at high credit levels (typically AAA). The AER assumption drawn from the observation of the Klein comments, is that government owned NSPs have a higher risk than other users of government funds and therefore the NSPs should have a higher cost of debt to reflect this greater risk.

Such an observation is simply not supported by the facts. In fact, the security of regulated NSP debt is, if anything, lower than the debt provided to other government owned users of capital. In the case of electricity networks especially, networks have excellent security for the services through the structure of the electricity rules, where the primary risk for non-payment for network services provided is carried by retailers and networks are allowed to increase their prices in order to maintain their allowed revenues. Such security of revenue is not available to many other users of government debt (eg railways, hospitals, etc) implying clearly that the NSP debt has a much higher security than is implied by the AER observation. If government owned NSP debt is as secure as the average of all government users of capital, then its debt has the same rating as the parent. When properly analysed, the government owned

NSP debt probably has a higher security than most other government users and would therefore warrant a lower cost for the debt it is provided with.

For the AER to assert that government owned NSPs have a cost of debt the same as privately owned NSPs is not supported by the facts because private debt is recognised to be more risky than government debt.

The reason why privately owned NSPs might have a higher cost of debt compared to government owned NSPs is easy to identify. Lenders assess the default risk of the parent of the NSP. Governments and their subsidiaries have a very low risk of default whereas private firms have a higher risk of default. This view is supported by the commentary of in the report of AER consultant Chairmont. The report (page 41) shows that General Electric AAA rated bonds consistently show a premium to US AAA rated treasury bonds. If the parents are rated the same, there is an expectation that the cost of the debt would be the same, yet this is not borne out in practice and governments consistently acquire debt at lower costs than private firms because of the expectation of a lower default risk.

The MEU considers that the evidence shows that government owned NSPs can acquire debt at lower rates than privately owned NSPs merely because they are government owned and are seen to have a lower default risk. To assume that they have the same risk profile as a privately owned NSPs and therefore incur the same cost is not borne out by actual observation nor by deeper analysis of why the market does not agree with the AER assertion.

Unless the AER addresses this very real issue which causes a significant WACC differential for government owned NSPs, then consumers are condemned to pay more for the service than they need to and to suffer the impacts of unnecessary over investment.

1.4 Comparisons of alloweds with actual

the AER should track actual NSP rates of return and compare these to the amounts allowed. This will highlight the benefits that the NSPs will gain in terms of return on equity from the direct and indirect incentives that the regime provides and the difference between the provide a quantitative assessment of the regime benefits.

The MEU considers that there is a need to stress the importance of both longitudinal and lateral comparisons of the rate of returns both allowed and achieved as well as the return on equity . This comparison will lead to an assessment as to whether the allowed value has adequately compensated the firm for the risks they face and if the NSPs have evinced an ability to manage the risks and if has resulted in a better or worse outcome. Comparisons such as

this overcomes a number of the concerns raised by Frontier¹ in its assessment of risks (both in absolute and comparative terms) vis-a-vis the market as a whole.

Such an approach recognises that the development of the rate of return guideline used for regulatory purposes in providing a forecast whereas rates of returns (and more particularly returns on equity) seen in the market are measured ex post as an outcome of the operations of the firm.

1.5 A more risky regulatory environment?

It has been alleged that the new approach by the AER to regulation and the resultant guidelines have led to an increase in risk for the NSPs.

What the AER has done in its various new guidelines, is to improve the accuracy of the allowances that are to be provided to NSPs in the build up of the overall regulatory allowance

Having more accurate expenditure allowances do not increase risk and probably reduce it as the outcome should address potential under allowances. Only inefficient NSPs could see less allowance than they are used to.

The incentive programs return money to the NSPs if they improve their efficiency, but this does not necessarily increase risk. Instead it provides an avenue for NSPs to increase their profitability so if there were increased risks (which the MEU does not accept) any increased risks are offset by potential benefits.

The ex post review of capex can only eliminate inefficient expenditure (and only if the actual expenditure exceeds the regulatory allowance) so compared to now (where all inefficient expenditure is rolled in) there is potentially an increased risk but this is a risk that consumers should never have been exposed to in the first place. But managing this risk is not at all difficult - NSPs have only not to exceed the regulatory capex allowance and there is no change in risk. If the capex allowance is exceeded, NSPs can avoid the risk of inefficient capex being removed from the RAB by ensuring that all capex is demonstrably efficient. After all, NSPs should use their capex efficiently anyway.

In relation to setting the costs of equity and of debt, the AER is accessing more real market data to inform them of what are legitimate costs, so this does not increase regulatory risk. As the market data is predominantly sourced from the performance of firms operating with strong competition, it is important to note that regulated firms have many benefits that are not enjoyed by non-regulated firms.

¹ Assessing risk when determining the appropriate rate of return for regulated energy networks in Australia, July 2013

2. The same approach for both gas and electricity

The AER has concluded that the same approach to setting the rate of return should apply to gas and electricity, transmission and distribution. The MEU agrees with this conclusion.

In practice, it could be asserted that those NSPs reimbursed under a revenue cap have less risk than those reimbursed under a price cap. At the same time, electricity is more of an essential service than gas and therefore could be considered to have a lower elasticity in demand than gas.

The AER observes, quite rightly that despite the greater risks that a price capped NSP might have compared to the revenue capped NSP, the price capped NSP has a range of tools available to address any increased risk and can use these same tools to increase its revenue - ie increase its reward despite the possible higher risk. The MEU has seen that in a number of cases, price capped NSPs have been able to increase their profitability more than might be implied by the growth in demand whereas revenue capped NSPs have a lesser ability in this regard.

Electricity NSPs have the choice to be either revenue capped or price capped approaches so the MEU considers that the AER should not adjust the risk assessment between the two.

Gas NSPs are price capped and so are exposed to the risk of demand falling faster than might be forecast at the time of a determination. Equally, the MEU has seen that most of the time, when this occurs, the NSP has still be able to achieve the revenue forecast despite the lower than expected demand. At the same time, gas NSPs have been able to achieve revenues higher than forecast even when forecast demand has been achieved. This implies there is asymmetry in the risk face by gas NSPs allowing them to use the tools embedded in the Rules to minimise the risk of under-recovery of revenue but maximise the chance of over-recovery of revenue.

The empirical data supports the AER conclusion that there is little reason to have different approaches for gas and electricity or transmission and distribution. Equally, when assessing the value for input parameters, the AER has the ability to implement different values for equity beta to reflect any differences in risk that are perceived.

3. Gearing

The AER has determined that the benchmark entity will be geared (ie debt as a proportion of debt + equity) to 60%. The AER has set this based on the assessment made at the WACC review in 2009 and has decided not to change from this level.

The MEU finds this conclusion has little merit. In 2009, at the time of the last decision the AER was fully aware that there was already occurring a reduction in credit availability as a result of the Global Financial Crisis where one of the major world banks had defaulted on its loans, causing all banks to limit their credit. This resulted in a wide spread increase in equity to offset the lower availability of debt.

The AER has stated (page 177) that:

We consider a gearing of 60 per cent for benchmark efficient entity should be maintained given that:

- it is consistent with the proposed benchmark efficient entity definition
- empirical evidence supports a gearing of 60 per cent._

The MEU recognises that gearing of 60% is consistent with the historical approach used by the AER but queries whether 60% is the only value that is "consistent with the proposed benchmark efficient entity definition". The MEU considers that a much wider range of gearing levels would be just as "consistent with the proposed benchmark efficient entity definition" as 60%.

The AER then provides empirical evidence that 60% is an appropriate level of gearing when examining the data for a range of parents of energy networks. The AER rightly recognises that the gearing of parents must be used in the absence of a significant dataset of "pure play energy networks".

The AER has sought Bloomberg data² for the contemporaneous gearing of the six listed firms with a majority of their assets regulated³ - viz, APA Group, DUET, Envestra, SP AusNet, Spark Infrastructure and Hastings Diversity Utilities.

² Interestingly, the Bloomberg data included AGL as part of the initial set used to advise the AER for the 2009 determination on WACC. Although AGL is listed as a Utility in the S&P ASX market segmentation, in fact AGL is an "energy only play" and has no network assets. It should really not be included in the Utilities index at all and certainly not in the Bloomberg assessment for gearing. As AGL has the heaviest weighting of firms in the Utilities Index, AGL's low gearing would have heavily reduced the gearing calculated by Bloomberg

³ It is pertinent to note that, in the last 12 months, Hastings has been acquire by APA Group and the APA Group has a large fleet of non-regulated assets although these are mostly in the gas transmission sector.

The AER provides a table (explanatory statement C3) which provides long term gearing levels calculated on a number of bases.

Table C.3 Average gearing levels

Year	2009 WACC review	Bloomberg (market)	Bloomberg (market)
	2002–2007 ^a	2002–2012 ^b	2002–2012 (excluded) ^c
2002	65.1	54.5	65.8
2003	64.8	51.8	60.5
2004	61.7	51.2	55.1
2005	64.6	51.2	62.6
2006	63.0	56.6	61.9
2007	60.5	57.6	57.6
2008	n/a	68.3	68.3
2009	n/a	68.8	68.8
2010	n/a	65.5	65.5
2011	n/a	63.2	63.2
2012	n/a	60.6	60.6
Average	63.3	59.0	63.1

Source: AER analysis.

Notes: (a): AER, *Final decision: Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters*, 1 May 2009, p. 124; (b): analysis including full sample of businesses; (c): AGL, Alinta and GasNet excluded from the analysis.

The data used by Bloomberg including AGL - geared at less than 30% (column 3, see note b) is heavily weighted by the inclusion of this energy only firm in the later years of the assessment.

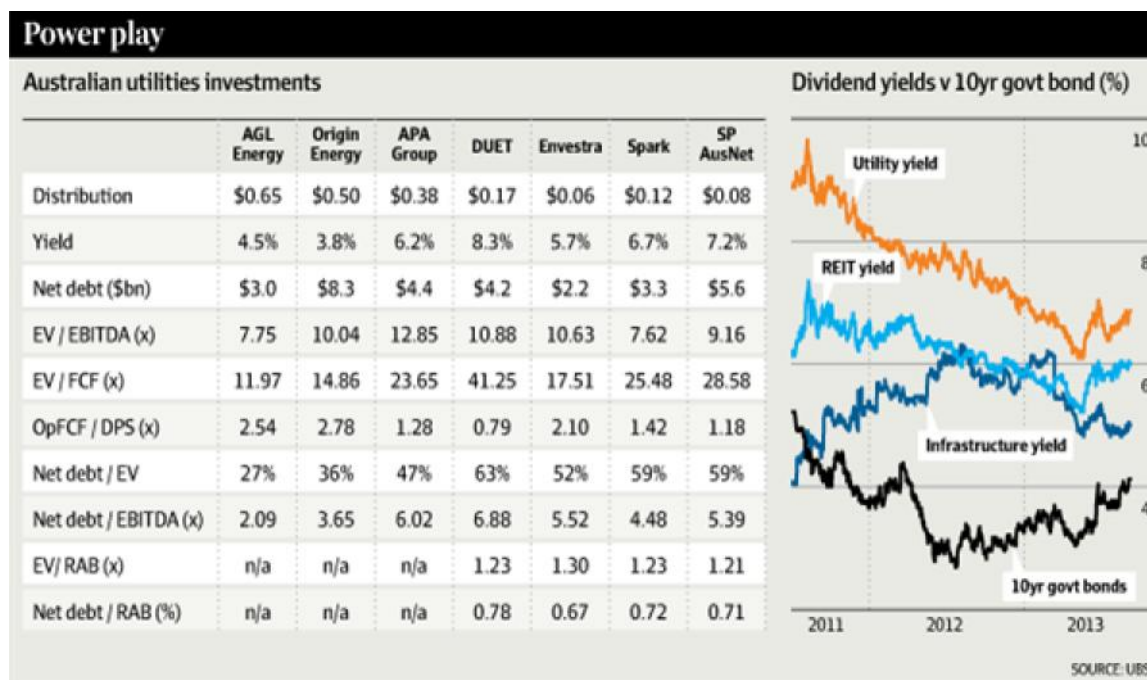
Intriguingly this assessment contrasts with a similar exercise carried out by ERA of WA⁴ where the ERA assessment has a slightly different values to that

⁴ ERA [Explanatory Statement for the Draft Rate of Return Guidelines 6 August 2013 page 49](#)

provided by the AER in table C3 but still draws a similar conclusion.

In contrast to the AER and ERA assessments which are based on investigations by Bloomberg and S&P data a separate review by UBS provides both support and divergence for the AER and ERA assessments of benchmark gearing.

The following table was published in the AFR 13 Sep 13



The article supports a similar conclusion to the AER and ERA for gearing when assessing the proportion of debt compared to the enterprise value (EV - line 7 - is the total value of assets plus the value of shares multiplied by the share price less the declared equity) and this implies a gearing for NSPs of 47% to 63%. What is important is that the net debt to regulatory asset value - RAB - (line 10) is much higher (ranging from 67% to 78%). The reason for this divergence is that the EV is significantly higher than the RAB (shown in line 9).

Investigation as to why this is so, reveals that the EV includes the entire asset base included in financial reports used by the data collection firms (S&P and Bloomberg) plus the premium between the equity and the total value of shares to calculate the firm's gearing. In particular, the EV includes the value of intangible assets⁵ and the share premium over equity. This results in a much larger value of assets than the AER assesses as the firm's RAB⁶.

⁵ For example, the 2012 financial report for SA Power Networks includes intangible assets of \$946k against a depreciated real asset value of \$3,897k

⁶ Essentially the RAB is the depreciated replacement cost of real assets including property, plant and equipment

If the asset value is inflated by including intangible asset values, then this deflates the gearing.

In its 2009 review of WACC (page 120), the AER defines gearing

"as the market value of debt as a proportion of the market value of debt and the market value of equity."

This raises a fundamental question as to whether this is a correct definition when used in terms of regulatory assessments

In a regulatory decision, the AER (and ERA) calculates the return on the RAB (the depreciated actual assets) which are the actual assets provided. Implicitly, the AER does not consider that a return on intangibles should be included in the regulated revenue. Yet the debt acquired for regulatory purposes is assumed to provide financing of real assets (essentially the RAB) and not intangible assets

As lenders only provide debt where the likelihood of default is low and there is adequate coverage in the cash flow to cover the interest payments, the debt is effectively provided against the assets which provide the revenue stream - the RAB - and not against the intangible assets which are included in the value of assets. This means the debt is provided against the RAB and not the total declared financial asset base.

The outcome of this means that the AER should be assessing gearing in terms of the net debt as a proportion of the RAB as this is consistent with how the AER develops the allowed revenue. To do anything other than this is inconsistent with the overall approach used by the AER.

If the gearing is assessed on the basis of debt to RAB, rather than support a view that the regulated networks are geared to 60%, then the gearing for the rate of return formula would reflect an outcome that the gearing is closer to 70% as identified by UBS.

This analysis highlights that the AER (and ERA) have used data that is not equivalent for the purpose it has used to draw the conclusions on gearing. As a result, the AER is proposing an outcome which results in an unnecessary detriment to consumers.

4. Return on equity

Using market data to assess an appropriate return on equity introduces two aspects that must be recognised.

- Market data reflects the performance of all firms operating in the market. The bulk of these are operating in a competitive environment and therefore do not enjoy the benefits that the regulatory regime provides to regulated monopolies. This means that the market data does not reflect the many benefits that regulated firms obtain from the regime. It is asserted that regulated firms are exposed to higher performance requirements than firms in competition, but equally, the regulated firms are provided with additional resources to ensure these requirements are fulfilled.
- Market data reflects the final outcomes that firms have achieved - that is the market data on equity returns includes the targeted returns on equity and the outcomes of better performance. In contrast, the return on equity allowed regulated firms is set on the basis of the market data (ie including any excess returns from better performance) but regulated firms are separately provided with the benefits of incentive schemes and are allowed to retain the results of better performance to augment their expected returns on equity.

The AER needs to be cognisant of what market data encompasses and how this is applied to the allowed returns on equity. In theory, the allowed rate of return on equity should include the "base return" plus the returns that the additional sources of NSP benefit that the regulatory regime provides.

4.1 An overview

The AER has carried out considerable investigation on various pricing models to assess the model most appropriate for assessing a forward looking return on equity (RoE). This investigation has been based on input from recognised experts, from its own analysis and from input provided stakeholders. Overall the conclusion reached about the models examined is that there is no one model that provides a "correct" answer and many that provide outcomes that are less reliable than others. This means that the AER has to find a model that provides a "least worst" outcome.

The MEU has identified that there is a disconnect between the investment decisions and expectations made by investors in financial assets and those of investors in real assets - whereas investors in financial assets (such as in bonds and shares) have the ability to readily sell these in an open market and thereby assess returns in short time frames, investors in real assets (such as poles and wires and pipelines) have a different view on the time frame involved to realise a return.

This difference in view allows investors in financial instruments to accept a considerable volatility in returns whereas those investors in real assets need greater stability in the return they get as the investment is made over a longer time frame.

The models used for forecasting future returns (eg CAPM and others) were developed primarily for forecasting returns in financial instruments rather than in real assets and therefore the outcomes of these models tends to be much more volatile than the returns sought on real assets. If the models are to be used to forecast returns for real assets, their application needs to be tempered with this difference clearly in mind⁷.

The MEU considers that the AER has approached their assessment with need for tempering outcomes to reflect this difference in views

4.2 The AER approach

On the basis of the investigations undertaken, the AER has proposed an approach based on the use of a foundation model where:

- The model to be used (the Sharpe Lintner CAPM) is recognised as having the least flaws⁸ when compared to other models and one which is widely used by regulators and other forecasters for the purpose.
- The inputs will be either unambiguous (such as the risk free rate) or will be moderated by assessing the inputs to the model from outputs of other models (specifically the market wide Dividend Growth Model for market risk premium and the Black CAP for equity beta)
- The model output will be assessed against the Wright CAPM and a number of other important comparators and views

In contrast, the networks propose an approach where all appropriate models are used for generating an output and the final decision is a distillation of all the outputs. The approach for weighting the various outputs is not clearly determined nor whether these weightings might change over time.

The Energy Networks Association (ENA) has stated that it considers the approach to deriving the forward looking RoE should provide⁹:

⁷ This view is reinforced by the ACCC Working Paper no. 9, September 2013 "Estimating the Market Risk Premium in Regulatory Decisions: Conditional versus Unconditional Estimates" by Peter Gibbard

⁸ This view is stated by Mackenzie and Partintgton in their analysis of the models that have been proposed to forecast the return on equity

⁹ ENA presentation at RoR Forum 1 October 2013

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- > Better quality estimates incorporating more information
- > Allowing investors and stakeholders to make 'reasonably good' estimates through time of the level of allowed rates of return
- > Less WACC-driven volatility for consumer prices and revenue
- > Flexibility to take into account wider evidence and changing market conditions
- > Provide a focal point for cost of capital debates

The MEU agrees with these high level aspirations and when the two basic approaches are assessed against these aspirations, it is clear that the AER approach will achieve these far better than the ENA proposed approach in that:

- The AER approach can be used by investors and stakeholders to assess an estimate of RoE before the AER publishes its views. Stakeholders can interrogate the assumptions made by the AER on a transparent basis. Whilst the actual adjustments the AER might make are undetermined before a draft decision, investors and stakeholders can input their own assessments of the key variables recognising the values the AER might have used previously
- In contrast the ENA approach requires extensive discretion as to:
 - which models will be used and why
 - the weighting of the outputs of the various models used
 - whether the weightings will vary over time
 - whether new models will be introduced into the mix

These increase the lack of predictability and reduces the transparency of decision making.

- The AER approach can be seen to provide much greater stability and predictability in the outcome compared to the likelihood that trying to balance a number of conflicting outputs would result from using a number of possible outcomes
- The AER approach provides consumers with confidence that the outcome is transparent and replicable whereas the high degree of judgement implied and required by the ENA approach does not provide any degree of confidence that the outcome is realistic.

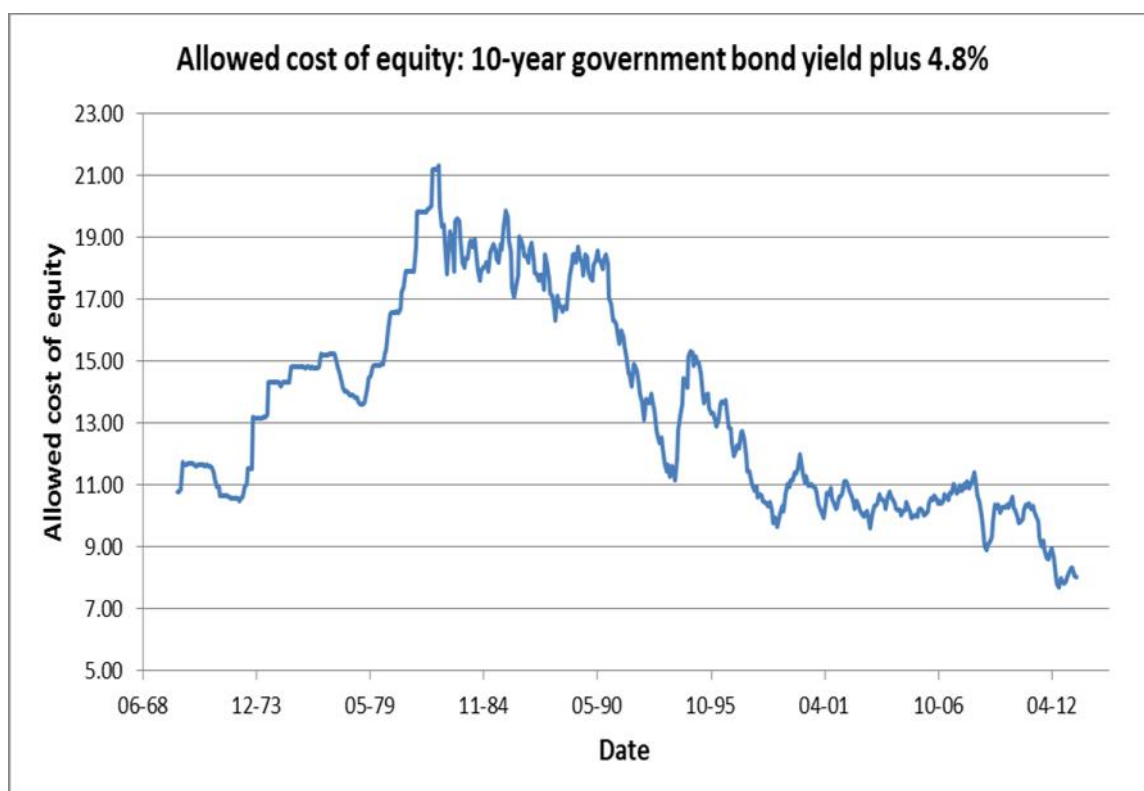
Overall the AER approach is pragmatic and meets the needs of investors and consumers with regard to consistency and replicability. The only residual concern is whether the outcome will consistently provide an outcome that meets the long term needs of investors.

4.3 Long term stability of RoE

The MEU has been of a consistent view that the return on equity needed by a

firm does not exhibit a high degree of longitudinal variability - that the return on equity expected by a firm is more constant than movement in other variables (such as the risk free rate) would imply. Therefore a calculated RoE which is based on a risk free rate which exhibits short to medium term volatility is likely to be more volatile than what a long term investor might expect.

The ENA presentation to the RoR forum on 1 October 2013 included a view on what the RoE would be when calculated using the Sharpe Lintner CAPM (based on a MRP of 600 bp and an equity beta of 0.8 used by the AER in recent decisions). The outcome was shown in the following chart

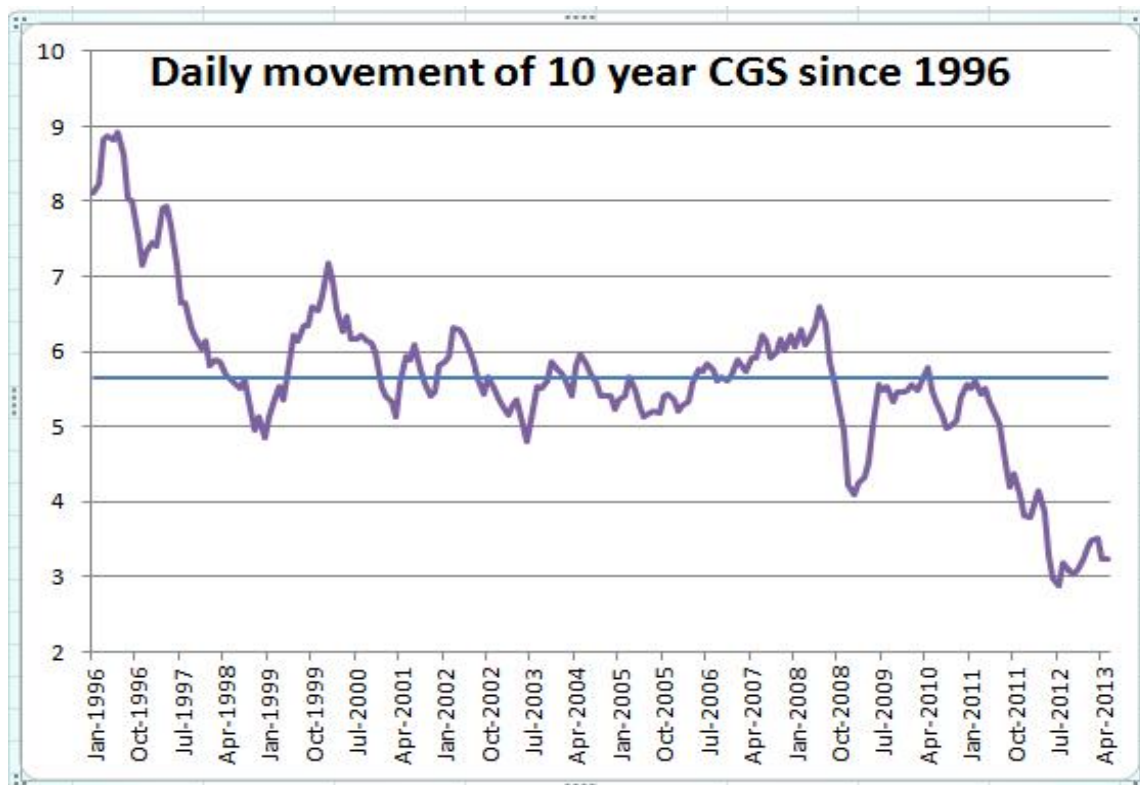


Source: ENA presentation

The current level of return on equity at ~7-8% might be seen to be too low and unlikely to be sufficient for a network to invest. Equally an RoE of 21% implied for the early 1980s (even with the high interest rates applying at the time) would be extremely detrimental to consumer interests and, in all likelihood, would not be expected by an investor with such a secure cash flow business nor would it be needed.

However, what has been seen since energy network regulation commenced in 1996, is a high degree of constancy in the risk free rate (RFR) (especially between mid 1997 and early 2011) where the RFR has averaged ~5.6%¹⁰.

¹⁰ The high bond rate leading into 1996 was associated with the "recession we had to have" and the fall off of bond prices from 2011 was attributed to the "hang over" experienced after the GFC.



Source: RBA statistics

Using this long term average for the RFR of 5.6% and adding a MRP of 600 bp with an equity beta of 0.8 results in a RoE of 10.4%. There is no doubt that this RoE was sufficient to provide incentive to networks to invest in long lived assets as there was at least adequate investment in the early years. In later years there has been a trend of over-investment when this return had been seen to be replicated over a decade or more, implying that the value might even be higher than actually needed.

The question that has to be addressed is really whether the RoE of 10.4% experienced was just sufficient for the needs (ie was efficient) or whether it was overstated and higher than required.

A theoretical calculation of the RoE made using the foundation model (moderated by inputs from other models) will display significant variation over time as the risk free rate varies. The AER is aware that the expectation of RoE is more stable than would result from the foundation model.

On page 13, the AER comments

"We consider that our proposed approach appropriately balances the theoretical and empirical evidence with the characteristics of regulated infrastructure. For example, our implementation of the Sharpe–Lintner CAPM will result in estimates of the return on equity that may vary over time. Alternatively, the Wright approach for implementing the Sharpe–Lintner CAPM

will result in estimates of the return on equity that may be relatively stable over time. The informative use of these implementations of the Sharpe–Lintner CAPM, in addition to other information, is expected to lead to more stable estimates of the return on equity than under our previous approach."

The clear import is that the volatility seen in the calculated RoE needs to be moderated to reflect a more stable expectation of RoE. The AER proposes to adjust the calculated RoE (in steps of 25 bp) to incorporate input from a variety of other sources, including that from the Wright CAPM¹¹, dividend yields and broker assessments.

The MEU sees that such an approach will provide an outcome that better reflects the long term expectations of investors in "real" assets (as distinct from "paper" assets with regard to RoE

4.4 The source of data used in the models

In their report to the AER, Mackenzie and Partington (M&P) examine the risk of investment in terms of investment in financial ("paper") assets where they accept that the market allows the sale of underperforming assets to buy better performing assets (ie manage their risk). In contrast investment in real assets does not provide this ability to off load underperforming assets for better performing assets.

M&P identify that the risk of an investment relates to the future cash flows and the opportunity to use the funds for another purpose (page 5)

"The principles for the required rate of return are that: it should reflect the risks for which investors require compensation; it should be forward-looking since it is to apply to cash flows in the future; and most importantly, it should reflect the opportunity cost of the investment. That is, the investment should be expected to return as much as an equivalent-risk security traded in the capital market, otherwise the investor would be better off not investing, but rather putting their money into the capital market instead."

This observation is crucial as the M&P work reflects the important aspect that the risk profile for the firm revolves around the certainty and sufficiency of the cash flow. When forecasting the expected cash flow for an investment of real assets and the reward to the equity investors, the cost of debt is removed from the residual cash flow. Thus the return on equity (and its certainty) is predicated on the risk of the "after debt cash flow". A regulated return provides a very high certainty of "after debt cash flow" based on the expected long term usage of long lived real assets.

¹¹ Whist the MEU does not agree that the fundamentals of the Wright CAPM (ie there is a negative correlation between MRP and RFR), the output of the approach does deliver a more stable view of the RoE

Assuming there will be a continuing use of the assets an investor in real assets will look at the long term return on the assets rather than short term returns as the investor is aware that the investment will continue to provide a certain cash flow for the life of the asset. Similarly, shareholders of long term assets have made the decision that the certainty of a given return¹² outweighs the risk of volatility of return or even loss of the investment. The investor has determined that the cash flow expected will deliver it the reward expected for the life of the investment. Such certainty comes with a long term view of a cash flow being in line with the expectation.

The return on equity seeks recognition of an ability to provide an amount of revenue to an NSP that will enable the NSP to continue to provide the service. So, to a degree, how the revenue is determined is secondary to the actual quantum and its overall sufficiency to support the expectation of the cash flow. At its most basic, if the calculated return on equity is insufficient but all other calculated costs are accurate, then the assumption is that the NSP would invest its funds elsewhere. This then raises the question as to where would it invest? The AER has assumed the entity is a "pure play" energy network so if the funds are not invested in real assets to enable the network to continue the service, where will the available funds be invested?

Looking at the return on equity in isolation detracts from the other aspects where the NSP can augment its return to offset any assumed shortcomings in the initial allowance. Incentives are provided to the NSP which should result in increased earnings for the NSP so the expected rate of return on equity is the initial allowance plus the rewards from the incentives provided - some of these incentives are explicit (eg EBSS, CESS and STPIS) but there are underlying incentives as well that are provided by the Rules (such as automatic acceptance of all investment). In theory, the benefits of these incentives should be addressed by the setting of the equity beta, but in practice, the overall conservatism in setting the allowances leads to an over compensation for the NSP. Unless these other sources of compensation are recognised then relying purely on "market data" will lead to an inaccurate assessment of RoE¹³.

Another aspect of modelling that is frequently overlooked is that there is an inherent bias in the market data.

The market data that is available supposedly reflects the outcomes of real investments. But this is not entirely true. In fact the financial market only records

¹² Such investments are commonly referred to as defensive elements of a portfolio

¹³ In this regard it is pertinent to note that many investors expect little return in the form of a dividend but that the bulk of the reward will come from capital growth. This approach reflects assumptions made on totally different set of criteria than are used by the various models for forecasting returns

the investments that were successful - unsuccessful firms cease operation and fall out of the market. The accumulation index which is seen as the surrogate for the market return notionally reinvests the dividends from a firm in its shares. The losses a firm makes before it fails are not recorded as negative dividends and the only impact seen is the reduction in the market value of the shares in a firm.

Additionally the "paper" market is impacted by exogenous impacts of which the most obvious is confidence. Share prices rise when confidence in the economy is high regardless of whether the dividends from firms making real investments might be sustained. Whilst this might give support to a view that the Dividend Growth Model (DGM) can add value in providing a better view of the short term returns of the market as a whole but the DGM does not include the negative dividends of firms that are failing so the market wide DGM will provide an inflated view of the market.

This means that the AER needs to temper its use of modelling and the data that underpins it with the view that the outputs of models of the market are related more to the trading of financial instruments rather the underlying long term returns that are expected from investment in "real" assets.

4.5 Overall assessment of the AER approach

Generally forecasting models look to assessing returns on investment over a shorter time frame than the return expected for long lived assets.

It is recognised that no single model used for predicting future returns on equity has been developed. This is because expectations of return on equity vary between investors, the type of investment and the time over which the expected return is made.

The approach proposed by the AER addresses almost all of the concerns that have been discussed regarding the development of a rate of return on equity, including that of the MEU which has been consistently of the view that the RoE needs to be more stable than that which results from a mechanistic application of modelling.

The residual concern that the MEU has, is that the long term level of RoE experienced over the majority of the time that energy networks have been regulated have averaged about 11%. At this level there has been no concern that the RoE is insufficient for providing significant investment in networks - indeed there has been periods of over investment that have occurred. This implies that the historic RoE has been too high and is therefore not efficient. It has only been in recent times (where the calculated RoE has been as low as 8%) that networks seriously contemplated not investing at such a low RoE.

The outcome of these two items of information implies that the efficient level of RoE is less than 11% but higher than 8%.

The MEU considers that the AER approach is sound, utilises available information in the most effective manner and provides a transparent methodology for developing an outcome.

Most importantly, the last stage of the AER approach (ie assessing the outcome of the SL CAPM against real world expectations and outcomes) is seen as an essential step in setting an appropriate return on equity.

5. Return on debt

The return on debt allowed in a regulatory decision has been one of the most contentious issues of recent regulatory assessments. The matter has been appealed to the Australian Competition Tribunal extensively and outcomes have been consistently increased the benefit of NSPs and been to the considerable detriment of consumers.

In the most poignant example of the very flawed approach to debt, the AER embedded in a decision where the parent (APA group) of a regulated pipeline (owned by APA subsidiary NT Gas) was seen to acquire contemporaneous debt on the Australian bond market at some 200 bp below the allowance for debt provided by the AER in its regulatory decision. Other examples are where the AER has allowed for the provision of debt for government owned networks at rates well below the actual cost of debt imposed on the networks by the related Treasury Corporations.

By allowing greater costs for debt than are actually incurred by regulated firms, the AER has caused harm to consumers from two basic aspects, viz:

- The higher cost of the service provision to consumers than is warranted by the costing fundamentals, and
- The difference between the actual cost of debt and the allowed cost of debt provided an strong incentive to over-invest in the networks, causing harm to both current users of the service but more importantly, to future users of the service which have to pay for assets provided earlier but which were never needed.

The MEU has assessed the new AER approach to setting the cost of debt on the basis that the allowance must reflect the actual costs incurred. If there is a disparity in favour of NSPs, not only will harm be done to consumers in a pricing sense but the incentive programs instituted by the AER to provide closer control on expenditure (ie to maximise the opportunity for expenditure to be efficient) will be made less effective and, in some cases, totally ineffective¹⁴.

The AER has the responsibility to ensure that there is no tangible difference between the allowance for debt provision and the actual costs incurred. Achievement of this outcome will result in improved efficiency - an outcome that is required by the energy laws Objectives.

5.1 The AER approach

The AER proposes to develop its allowance for debt on the following basis:

¹⁴ The MEU has made this point in its response to the Incentives guidelines

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- The return on debt will be set on a rolling seven year basis with equal annual weights.
- The cost of debt will be based on 7 year Australian corporate bonds using a credit rating of BBB+. Bloomberg fair value curves will be used to identify this cost
- The outcomes from this primary source of data for the cost of debt will be tested against other market data.
- The averaging periods for setting each annual update of debt will be set ex ante for a period of 10 or more consecutive days with the start time and number of days set by the NSP unless the AER disagrees with the NSP as to the start date of the averaging period
- The return on debt will be calculated annually and the WACC updated annually to reflect movements in the return on debt
- The long term approach will be based on a 7 year trailing average.
- The transition to the new approach will be based on sequential introduction of seven equal tranches of new debt over a seven year transition period.

5.2 So what is different? Very little

This new approach is quite similar to the current and very flawed approach to setting debt but with three modifications

- The term of the debt will be 7 years rather than the current 10 year term
- The cost of debt will be averaged over a trailing 7 year period
- There will be annual updating of the cost of debt with the new value introduced into the WACC which will also be adjusted annually

In reality there is little difference to what is currently done and what differences there are biases the outcome in favour of NSPs:

- Annual updating process will reduce the risk NSPs incur by having the cost of debt set once for the entire regulatory period
- The AER observes there is little difference between the cost of 7 year bonds and 10 year bonds (on page 109 the AER points out that the difference is 21 bp which is negligible when assessed in terms of the absolute value for debt and the error in identifying the amount)

- A trailing average of debt will be used as this replicates the portfolio of debt terms actually used by those with large debt acquisitions. This approach reduces the risks faced by NSPs as the debt profile will more closely reflect the actual debt profile compared to the "on-the-day" setting currently used.

When considered in this fashion, the changes proposed by the AER for setting the cost of debt are a benefit to NSPs but do nothing to rectify the flaws in the current process that have been identified by consumers and even the Australian Competition Tribunal.

It is small wonder that the NSPs support the changes made by the AER to debt cost setting, with the single objection¹⁵ being to the move from 10 year bonds to 7 year bonds - after all why lose the 20 bp differential?

The AER approach fails to address the fundamental issue that the cost of debt allowed NSPs will remain well in excess of that which is actually incurred by them.

5.3 The difference between government and private ownership

The AER approach does not recognise that the cost of debt acquired by government owned NSPs is significantly lower than the cost of debt they should be allowed. In its explanatory statement the AER comments (page 50):

"Some user groups submitted that a government is able to access lower cost of debt due to its opportunity to access greater diversification of risk than is available to privately owned businesses. It may also be argued that the lower cost of capital is a result of the taxing powers available to the state, which provide reasonably unlimited credit insurance to the government. Klein submits that if taxpayers were compensated for the risk they assume for tax-financed projects, then no capital cost advantage would be conferred upon government finance. The risk premium on government finance would, in principle, be no different to that of private investors."

There is a fatal flaw in the argument put by Klein but accepted by the AER. It is the ability to increase revenue from the general populace (ie certainty that a debt will be repaid.. As Klein comments, it is the ability to tax that allows governments to borrow at high credit ratings and relatively low cost. However where the Klein argument fails is that government risk reflects a conglomerate of the many risks from the variety of uses of the debt the government acquires. In fact much of government debt is used for purposes that do not generate a clear revenue for the government to offset against the debt. For example, the building of roads (other than toll roads) railway stations, hospitals etc do not

¹⁵ See ENA presentation to AER forum on 1 October 2013, slide 14

exhibit a specific revenue which can be related to the risk of the government borrowings. This makes the risk of the debt acquisition problematic in the absence of the ability to tax.

In contrast to most of the uses the government puts its debt to, when lending to the energy networks the government can clearly identify the revenue that the debt will generate and the benefit the government will receive for the provision of the debt. After making these assessments, governments lend to the networks they own at a lower cost of debt than the AER allows.

Implicit in the AER decision to allow a higher cost of debt than governments lend to their NSPs is that government NSPs have a higher risk than the risks for other aspects of government spending. This is compounded by the conclusion that the AER is better at assessing the cost/risk trade off for government owned NSPs than do the Treasury Corporations providing the actual debt funding.

Klein makes the point that it is the ability to tax that results in lower cost of debt to governments. In reality all NSPs have the same powers as governments in this regard - any user of the energy network is required to pay for its use at the determined price. Whilst not exactly the same as the ability to tax, when considering that electricity is an essential service, the requirement to pay for the service at the set price is closer to the ability to tax than the purchase of non-essential services.

There is no argument that the cost of debt incurred by government owned NSPs is actually lower than the rate at which the AER allows these NSPs - this is clearly shown in the NSP annual reports. The question then becomes why does the AER persist in not formally recognising this disparity? The AER comments that (page 50):

"Overall, we consider that, consistent with financing principles, the rate of return should be based on the non-diversifiable or systematic risks of the assets (i.e. regulated energy business) and not on the overall risk of the parent (as discussed above)."

This then raises a key point that is not discussed. As some 80% of electricity network assets are government owned and acquire debt from the government Treasury Corporations at rates well below the cost of debt sourced by private firms on the bond markets, it is clear that the majority of debt required for electricity assets is provided at State Treasury rates and the rating of this debt is consistent with the provision of debt to an entity which has an equivalent ability to tax through its requirement to pay whatever is determined for an essential service.

When looked at this way, the AER is incorrect in setting the cost of debt based on acquisition of corporate bonds by entities that do not have the equivalent ability to tax but must operate in the competitive market. The reliance on a credit rating is distracting from the reality of what actual costs of debt for

regulated energy networks really are.

This point is reinforced by the observations of Chairmont and Oakvale in their reports to the AER. Both clearly state that credit rating is not the main driver of the cost to acquire debt and that many other influences must be considered. They highlight that the industry the borrower operates in is a critical driver. In the case of regulated monopoly energy networks, the ability to effectively "tax" through being provider of an essential service is undoubted and energy users should be reimbursed (as Klein asserts) for the risk they face in providing this certainty to the lenders. This can only be done by setting the cost of debt at the levels reflecting the security of the industry the borrower operates in.

The clear conclusion that should be drawn from the assertion of Klein and the observations of Chairmont and Oakvale, is that the cost of debt set by the State Treasury Corporations is probably closer to the real cost/risk balance for regulated energy networks than using the cost of bonds that almost entirely apply to an entity operating in the competitive market.

5.4 "Bonds ain't bonds"

The AER has concluded that 7 year Australian corporate bonds for borrowers rated at BBB+ provide the correct benchmark for the cost of debt for regulated monopoly energy networks. The commentary in section 5.3 above provides a different view - that the cost of debt charged by Treasury Corporations is probably a better surrogate for the cost of debt sought by monopolies providing an essential service.

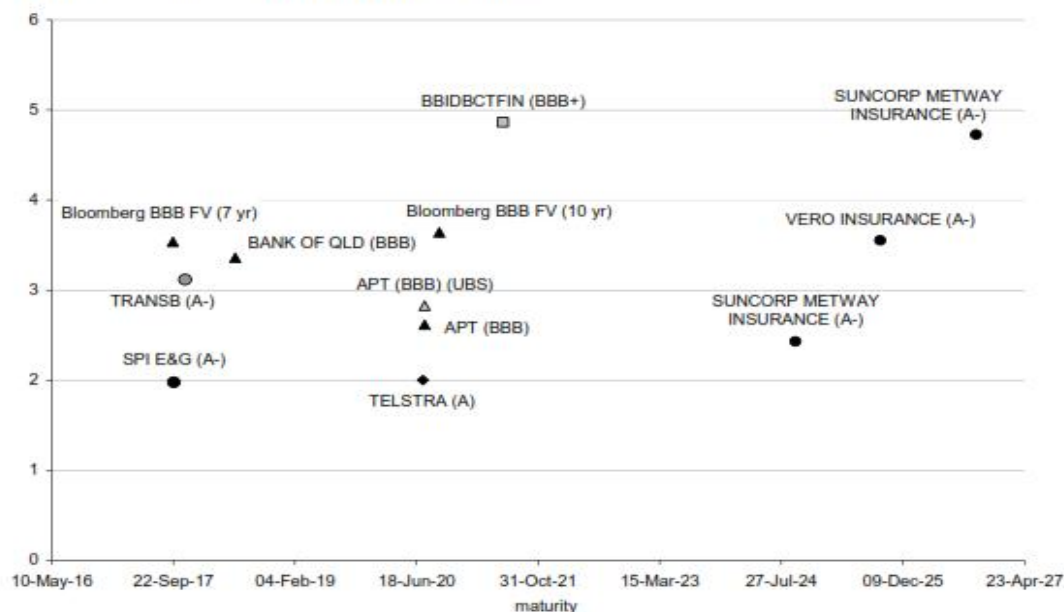
In its Final Decision on the Victorian electricity distribution network service providers Distribution determination 2011–2015 issued in October 2010, the AER carried out considerable investigation into the cost of debt incurred by regulated energy network service providers, in an attempt to identify why the coupon rate for the APT bond issue in 2010 was significantly lower than the Bloomberg Fair Value estimates for similarly rated bonds.

In that process, the AER also included details of an SPI bond (SPI is a subsidiary of SP AusNet which was one of the NSPs included in the review) which also exhibited that the price for the long dated bonds it had issued were also well below the BFV estimates¹⁶.

The following figure was included in the AER final decision (page 508).

¹⁶ The same figure also shows that another regulated network service provider (Telstra) also had issued bonds with a cost well below those for other bonds of similar credit rating

Figure 11.5 Spreads on long dated bonds



Source: Bloomberg, UBS, AER analysis.

What the figure shows is that there is considerable variation between the yields on the bonds (even though they are of similar rating ranging between A to BBB) and that the BFVs are consistently higher than the yields of bonds issued by regulated energy networks. What is also apparent is that there is little (if any) consistency in price between bonds of the same credit rating. The AER did not attempt in its decision to address this very apparent inconsistency.

However, to assist them in assessing the cost of debt faced by NSPs, the AER commissioned Oakvale Capital (reporting to the AER February 2011) and Chairmont Consulting (reporting to the AER in February 2012). Both consultants advise that credit rating is but one element considered by lenders when setting the cost of debt they will provide - they cite there are many other aspects that determine the cost of debt provided to a firm. Of these both consultants state unequivocally that the industry the firm operates in is the critical determining factor in setting the cost of the bond, and not the credit rating.

Chairmont advises that there are three principles that determine the cost of debt which reinforces the importance of the industry of the borrower

- "Principle 1: The industry and entity specific characteristics of the issuer should be reflected in the industry and entity characteristics of the proxy;
- Principle 2: Debt structure and seniority and other key features of the debt being benchmarked should be reflected in the key features of the debt proxy; and

Principle 3: The proxy bonds chosen should have risks perceived similarly in capital markets to the risks to the debt being benchmarked. The benchmarking process should seek to deliver results consistent with one undertaken by market practitioners in capital markets reflecting their perception of risk relating to the potential proxy bonds."

These principle do not refer at all to credit rating other than in passing - by reference to debt structure and seniority of the debt.

The market evidence supports the three principles and explains why debt provided to different firms but with the same credit rating exhibits such a large variation in the cost of the debt. The AER has made no attempt to address this clearly enunciated concern of Chairmont.

Chairmont goes on to state (page 8)

"A better outcome would be achieved by the inclusion of other securities and entities in the process to further decrease the impact of BFVC and to broaden the number of proxies used. In other words, the constituent sample in the BFVC proxy group is inappropriate and inconsistent with best practice benchmarking principles. In my opinion, both fixed rate and floating rate bonds from infrastructure and/or regulated entities and industries should be included in the benchmarking process. For instance, fixed and floating rate debt issued by the Sydney, Brisbane and [the New Terminal Financing bond] Adelaide Airports are good proxies on term, structure and industry grounds. These characteristics of the proxies make them a high value proxy group. In the case of these examples, they are effective or near monopolies relying on patronage and usage that is predictable and stable, fixed infrastructure similar to pipelines, and subject to regulation. The process is about employing good principles and judgement on the available data."

Chairmont provides a summary of its key findings on page 17. Of these most important are:

- "The current [AER] benchmarking process is flawed as it works on a principle that predominantly uses ratings to find proxies. If rating is the only thing that qualifies a proxy, then the benchmarking process is inappropriate;
- The industry of the debt issuer proxy is of paramount importance in benchmarking and banking is not a similar enough industry to infrastructure to qualify bank debt as an appropriate proxy for this process;"

Despite the evidence to the contrary, the AER proposes to continue the use of the Bloomberg Fair Values (BFVs) as the basis for setting the cost of debt. To set the cost of 7 year BBB+ rated debt, the AER will have to carry out

interpolation from the Bloomberg values for the 7 year debt curves. As the derivation of the BFVs is unknown (Bloomberg advise that the development of the curves is proprietary) there is no way that the BFVs can be deconstructed to provide evidence of their appropriateness to the industry to which the outcome is to be applied. What does seem to be a factor is that Bloomberg only uses the size of the bonds and their related credit rating in developing the Fair Values. This means that the BFVs make no attempt to recognise the industry of the issuer of the bonds when assessing its outputs.

What is known is that the BFVs have consistently provided an overstatement of the observed costs for bonds that are incurred by regulated energy monopolies. For the AER to ignore this very salient empirical observation highlights the fundamental error of the AER approach to the cost of debt

Despite advice to the contrary by its own consultants Chairmont and Oakvale, the AER, by using the BFVs, effectively persists in assuming all bonds rated to the same credit rating are equivalent and all should be used to provide the benchmark.

The obvious conclusion from the Chairmont and Oakvale advice is that only bonds that are equivalent to the benchmark entity should be used. The AER has determined that the benchmark entity is a "pure play energy network" so the advice from Chairmont and Oakvale can be reinterpreted to be that only "pure play energy network" bonds should be used for the benchmark.

By continuing to use the BFVs, the AER has decided to not only ignore the advice of its own consultants, but to actively reject its own previous attempts to address what the AER itself had identified as delivering demonstrably wrong outcomes for the cost of debt.

The MEU agrees with Chairmont and Oakvale that the AER should select a cohort of bonds that are comparable to those sourced by firms similar to the firms that are to be regulated as this will provide a more accurate benchmark for the cost of debt sourced by NSPs.

5.5 Term of debt,

The AER has determined that it will set the cost of debt based on seven year corporate bonds rated at BBB+. The AER has pointed out in its explanatory statement that the difference in cost of debt between 10 year bonds and 7 year bonds is about 20 basis points, which would have minor impact on the overall allowance for the cost of debt. Certainly this small reduction will not address the readily observed massive over compensation provided in the past.

This decision to use 7 year as the average term of debt is not supported by the evidence. For example, in its final decision on Western Power, the ERA of WA concluded that 7 year average debt term is probably too long and concluded

that a five year debt term was appropriate. The ERA¹⁷ observes that 52.5% of debt for privately owned NSPs is less than 5 year term¹⁸. The ERA provided Table 160 in its Final Decision which shows the break down of debt term for privately owned networks. This shows that the weighted average debt term is close to 5 years.

Table 160 Debt Profiles for Privately Owned Energy Network Businesses

Business	Amount of Debt by Average Term			Total Amount (\$ millions)
	Less than 1 year	1 to 5 years	More than 5 years	
APA Group	250	800	1,368	2,418
ETSA Utilities, SA	495	1,375	2,489	4,359
Ervestra	408	905	1,049	2,362
SP Ausnet	1,403	4,042	3,902	9,347
CitiPower and Powercor, VIC	906	2,212	2,769	5,887
Total	3,462	9,334	11,577	24,373
Per cent of total (%)	14.20	38.30	47.50	100.00

Source: 2010 Annual Reports and the Authority's analysis.

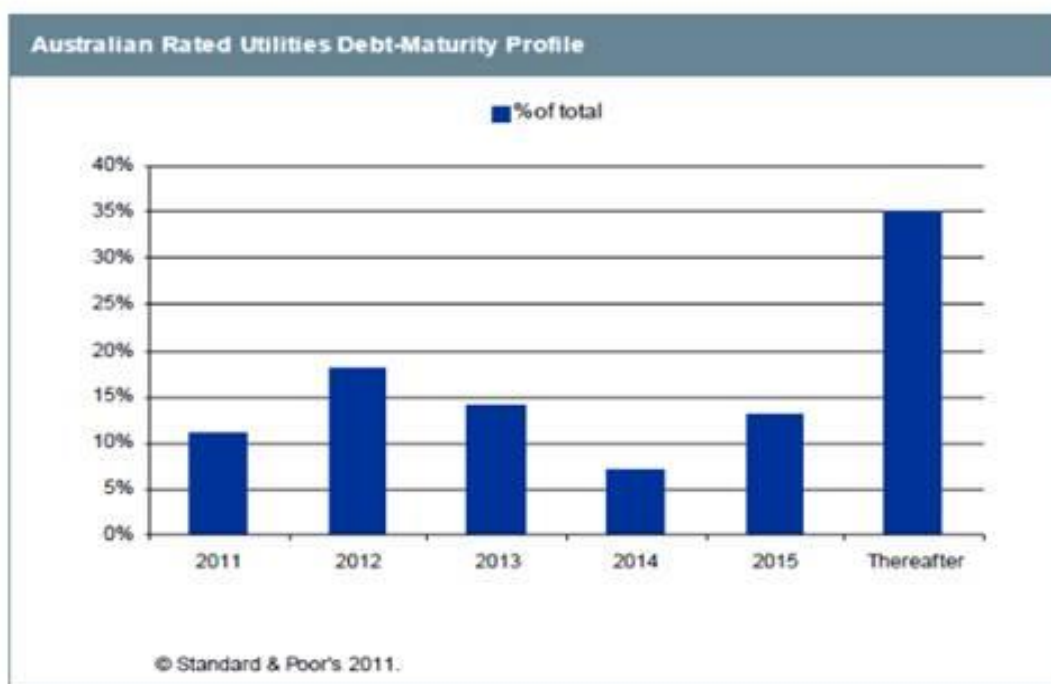
In the same decision on Western Power the ERA also provided a chart (ERA figure 12) showing S&P data of debt to maturity profiles of Australian rated utilities¹⁹ which indicates that the debt to maturity averages well below 5 years supporting the above observation that debt based on the term at issuance is about 5 years

¹⁷ ERA Final Decision on Western Power Network 5 September 2012

¹⁸ The ERA also comments (page 346) that debt includes bank loans, debentures, commercial papers, syndicated bank debts, medium term notes and (both secured and unsecured) senior notes. Liquidity management policies ensure that the energy businesses have diversified portfolios, in terms of maturity and sources, which reduces reliance on any one source of funding in any particular year

¹⁹ Whilst Figure 12 presents the findings for the most recent year (2011), the ERA notes that the same conclusion is reached by analysing data from previous years.

Figure 12 Australian Rated Utilities Debt Maturity Profile



The ERA concluded that this data supported its view that the debt profile sufficiently matched the 5 year CGS they use as the RFR that it should be used for the Western Power decision.

These observations are supported by a report to the AER leading to the final decision on WACC in 2009 where Deloitte²⁰ provided the AER with the following data²¹ which show an even stronger bias than the work of ERA supporting a 5 year average term for debt. The following table (table 8) was provided by Deloitte to the AER in its report.

²⁰ Deloitte: Report to AER "Refinancing, Debt Markets and Liquidity" 12November2008

²¹ The ERA also comment that: the sample it used had the same sample of businesses that Deloitte used in the advice for the AER on "Refinancing, Debt Markets and Liquidity" in 2008

Table 8. Private Owned Energy Network Companies

Distribution	Ownership	Amount (\$M)	Not disclosed#	Average Term		
				<1 Year	1 to 5 Years	> 5 Years
CitiPower & Powercor	Non Gov't	4,604		1,013	1,763	1,828
ETSA Utilities	Non Gov't	4,098		331	1,912	1,855
SP Ausnet	Non Gov't	3,671		537	2,051	1,083
Envestra	Non Gov't	3,661		406	967	2,288
APA Group^	Non Gov't	4,297		364	2,175	1,758
Summary		20,331		2,651	8,868	8,812
% share		100%		13%	43%	44%

^ Now parent company of GasNet

Floating rate instruments, tenor not disclosed.

Source: 2007 Annual reports

In its examination of the term for debt in the Western Power decision, the ERA included a chart for government owned NSPs which showed 44% of debt was less than 5 years with 56% of debt longer than 5 years (table 161 in the Western Power final decision). The Deloitte report to the AER in 2008 showed for government owned NSPs a debt profile of 76% of less than 5 year and only 20% greater than 5 years (the balancing 4% was for floating rate instruments with no tenor disclosed).

The variation for government owned NSP debt tenor needs to be treated with some caution because the debt is provided by the associated Treasury Corporations and it would be they who would determine the tenor of the debt for reasons other than the needs of the NSPs. Despite that, the clear indication is that the government owned NSPs have a debt profile closer to 5 years than longer.

In its report to the AER Deloitte²² commented that:

- The average maturity of corporate debt facilities has shortened ,to around three years compared to 5 plus years previously .In the past,5 and 10 year bonds were widely issued but in the current market, the little volume that is being issued is primarily 3 year bank debt with very little liquidity in 5 year facilities (page 5).
- Privately owned businesses use debt with a range of maturities ,with terms varying both shorter and longer than the 10 year benchmark. This

²² ibid

is consistent with AER issues paper. It is expected that average maturities will drop rapidly given the current state of markets (page 5)

- Bank loans have become increasingly attractive because they offer;
 - a) potentially the only available market and
 - b) significantly lower rates than bonds, despite a sharp increase since the credit crisis as banks themselves face higher funding costs .Bank loans offer greater certainty based on relationships, but currently have limited terms of typically 3 years (page 11)

This analysis provides much stronger evidence that 5 year average debt term is closer to reality than that assumed by the AER.

The availability of data for 5 year bonds is much greater than that for longer dated bonds as the market for bonds tends to reflect shorter terms than the 10 year bonds used in the past. This view is supported by the fact that BFVCs use 7 years as the longest term they provide.

One of the major issues faced by the AER in identifying a cost of debt has been the paucity appropriate bonds to form a benchmark. Reducing the term of the debt profile will allow more bond data to be used in setting the benchmark

The strong recommendation from consumers has been that debt based on 5 year bonds will probably more than provide sufficient funds for the cost of debt incurred and this same view has been reached by ERA which is reviewing the cost of capital for its regulatory requirements. In developing its view that ERA identified that the tenor for debt provided by NSPs in recent times has shown a considerably shorter term than that assumed by the AER.

5.6 Rating and source of data

The AER has also decided that BBB+ credit rating is applicable for regulated energy networks. Due to the lack of such rated bonds, there is not sufficient data available to identify a clear trend for BBB+ rated bonds so the AER intends to interpolate a BBB+ rating using data for higher and lower rated bonds. This will introduce potential for further debate due to the process to be used, the errors likely to result and the reduction in transparency and replicability.

There is no doubt that there is a limited market for corporate bonds in Australia - the fact that many firms seek funding from other sources (including the deeper bond markets overseas) indicates that the AER is incorrect in assuming that all debt could be sourced from the Australian bond market and that this provides an accurate forecast of debt. The ACCC Regulatory Development Branch advises in its recent paper on the provision of debt²³ (page 53):

²³ ACCC, Estimating the cost of debt, a possible way forward, April 2013

“However it should be explicitly recognised in decisions that such a method [using just corporate bonds] over time will result in a conservative cost of debt estimate favouring the regulated business.”

The AER has elected to ignore this advise, presumably on the basis that using corporate bonds is transparent and easy to apply (especially if the BFVCs are used), even though it results in consumers paying more than is required. The AER does not have the mandate to impose additional costs on consumers just because the approach is transparent and easy - the AER is required to ensure that the allowances they provide are efficient as efficiency is what is required by the energy Objectives.

What the AER proposes is to use a term, rating and source of debt which will provide an allowance for the cost of debt which is little different to the demonstrably excessive allowance the AER has provided under the previous and now discredited approach.

What the AER has failed to do is to assess whether its proposed framework would have returned debt costs which have been replicated by the actual outcomes achieved by energy networks in recent times. It has merely identified specific inputs which it considers reflect the structure of debt obtained by energy networks but has failed to test these to confirm that when applied, they replicate the actual outcomes observed. In contrast, the AER has devoted considerable effort to examine the cost of equity in terms of inputs and then assessed the outcomes of the various models that might be used.

The MEU considers that the AER should identify a cohort of bonds reflecting a range of credit ratings and tenors applying to firms of a similar nature to energy networks and from these build a model which when applied with actual inputs for industry, term and credit rating delivers outcomes that are similar to what has been observably achieved by the network firms.

The lack of any assessment of outcomes has probably led the AER to incorrect conclusions and a continuation of a flawed methodology which runs strongly counter to the recommendations of its consultants.

5.7 The trailing average approach and averaging period

The only change of significance to the approach to setting the cost of debt made by the AER in the new guideline is the decision to use a trailing average for the cost of debt with debt retiring in equal tranches.

This approach reflects the actuality that few firms (if any) acquire all of their debt at a single point in time and sensibly recognise that the debt held will mature at different times as this results in overall lower risk to the firm. Although each firm will have different amounts of debt maturing at different times and from different sources the AER has assumed that the same amount

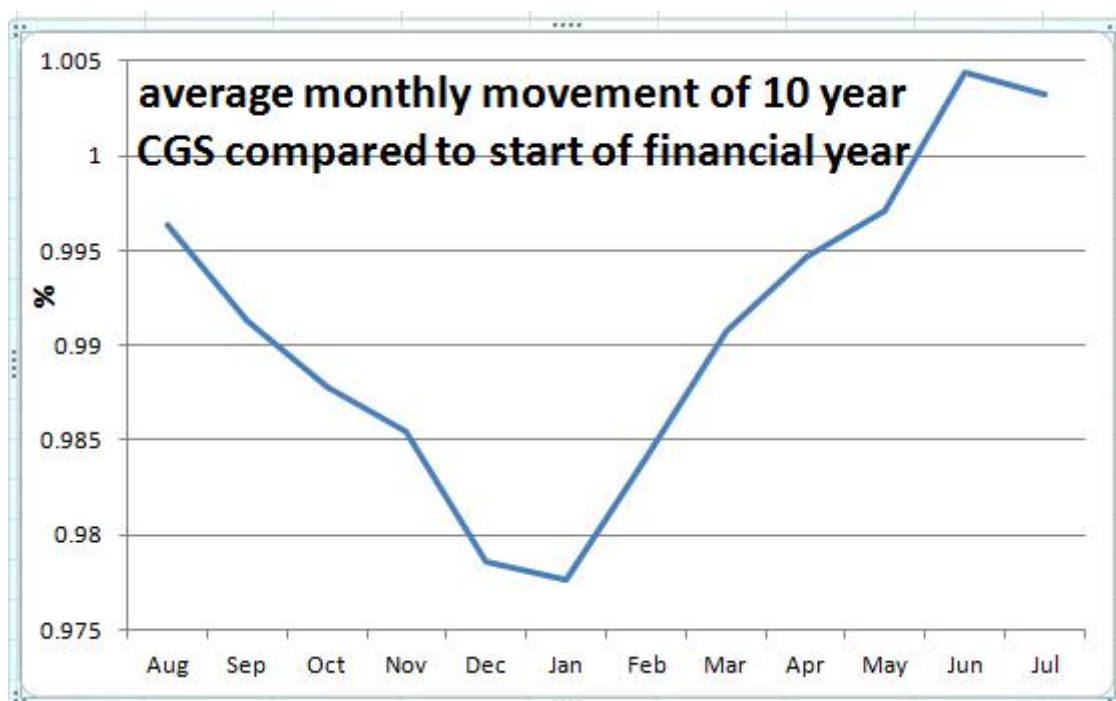
of debt will mature each year. This is pragmatic as there is likely to be considerable variation over time and between NSPs as to the proportion of debt that is to be renewed each year.

Unfortunately, the AER then attempts to set a trailing average approach on the assumption that each tranche of debt will be provided at a unique point in each year and averaged over a short window of time. This is inconsistent with the assumption of the trailing average approach.

Historically, the AER has assumed that all debt for the regulatory period will be acquired a short time before the commencement of the regulatory period (the on-the-day approach). Under the new approach, an NSP is to be given the ability to set both when an averaging period is to occur and what the duration of the averaging period will be. The AER requires the NSP to fix these two variables for the regulatory period as part of its regulatory application; in theory, the AER assumes, this will limit the ability of the NSP to "game" the regulator as the NSP will not know what movements in debt costs will occur each year throughout the regulatory period.

The assumption made by the AER is that there is no difference over a year where interest rates are likely to be such that the NSP can gain a benefit in the setting of the averaging periods.

This assumption is not supported by evidence. In fact there is a real inter-relation between interest rates and when they occur within a year. The following chart tracks the long term average monthly changes of 10 year government bonds since 1970.



Source: RBA data

This shows that interest rates are likely to fall in the third and fourth quarters of a year (with the largest falls in September and December) with interest rates likely to rise in the first and second quarters of the year (with the largest rises occurring in February, March and June. Whilst there are variations of these trends between years, there is a clear and unequivocal bias that occurs and would be used by NSPs to maximise their benefit.

To overcome this bias, the AER could determine the averaging periods (but this is then subject to the same bias) or require that the averaging period should be over the entire year.

The MEU considers that averaging over an entire year eliminates the impact of the monthly variation and avoids the need to determine what is an appropriate period over which to average. This whole of year averaging is used by other regulators to avoid the observable monthly bias and controversy regarding the lengths of periods for averaging.

5.8 Testing the outcomes

As noted in sections 5.4 and 5.5, the AER is intending to use the same credit rating and source of data that it has used in previous determinations. It has shortened the tenor of the debt from 10 years to 7 years and will apply a trailing average approach.

The AER has noted that the difference in the cost of debt by reducing the tenor of the debt is marginal and seems to be of the view that implementing the trailing average approach will cause the outcome to better reflect the actual costs of debt observed in the past. This is indeed a courageous assumption which can be quickly discounted.

In an environment where there is no change in the cost of debt over time, the trailing average approach will provide the same cost of debt as is identified for a single year. Already the AER has identified that the cost of debt allowance that its use of 10 year, BBB+ rated debt as measured by the BFVs overstates by a considerable amount (at least 200 basis points) the actual cost of bonds that regulated networks have issued. Reducing the tenor to 7 years has a marginal impact on the cost of debt allowance (the AER has identified this to be about 20 bp) so the outcome of the AER approach will be a continuation of the over compensating process the AER has itself determined delivers excessive outcomes.

That this occurs can be tested when examining individual decisions, viz:

- The AER has previously identified that the BBB+ BFV delivers an outcome that has been provided an allowance for the cost of debt that exceeds the cost actually incurred by regulated energy networks. As a result the AER has at times attempted to moderate the influence of the BFVs by introducing other observed prices for debt, such as the APA

bond issue.

- Experts have identified that "bonds ain't bonds" and that the cost of bonds varies significantly across different industries even though they might have the same credit rating
- Examination of the tenors of debt indicate that debt terms are shorter than 7 years and as a result the ERA has already settled on a 5 year tenor for debt as being more reflective of the tenor for all debt acquired by NSPs
- The ACCC has identified that exclusive use of Australian corporate bonds to set the cost of debt will be conservative because regulated energy networks use other sources of debt which have lower costs than the cost of corporate bonds

The AER has in previous decisions identified that its standard approach to setting the allowance for the cost of debt has delivered outcomes that are too high but has in this decision effectively retained individual inputs that delivered the outcomes that the AER observed were too high.

This is totally illogical.

By using the same inputs to debt as previously, consumers will still be required to overcompensate NSPs for providing debt.

5.9 Annual updating

An automatic outcome of assessing the cost of debt on a trailing average basis is that there is a need to reflect the changes in the cost of debt seen. The AER has determined that such movements in the cost of debt should be assessed on a yearly basis and this makes sense as making assessments on a shorter time scale would introduce unnecessary volatility.

It is important to note that the annual updating reduces risk to NSPs considerably and provides a much closer match to the actual cost of debt. Having more accurate expenditure allowances do not increase risk and probably reduce it as the outcome should address potential under allowances.

With this in mind, it is important to note that with a less risky approach, this does not constitute an need to increase the return on equity.

If the change in the annual cost of debt is to be recognised, then the WACC needs to be changed annually and applied to the regulated revenue.

The MEU agrees with the AER approach on this aspect.

5.10 To transition or not to transition

The AER has advised it is concerned that if there was a change to the new approach, this might cause some NSPs harm and lead to consumers paying more than is necessary for the cost of debt. What the AER fails to recognise (or quantify) is that the current excessive returns on debt provided under the current discredited approach are already grossly overstated and that with the only change of significance being the change to a trailing average whether the change will indeed cause much harm at all.

The MEU considers this apparent need to implement a transition program does not reflect the actuality of what is obviously occurring across the regulated NSPs now. The trailing average approach still sets a new cost of debt at the start of the regulatory period and the only difference is that the cost of debt to be set in subsequent years will vary a little each year thereafter. This is no different to what NSPs are seeing (and doing) now so the trailing average approach will effectively reduce risk for NSPs as it will reduce the differential between what the initial allowance was at the start of the period and what is seen by the NSPs each year thereafter.

The AER has expressed a concern that implementing a seven year trailing average approach will introduce the impact of high costs for debt that occurred during the Global Financial Crisis and for periods thereafter. This commentary has been stated only on a qualitative basis and not quantitative analysis undertaken.

The MEU is of the view that with the AER setting the average tenor of debt at 7 years, the concern about the need for a transition has more legitimacy than if the tenor is set to 5 years.

Overall, if the AER persists with the use of the BFVs to set the cost of debt, then there will be greater risk of consumers overpaying for debt than if a properly constructed representative cohort of bond issuance is used and this will be exacerbated if a transition is imposed.

If the AER follows the recommendations of the MEU that 5 year bonds from a representative cohort is used, there will be no need for a transition process.

5.11 The overall assessment on debt

The AER has introduced one significant change to the previous and now discredited approach to the setting of the cost of debt allowance - that a portion of the debt be assumed to be renewed each year. The allowance for debt will then be updated each year and a new WACC calculated based on the updated cost of debt.

There are significant benefits for NSPs by taking this approach in that the debt profile more closely reflects the way each NSP actually acquires debt and with

the annual updating reduces the risk that the cost of debt set "on-the-day" will diverge from the actual cost of debt incurred. This reduces the risks to an NSP.

At the same time, the input parameters for setting the cost of debt have changed little from the inputs used in the past and which have resulted in consumers paying a considerable premium for the provision of debt.

This means that NSPs have reduced their risk but consumers gain little from the new approach compared to the previous approach. Whilst there is an increase in efficiency due to lower risks, all of this benefit accrues to NSPs and little of it will benefit consumers. In contrast, there has been little change for consumers who will still be required to over compensate NSPs for the provision of debt

The main failure of the AER has been in not testing the assumptions they have made. This could have been readily achieved by calculating the cost of debt using the new approach and testing the outcomes against the actual costs of debt incurred by NSPs or their parents.

The MEU is strongly of the view that when the AER tests its new approach against observed outcomes, they will see that either their assumptions are legitimate or that (as the MEU considers will be the case) the new approach will continue to provide the NSPs with a higher cost of debt allowance than is warranted. Either way, testing will provide consumers with a clear understanding of the impact of the changes.

The MEU considers that the AER should change its approach to setting the cost of debt to reflect the following:

- The average tenor for debt should be 5 years as this more closely reflects the evidence from the market than the 7 year term identified by the AER
- To attempt to identify a debt cost for BBB+ rated network is a fraught exercise as there is a paucity of bonds to draw a conclusion from, and the AER will have to manipulate data from other sources to interpolate a cost for the specific rating. The MEU suggested that all investment rated bonds be used
- The process for using Bloomberg Fair Values for bonds has been discredited in the past (including by the AER) and its consultants have also advised that such an approach will not reflect the effect that industry and other criteria have a greater impact on the cost of debt than the credit rating. The MEU recommends that the AER use a cohort of similar bonds with a bias towards those with a similar basis (ie firms operating as regulated monopoly infrastructure providers) to replicate those raised by energy NSPs and use average daily rates across each of year of the 5 year term to develop the annual cost of debt

- The averaging period for all bonds in the cohort used as the benchmark should be the full year rather than selecting specific times and durations at the election of NSPs
- Based on the changes the MEU recommends, there would be no need for a transition period
- The return on debt should be updated annually and a revised WACC developed based on changes to the cost of debt calculated be used to vary the allowed revenue

7. Imputation credits

Historically, regulators in Australia have allowed gamma (the benefit from imputation) to be 0.5. The Australian Competition Tribunal imposed on the AER a requirement to set gamma at 0.25 on the basis of an appeal which used a single consultant's report as the basis for the appeal. Using such a low value for gamma has imposed on consumers a significant impost which is probably not warranted, and one which would seem to defeat the purpose of imputation.

Firms generally fully frank their dividends and a decision not to provide fully franked dividends is made uniquely by the firm paying the tax. Further, if a shareholder decides not to utilise its entitlement this is a decision for the shareholder. If a shareholder is not a tax payer in Australia, it has already made the decision that it will not receive any benefit from imputation in relation to any investment it makes. When making the investment it knowingly recognises that it would not receive the benefit of imputation.

When considered on this basis, the foreign investor should not receive a benefit in terms of the higher dividend it will receive should the AER allow for a higher revenue to offset the low value of imputation assumed by the AER.. Why a foreign investor in a regulated network should indirectly receive through a higher dividend the benefit of franking when foreign investors in unregulated firms get no benefit has not been explained.

It is not an issue for the regulator to "second guess" whether fully franked dividends will be provided by a firm or if a shareholder takes up the benefit.

The AER draft decision has been to return to the long term value used of 0.5 on the basis that some investors in the market do not receive a benefit. What has not been examined why this market wide assessment should provide investors in regulated networks any benefit at all.

The MEU considers that the AER change to a gamma of 0.5 is a move in the right direction, it still does not accept that the AER should provide any additional revenue to offset a reduced benefit that might (or not) apply to regulated networks.