Major Energy Users Inc.

Australian Energy Regulator

Better Regulation

Rate of Return Guidelines

Comments on the Issues Paper

Submission by

The Major Energy Users Inc

February 2013

Assistance in preparing this submission by the Major Energy Users Inc (MEU) was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

This project was part funded by the Consumer Advocacy Panel (www.advocacypanel.com.au) as part of its grants process for consumer advocacy and research projects for the benefit of consumers of electricity and natural gas.

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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 AER has made a good start on the issues. The statement of a range of principles is a very good basis in developing the guideline.

The MEU, however, proposes very detail commentary on the AER's proposed approach, including on aspects (such as the need to treat debt and equity separately) which will have a significant impact on whether the rate of return arrived at is efficient and in the long term interests of consumers.

The MEU considers that whatever the guideline proposes it must, at the most basic level, deliver an outcome that is both efficient and in the long term interests of consumers.

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.

1.1 About the MEU

The Major Energy Users Inc (MEU) represents some 20 large energy using companies across the NEM and in Western Australia and the Northern Territory. Member companies are drawn from the following industries:

- Iron and steel
- Cement
- Paper, pulp and cardboard
- Processed minerals
- Fertilizers and mining explosives
- Tourism and accommodation
- Mining

MEU members have a major presence in regional centres throughout Australia, e.g. Western Sydney, Newcastle, Gladstone, Port Kembla, Mount Gambier, Whyalla, Port Pirie, Westernport, Geelong, Kwinana and Darwin.

The articles of association of the MEU require it to focus on the cost, quality, reliability and sustainability of energy supplies essential for the continuing operations of the members who have invested $ billions to establish and maintain their facilities.

1.2 The source of the MEU commentary

The MEU has reviewed the Issues Paper released by the AER and has addressed the various aspects based on feedback from its members which are all substantial corporations and operate in competitive markets.

The MEU members operate in markets which are highly capital intensive and therefore their operational experiences are of a similar nature to those of the energy network businesses. Using the feedback from its members, the MEU is therefore competent to provide input into the various aspects addressing the build up of costs that the AER is required to provide when developing the regulatory allowances for regulated energy network service providers.

MEU members all operate with financing from debt and equity sources (sought in the most efficient manner as and when required), price their products so that costs are recovered yet remain competitive with others making similar products,

maintain their assets so they provide the necessary uptime to enable them to stay in the market and invest to replace non-performing assets and to manage growth in their markets. As these are the same issues faced by regulated networks, the MEU members are able to provide first hand observations to the AER about the various elements of the cost structures that regulated networks operate with.

The MEU members all recognise that the network services provided are essential to their long term viability, just as are the many other providers of inputs into each member's operations.

1.3 Some clarifying realities

In order to provide the best input to the AER development of the guidelines, the MEU sought advice from its members regarding the way they address the issue of rate of return. They provided the following information:

- Debt is a cost to the firm. The fact that corporate tax law recognises that tax is not applied to the costs incurred in borrowing funds supports this view.
- The costs for debt are based on the risks assessed by the lender and reflect the likelihood of repayment of the debt and the likelihood the borrower will be able to make its interest payments on time (coverage). This means that the cost of debt is less related to the operations of the borrower than is the cost of equity.
- When seeking equity funds, investors in the firm look at the potential for receiving a dividend commensurate with the risks faced by the firm and the potential for capital gain. Investors tend to have a portfolio approach to their investments and this is where they look at the cash flows, balancing at the first level defensive stocks (certain cashflow and less risk requiring lower reward) and aggressive stocks (uncertain cashflow and higher risk having higher rewards). To a significant extent, this separation is driven more by industry type.
- Once an investment is made, the cost is "sunk" and therefore it is not subject so much to cost of its capital requirement, but more to its return on equity. The investment itself is expected to cover the cost of the debt it imposes on the firm.
- In relation to new investments, the costs (including the cost of the amount of debt needed) involved in the new investment have to be exceeded by the expected revenue from the investment. The firm then looks at the surplus of the revenue less costs to assess whether the investment is sound. This is essentially the Internal Rate of Return (IRR) calculation which, again, effectively addresses the return on equity[1] as

[1] Another tool used by firms is the pay back period. This is where the time frame for an investment is calculated from the cost of the investment equals the revenue.

debt is treated as a cost in the IRR calculation. An IRR calculation has to deliver an outcome which exceeds the firm's return on equity to accommodate the risk that the revenue is lower than expected or that the costs are higher than forecast[2].

- In assessing past investments, the firm examines the costs involved (including the cost of debt) and if the costs are higher than the revenue, will look to writing down the value of the asset and accepting the value of the write down as a loss to the profit. Again this approach impacts the return on equity rather than the cost of debt[3].

Whilst firms have a concept of what the return on equity needs to be to ensure that investors in a firm will continue to support its activities but ultimately, whereas the return on equity is an outworking of the performance of the firm over a period of time. Although return on assets is an indication of the performance of a firm, it is ultimately the return to investors in terms of the dividend on each share and share price growth that is the prime determinant of how a firm is assessed by investors.

This advice from members clearly implies that there is a massive difference between how debt is treated by firms and how equity is treated. Because of this the MEU considers that the AER guidelines need to reflect this different treatment.

1.4 The basis of the MEU approach

In developing its observations and conclusions about the issues raised by the AER, the MEU has started its approach from first principles.

These are:

- All corporations are required to act in the interests of their shareholders. All corporations must operate under basic business fundamentals to ensure they meet both their commercial and statutory requirements regardless of the market(s) in which they operate. At its most basic, they operate to maximise the profit they make for their shareholders. The financial "rules" they operate with to achieve this outcome are the same regardless of the market they operate within.

  This means that the financial approaches used by every firm are essentially the same, and the AER can access this larger pool of

[2] This is not an issue for regulated energy networks as the rules allow for all pre-approved investments to be rolled into the asset base and state that there is no ex post optimisation of the asset base.
[3] Lenders do not accept write downs of their loans.

information in order to assist it in its development of the funding required by a regulated firm.

- Network businesses are only regulated because they are natural monopolies in the markets in which they operate. Despite being monopolies they must still operate to meet the business imperative[4] and within basic business fundamentals. This is an important aspect because it means that the regulatory review and reset process should recognise that regulated firms operate under conventional business practices.

- Economic regulation is about providing the firm with sufficient revenue so that it can deliver the services in the most efficient manner and that the rewards from doing so are sufficient that it continues to invest efficiently to continue to do so. The building block is one approach to providing the "bucket of money" determined by the regulator in response to applications by the regulated firm and is deemed to be adequate to provide the service. It is the sum of the total allowance that is critical rather than the development of any of the individual elements of the building block. Once the "bucket of money" has been set, the regulated firm has total freedom to use those funds in anyway they consider will allow them to meet their business obligations.

- Markets do change over time and therefore there is a need to adjust cost inputs to ensure that:
    - The service provider can continue operating over the long term
    - Consumers are not paying more than is necessary

  This need to review prices and cost inputs is addressed by allowing regulatory reviews to occur regularly. In particular, this regular review process allows the regulator to ensure that the allowances made are still sufficient for the needs of the regulated firm, thereby limiting its risks.

- Incentive regulation (which the AER is required to apply) is about providing a regulated firm with the scope to implement better (more efficient) ways of providing the service. Over time the benefits of these better ways are expected to flow through to consumers. Historically, this has applied to opex but it can apply to other elements such as capex and the RoR (especially in terms of gearing and the cost of debt)

- In a competitive market, competition ensures that each supplier into the market is operating efficiently. In a regulated market, the regulator only allows the regulated firm certainty in its recovery of its efficient costs. In

[4] This is that firms must make a profit

this regard, the second reading speech by the Minister when introducing the new National Electricity Law in 2005 stated that[5]:

> "The market objective is an economic concept and should be interpreted as such. For example, investment in and use of electricity services will be efficient when services are supplied **in the long run at least cost**, resources including infrastructure are used to deliver the greatest possible benefit and there is innovation and investment in response to changes in consumer needs and productive opportunities.
>
> The long term interest of consumers of electricity requires the economic welfare of consumers, over the long term, to be maximised. If the National Electricity Market is efficient in an economic sense the long term economic interests of consumers in respect of price, quality, reliability, safety and security of electricity services will be maximised."[emphasis added]

The importance of this explanation as to what the Law (and the Rules) requires[6], is that it provides a definition as to what is intended by the term "efficient". The MEU considers that the AER needs to similarly define "efficiency" in its guidelines, how it will interpret the requirements of the Law in relation to "efficiency". In particular, the AER needs to clarify that if an outcome of its processes does not result in efficiency as is define by the Minister in his second reading speech, then its processes must be changed to ensure that the outcome is "efficient". The benefit of defining "efficiency" in this way will provide the AER the ability to discern between competing aspects of the principles it proposes to develop its guideline.

In this regard, the MEU points out that in the past the AER has considered that regulatory certainty (such as the continued use of its flawed debt cost element in the Statement of Regulatory Principles) was more important than ensuring that the outcome of its deliberations reflected efficient practices. An emphasis on the Objective and the definition of efficiency should prevent this occurring in the future.

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[5] Hansard, SA House of Assembly Wednesday 9 February 2005, page 1452

[6] The MEU points out that the purpose of a second reading speech is to explain the intent of the Law being made so that interpretations of the Law are consistent with the intent.

2. A principles based approach

The AER posits the principles must provide a methodology that is:

1. Driven by economic principles
2. Supported by robust analysis
3. Implemented in accordance with best practice
4. Recognises the potential need for regulatory judgement, and
5. Supportive of broader regulatory aims

All of these are laudable goals, but they must not be closed ended – ie be used to close off issues that will assist in ensuring the outcomes will be demonstrably efficient.

In this regard, the MEU considers that the listed principles omit two essential features which must be overarching – that the principles must deliver an outcome that is efficient and that the outcome must be one that is clearly in the long term interests of consumers.

The AER notes in its Issues Paper that applying principles promote consistency in decision making. The MEU agrees, but points out that consistency only has value if the outcomes resulting from the use of the principles provide a credible outcome – one that reflects efficiency which, as stated in section 1.4 above, must result in the least cost to consumers over the long term.

If the application of principles (the methodology) delivers an outcome that is not consistent with the market as a whole, then the methodology used needs careful consideration, especially when applying regulatory judgement. The MEU therefore considers that another over-riding principle must be that the methodology must result in an outcome that is consistent with what is seen in the market as a whole and which reflects the market conditions of the time.

The AER points out that “false precision” must be avoided. This term implies that when an outcome is calculated with care and, that assuming the methodology is correct, the outcome must be acceptable regardless as to whether the outcome is patently false. The MEU considers that this issue is extremely important, as in the past for example, the AER has used its “regulatory principles” to calculate a debt risk premium which, when compared to what is available in the wider market, has been shown to be patently wrong. If the market shows that a methodology delivers an incorrect outcome, then the methodology must be wrong and must be changed.

The Issues Paper comments that preliminary discussions with stakeholders indicate there is an expressed preference for predictability. There is some merit in such a comment but, equally, all stakeholders would state that achieving the correct outcome must take precedence over predictability. Implicit in the observation that predictability is an important element that the rate of return

guideline must address, but also needed is that the methodology must be repeatable over time to provide long term consistency of the outcome. That previously used tools of the AER to address rate of return did not provide this long term consistency, highlights the need for an amended approach.

Predictability and repeatability are important aspects for a methodology but judgement comes into play when the calculated outcome is assessed as false when compared to real world outcomes. Consumers have already seen with the debt risk premium what can occur when regulatory principles (which provide predictability and repeatability) take precedence over the very intent of the Objective

Consumers do not want to pay a higher return to service providers than is appropriate under the circumstances and neither would providers want to have a lower return that prevents them from earning a reasonable profit.

Throughout the Issues Paper, the AER implies that there is a single methodology which can be applied across the entire scope of network regulation. At its very heart, is a primary concept that the same rate of return applies regardless of ownership and different features, and a secondary concept is that the rate of return should be based on the assumption that the asset is held by a privately owned entity with uniform features, such as debt equity ratios, geography, extent of the network and customer numbers. An outworking of the Competition Tribunal decision is the tertiary concept that only one quarter of network asset shareholders pay tax in Australia[7].

In practice, these three concepts are predicated on a flawed assessment of reality. When the value of the network assets is assessed:

- Over 80% of all electricity assets are owned by government corporations. These all incur a tax liability which is remitted to their state government shareholders, effectively as increased dividends.
- Of the 20% of electricity network assets held privately, the bulk is 50% listed on the Australian share market, with the other 50% held by an overseas government owned entity (Singapore government) or an overseas privately owned company.
- Well over 50% of the gas assets are owned by APA Group, which is an Australian company listed on the Australian stock exchange and an Australian tax payer
- A significant proportion of the remaining gas assets are effectively owned by the Singapore government with a similar amount owned by entities listed on the Australian stock exchange.

[7] This is an assumption drawn from the decision that “gamma” is assessed as being 0.25

The AER has not addressed this ownership issue in its principles on how tax liabilities of the three basic ownership structures are to be addressed other than implying a principle of private ownership. It is clear that this assumption will not deliver an outcome that meets the “efficiency” concept espoused on the second reading speech, that consumers should be exposed to the least cost in the long term. If governments intend to hold their network assets “in the long term” as most have publicly declared, then the benefits of government ownership (such as lower risk profile and cost of debt) must flow to consumers as is intended by the Objective.

3. Key concepts and terms

An issue raised by some has been that the concept of “certainty” needs to be a core element of the guideline. The MEU considers that certainty has its place, but must be placed well behind the concept that the outcome must be demonstrably efficient and reflect reality. A requirement for certainty can disguise many sins, and its inclusion must therefore be carefully considered to ensure that it does not prevent the development of the efficient outcome.

3.1 Efficient financing costs

The Issues Paper states that efficient financing cost is essentially related to the extent of gearing as gearing is the balance of financing costs relative to the risks and costs of debt and equity.

This simplistic assessment does not address the basic financial fact that debt is a cost to a firm (in terms of interest and liability) whereas equity is the value that is held by shareholders. Debt and equity have different risk profiles (and therefore different premiums) and have to be treated differently.

Whilst the Issues Paper seems to imply that there is a clear differentiation between the two, in practice, there are elements of equity that are more akin to debt and elements of debt that are more akin to equity(for example convertible notes and derivatives). This means that rather than a “black and white” differentiation, the degree of gearing needs to reflect the sorts and composition of debt and equity instruments that a firm has and how it uses these to reduce its overall cost of debt.

It is the relative cost of debt to the cost of equity and the appetite of lenders that determines the gearing of a firm. Regulators have previously determined that 60% gearing by a firm with a credit rating of BBB+ provides the most efficient funding. Yet there is no evidence that this assumption on gearing and credit rating reflects reality or that it delivers the most efficient cost of debt. In fact the market shows that higher gearing is possible with higher credit ratings than this benchmark used by regulators in the past.

Further, changing the amount of debt (or equity) not only changes the risk profile of the debt liability but also changes the risk of the equity the firm has in it. Thus, to assess the most efficient financing cost is not just an assessment of the gearing, but also in the types of debt and equity involved and the relative cost of debt and the return on equity expected by shareholders.

For example, a higher gearing might provide more efficient financing in terms of cost and risk associated with the way debt is acquired than a lower gearing with a different source of debt. Therefore, to consider just gearing in the absence of the make up of the debt actually provided is unlikely to determine that the efficient financing cost boundary has been reached.

In fact, analysis of the actual gearing of the regulated energy network firms shows that they have actually implemented higher gearing than the notional 60%. Firms with a higher risk profile (in part driven by the competitive nature of their activities) tend to have a lower gearing – something that is driven by the risk assessments made by lenders rather than a decision of the firm itself.

Another aspect of what determines efficient financing costs is the term of the period over which the debt is to be set rather than the term of the life of the assets. For example, if the value of the debt acquisition is to be reset by the regulator in another 5 years, then there is less risk for the regulated firm than if the debt cost is to be reset after a longer period (such as 10 years as was proposed recently by Murraylink). Thus the term of the regulatory period has a significant impact on what are efficient financing costs.

3.2 Benchmark efficient entity

The Issues paper posits that the guideline must be centred on the "benchmark efficient entity". The MEU considers there is no such entity. Structures of ownership, decisions on retained earnings, debt and equity ratios, sources and terms of debt, etc are so wide reaching that a simplistic formula cannot identify what is the most efficient way of combining all of these variables into one "benchmark efficient entity" and in fact different combinations could well be equally or more efficient.

There is an assumption that debt and equity can be combined in such a way that allows a single "best practice" approach to setting a rate of return on assets. This is indeed a tall order, as debt and equity have quite differing characteristics and risk profiles. It is only by separating the two can the overall benchmark efficient funding be identified – by examining the fundamentals of sourcing both debt and equity in isolation.

A regulatory decision (as is noted earlier) is about providing a "bucket of money" for the service provider to access to deliver its services. It is therefore practical that debt and equity can be treated separately and in different ways but always with the view that each must be efficient in its own right in order to develop the concept of benchmark efficient funding. Once the cost of each is determined, then the two can be combined into a single rate of return on assets.

The MEU is concerned that the AER is endeavouring to combine both into one formula or method before each is examined for its impact. This is the way regulators have addressed rate of return in the past. Yet, those self same regulators have identified that opex, capex and depreciation are to be addressed in different ways because they are different, so why is there a drive to assess two other elements (debt and equity) jointly when they are just as different? Once this shift in concept has been made, many other aspects that

are concerning the AER in relation to the rate of return become so much easier to manage.

Just as the AER has developed a concept of the efficient service provider in terms of opex, so too can the AER develop a concept of the efficient service provider in terms of debt. At its most basic, this is what all businesses do – they identify what levels of debt they can manage and then seek the most efficient way to access the debt. The only involvement that equity has in the accessing of debt is relatively peripheral when the lenders are assessing their risk of the loan they might make.

The fundamental issues that a lender looks at before making a loan are:

- The extent of other loans already provided to the firm and when these fall due
- The likelihood that the loan will be repaid. There are a number of financial aspects of the firm's business plan that lender will look to assess this likelihood
- The risk of defaulting on the loan. This is usually related to the planned revenue and its certainty.
- The financial history of the firm in relation to forecasting revenue and management of loans
- The market risk faced by the firm, eg, is it in a regulated market with lower risk of revenue uncertainty or operating in a fully competitive market?

The MEU has previously provided the AER with access to advice on costs of debt acquired by firms in capital intensive industries and the outcome of this material provided was a view that the cost of debt was less dependent on the industry than on other basic lending fundamentals. The MEU considers that the AER should take advice from other (non-network) large capital intensive firms on how they access debt and its cost and use this information to better understand the drivers of how debt is managed.

In contrast, equity is generally provided in two forms – a proportion of retained profits and quite infrequently, by new equity raising from the existing and/or new shareholders. Very infrequently, equity is involuntarily provided by lenders after the firm has defaulted on its loans.

The most common form of equity injection is from retained earnings and the decision as to the extent of this is made by the firm's directors with only minor reference to the views of shareholders.

This indicates that the AER should recognise this reality and address the acquisition and cost of debt differently to the acquisition and cost of equity. Having separate approaches for both allows the AER to identify the cost of debt

and the cost of equity in regulated firms and compare these to what is seen in the wider market after making adjustments for the differences in risks.

One of the major benefits of this approach is that the AER has a much wider pool of information on the costs of debt available to it because the acquisition and cost of debt are related more to the first four lending fundamentals noted above than the markets in which the borrower operates. This wider pool of information would include what costs of debt firms in other capital intensive industries[8] are paying for their debt – this will allow the AER to better understand the risk premiums that are being sought by lenders.

Once the costs of both have been assessed, the total cost of financing for the regulated firm can be calculated from the two separate assessments (debt and equity) and an overall cost of financing can be developed.

3.3 The conceptual definition

Because the AER is seeking an overall rate of return, it then gets caught up in trying to identify what is the definition of what type of firm it is attempting to set a rate of return. The AER than identifies that there is an extremely wide variety of structures for firms operating in the regulated network space. The MEU provides some features of these in section 2 above.

The AER advises that it has historically used the concept of the "pure play" definition. The only networks that are "pure play" are entirely government owned entities although even some of these (eg Aurora) have retail functions and some are involved in non regulated energy business activities as well. All the privately owned networks have different parental ownership structures, resulting in different investment approaches, although the debt risks are quite similar. Government owned entities have a different debt risk profile to privately owned entities. Thus, there is difficulty in identifying what might be the best conceptual definition[9].

The AER then asks if less or more detail as to the basic conceptual definition is preferred.

The identification of the conceptual definition has more relation to the equity element of the rate of return as this is where the bulk of the risk lies. All of the options considered by the AER in table 1, essentially concern the risks and impacts of the equity part of the rate of return, more so than the cost and acquisition of debt.

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[8] The MEU notes that banking is also a capital intensive industry

[9] The regulatory design should not be subservient to the what specific regulated firms do but should reflect the actualities of how debt and equity are acquired and should reflect the most efficient methods of minimising costs.

Separating the cost and acquisition of debt from the cost and acquisition of equity focuses the importance of the conceptual definition to the equity element. As the AER has addressed previously through its assessment of equity beta, there are a number of tools available to it to assess the risk inherent in the provision of equity by a monopoly provider of essential services.

3.4 The basis of setting the rate of return

By far the most common regulatory period is five years. In the early years of energy network regulation, the ACCC developed its rate of return based on a risk free rate reflecting the regulatory period (usually five years). Other regulators used a risk free period of 10 years regardless of the length of the regulatory period. On appeal to the Competition Tribunal, the ACCC was required to use a 10 year risk free rate because it was using a market risk premium calculated over 10 years and debt risk premium based on 10 years. The Tribunal view was that this was internally consistent.

In its recent draft decision for the revenue reset review of Western Power, the WA energy regulator (Economic Regulation Authority – ERA) calculated the rate of return for Western Power based on a 5 year risk free rate as this reflected the duration of the regulatory period. The ERA calculated the market risk premium and the debt risk premium with reference to this 5 year risk free rate ensuring internal consistency of the calculation.

The MEU sees that relating the forecast rate of return to the duration of the regulatory period is consistent as the costs of debt and equity are reviewed (and changed to reflect the new market conditions) for the next regulatory period. The practice of setting a rate of return based on a 10 year forecast for a five year duration is not consistent.

Although this issue is not raised by the AER, it is a conceptual issue that needs to be clarified and included in the guideline.

3.5 Conclusions on the Benchmark efficient entity

The AER posits that having set a concept definition of a benchmark efficient entity, it is able to assess estimates of rate of return and acquire a collection of market evidence relevant to the benchmark. The AER then observes that practically there is no perfect fit and that some relaxation of the concept definition is required. Such an approach reduces the effectiveness of the approach and limits the amount of evidence that the AER has available to it.

The MEU approach of separating debt and equity overcomes much of the difficulty identified by the AER with defining which concept should be used as a benchmark by:

- Using less definition in structuring its benchmark efficient entity,
- Concentrating more on the two separate elements of the rate of return the entity should enjoy
- Allowing the changing market environment to be incorporated in the decision making.
- The inputs to the rate of return should be based on the duration of the regulatory period.

The MEU detailed approach to each of the two basic elements which comprise the rate of return is addressed in the following sections 4 and 5.

4. Return on equity

For all firms (including regulated firms) the actual reward (return on equity - RoE) is an outworking of performance, with its profit generated from a number of activities such as price shifting within the price cap, changed consumption, lower opex, better sourcing of debt and lower capex. Every firm reports to its profits to shareholders in the same basic way on its financial outcomes, treating the payment for debt incurred in the period as a cost to the firm.

In theory, investors (particularly founders of firms) take a position in a firm on the basis that they will recover their investment and achieve a significant return in the longer term[10]. The import of this observation is that the return on equity tends to be measured over longer durations and this impacts on how the elements of the inputs to the return on equity calculation should be assessed. As a result, the **expectations** of the return on equity tend to be more stable over time than annual financial outcomes for each firm, or even the inputs used in many of the formulae used to forecast the RoE.

The difference between a regulated firm and others, is that regulated firms have their future revenue determined whereas firms in a competitive environment do not have this certainty of future revenue. The main risk to a regulated firm is whether the allowed revenue will exceed its costs but this is much less of a risk than that faced by unregulated firms that have no certainty on future revenue from sales but must still keep their costs less than revenue.

The current regulatory approach used in Australia is the building block where various future costs are calculated and summed to create a “bucket of money”. With the building block development, all profit to the firm notionally comes from the RoE calculation as other inputs are intended to be cost recovery (eg opex, depreciation, debt).

The current approach assesses the average of the premium (as measured by the ASX accumulation index[11]) relative the contemporaneous risk free rate (as provided by the Commonwealth 10 year bond rate). This long term average (moderated by a risk factor – equity beta) is then applied to the current 10 year bond rate to provide the expectation of what is a reasonable forecast of return on equity for the firm. If the firm uses less opex and capex and sources debt at lower costs, then this will enhance the profitability of the firm.

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[10] Having stated that, the MEU recognises that professional advisers to shareholders report their performance in the short tem and this short term analysis has resulted in shareholders seeking maximum returns in the sort term. In contrast, founders of firms tend to assess their rewards in the longer term.

[11] The accumulation index assumes the dividend set by the firm is reinvested in the firm and this provides a composite of dividend and capital growth to reflect the total return an investment will provide

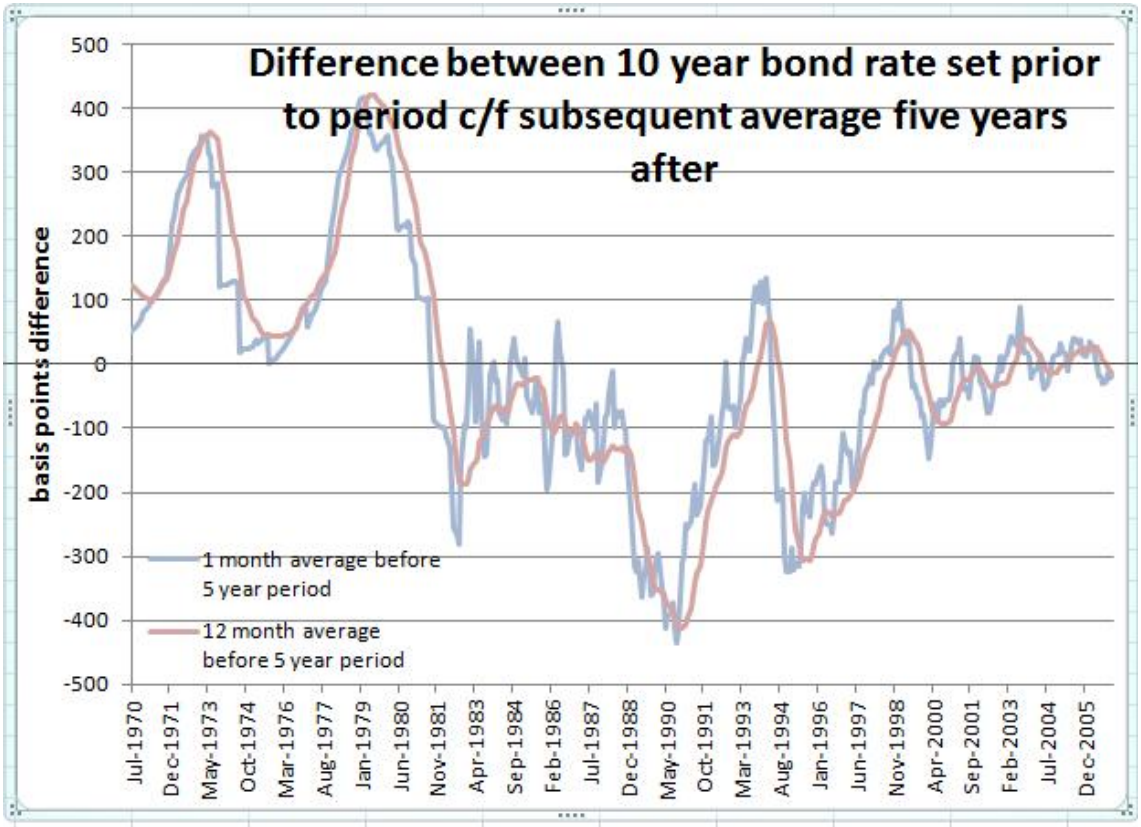
An issue raised frequently by regulators is that the RoE has to be forward looking and therefore should not reflect past performance. In fact two of the inputs (market risk premium and equity beta) used to provide this forward looking outcome are derived from historical performance but the risk free rate is used to provide the conversion to a forward looking estimate. As discussed in section 4.1 below, the forward looking outcome of the risk free rate is not such a good estimate of future costs as might be imagined.

For regulated firms RoE is a forecast of what might be considered to be a reasonable profit and return to shareholders. Should it be a reward reflecting the long term or a short term expectations of the market, recognising that actual returns vary each year and reflect the current financial environment? The MEU considers that expectations are that shareholders consider a stable return over the long term is what is expected – especially for a “defensive” stock which is what regulated networks are expected to be.

4.1 Averaging period

One of the contentious issues debated during the AEMC forums on rate of return was the length of the averaging period used to calculate the risk free rate. At one end of the scale the most forward looking forecast is assumed to be based on the latest single point data available, and at the other end of the scale was that a longer term average provides a better extrapolation of the historic data. Currently, the regulated firm has considerable influence over how long it considers this averaging period should be. As a result each regulatory reset can have varying averaging periods. The MEU considers that research is need to examine the outcomes of differing averaging periods for the risk free rate against what was actually seen in the years after the averaging period.

As part of the AEMC forum, the MEU provided the following chart, which measures the difference between a risk free rate seen prior to the subsequent five year period with the average actual risk free rate during the following five year period. In the assessment, the averaging of the risk free rate set for the five year period was averaged over the last month prior to the start of the five year period and then over the last 12 months prior to the five year period.



Source: RBA data

What the analysis shows is that the 12 month averaging period delivers a less volatile outcome but one which is not too dissimilar to the outcome based on 1 month averaging. This tends to indicate that the averaging period prior to the 5 year period, has a modest impact in general terms. However, there is sufficient evidence to indicate that there is a probable benefit of having differing averaging periods in specific instances – allowing this provides the regulated firm with the incentive to game the averaging period to maximise its benefit.

The MEU therefore considers that the averaging period should be fixed and be longer than 1 month in order to smooth out short term variances.

The second issue that can be seen from the chart is that over the past decade, the variance between the 12 month average risk free rate and the average of the subsequent 5 years is significant, varying between +50/-100 basis points. This occurred when the risk free rate was averaging between 5% and 7%, implying an error of between +8% and -15%. Because the rate of return based on the CAPM approach contributes to the largest single element of revenue under the building block approach, an error of this magnitude is of concern.

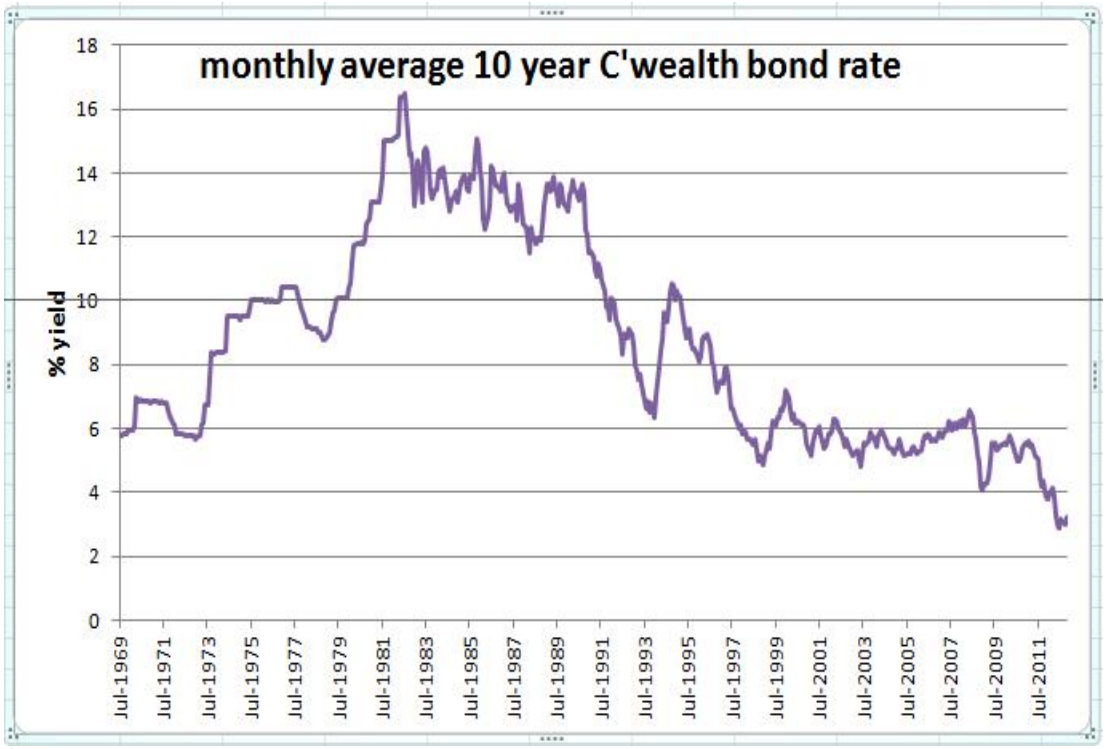
The MEU considers that the guideline needs to address an inherent error between using a forecast risk free rate and what actually is seen, regardless of the averaging period used to set the forecast risk free rate

However, the long term expectation of the return on equity, on average, of a stable outcome is at odds with the actual regulatory practice. Over the past 12 - 18 months, the return on equity calculated by the AER using the 10 year CGS has delivered a return on equity that has been demonstrably below the long term average RoE calculated from the accumulation index. Equally, the actual market risk premium in recent years has been below the long term average.

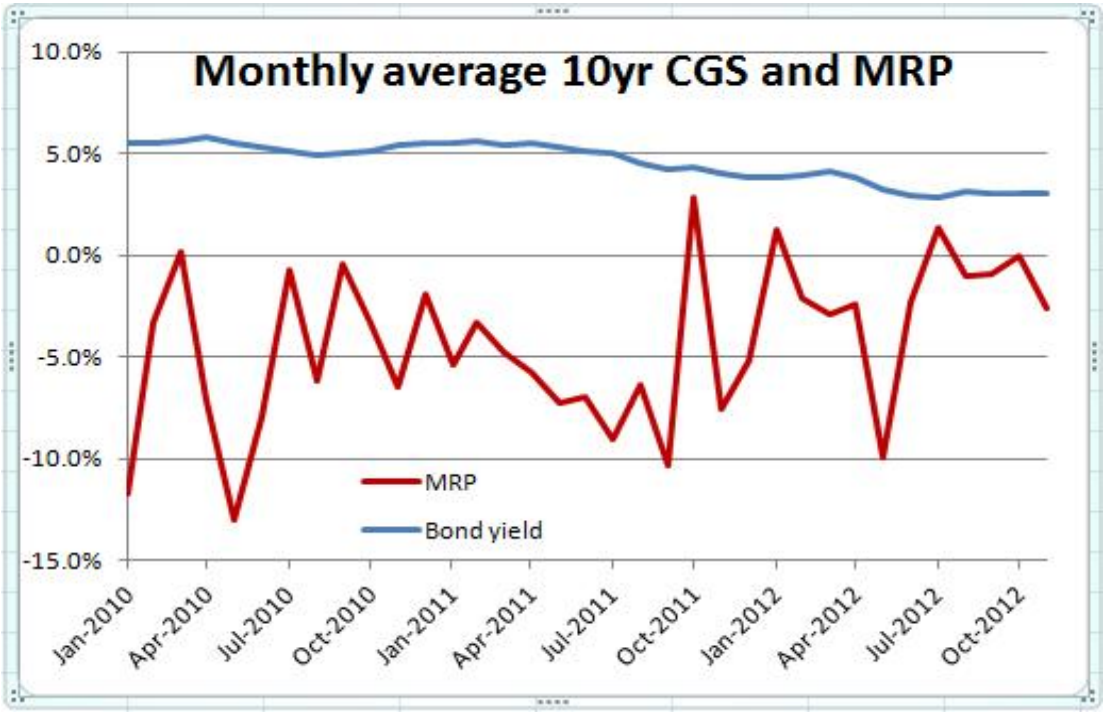
Yet the **expectation** of the RoE remains that it should be more like the long term average seen from the accumulation index. Thus the only element used by the AER for setting a forward looking RoE (ie the risk free rate) would appear to be delivering outcomes that are inconsistent with long term expectations and probably delivering an inappropriate outcome

4.2 Drawbacks of the current approach

The current approach has drawbacks and the following two charts are used to exemplify these.



Source: RBA



Source: RBA data for 10 year CGS and ASX accumulation index

The charts assist in identifying two drawbacks with the current approach to setting RoE:

- Regulatory practice is that the short term risk free rate is combined with a long term average market risk premium moderated by an equity beta assessed over the medium term. If the risk free rate is distorted by other aspects unrelated to the performance of the market, then the RoE outcome will be distorted. For example, the current risk free rate is considered to be low compared to historical averages and if the duration of this "aberration" is expected to last for a shorter time than the regulatory period that it will be used for, then the return on equity allowance will be lower than the expected RoE.
- Using a long term average market risk premium does not reflect short term market variations. For example, the long term market risk premium has been calculated as being 6.0 yet in the last two years (since the 2008 global financial crisis) the actual market risk premium has generally been zero or lower, even being negative for much of the time. This means that consumers could be considered to be paying a premium by using a long term historic average.

In both drawbacks, the reverse has applied with very high risk free rates (more than twice the long term average) and market risk premiums much higher than the long term average.

Other drawbacks are:

- The ASX accumulation index only includes firms that are publicly listed. There are many more firms operating in the Australian market that are not listed but still contribute to the wider national economy. This means that the pool of inputs is constrained and not fully representative
- The ASX accumulation index includes firms with varying proportions of assets relative to revenue. The benchmark used is not specific to firms that are capital intensive. This means that the sample used to generate the risk premium is not representative of the specific features of the networks and this type of investment.
- The ASX accumulation index is an overstatement of the actual performance of the market. The index measures only the performance of firms that are successful. Unsuccessful firms (which would have imposed negative returns) are eliminated from the index as they fail and would, if retained, provide a dampening effect on the index.

4.3 Models used

The MEU notes that regulators have used (successfully) the Sharpe-Lintner Capital Asset Pricing Model (CAPM) over many years but it must be recognised that it, and many other similar models, does have drawbacks in attempting to develop an appropriate forward looking return on equity to apply over a 5 year period. This means that there is a need to assess the calculated forward looking return on equity using this approach to identify if the outcome reflects the current state of the markets to ensure that the rate calculated is appropriate.

There have been discussions about the use of variants of the S-L CAPM to assess returns on equity (and overall rates of return) with a continuing view that the variants are not sufficiently proven to deliver appropriate outputs and/or require data sets that are insufficient to give confidence in the outcomes.

The MEU considers that there has to be a demonstrably better outcome from any new approach than that achieved by the S-L CAPM. Such demonstration can only come from assessing each new model against real world outcomes rather than against other models.

However, the outcomes using the S-L CAPM for RoE have been volatile and in recent times, and are not delivering reasonable outcomes. The MEU considers that the outcomes from the application of the S-L CAPM should be checked against actual outcomes both in the forecasting and during the regulatory period. It is only when armed with documented evidence of model outcomes compared to actual outcomes can the AER raise the debate about model inputs beyond academic theory.

It must be remembered that theories must be proven to replicate real world outcomes before they should be given credence.

4.4 The need for benchmarking

In addition to the observations made above, the MEU considers that a core aspect of the new approach to setting RoE must be that the outcomes from the modelling approach should be demonstrably consistent with market outcomes.

To achieve this, the MEU considers that:

- The forecast developed at the start of the regulatory period must be tested against actual outcomes (adjusted for the difference in risk) actually being delivered by firms in other capital intensive industries.

- During the regulatory period, the AER should test the allowed RoE against the actual firm's RoE and the returns seen from the accumulation index so that confidence can be gained (or not) as to the effectiveness of the forecasting methodology used. Comparisons against the average outcomes for firms in other capital intensive industries (adjusted for the difference in risk) should be included as a benchmark.

This analysis of historic outcomes needs to be reflected in future assessments of what appropriate RoE levels should used in the future.

4.5 A conclusion from this analysis

The ASX accumulation index provides the very basis for identifying the long term expectation of the "average firm". As such it is a benchmark which is readily available which reflects the longer term nature of what is expected from a long term investment.

When compared to the volatile outcomes from using the S-L CAPM approach (based on equity beta and market risk premium calculated over the long term and the short term risk free rate) and other models, there is potentially a better approach to setting RoE for regulatory purposes. This to set the RoE as the long term average seen in the market over time using the long term average risk free rate coupled to the long term market risk premium moderated by the long term equity beta.

Whilst this calculation does not reflect the short terms variations that the "forward looking" approach imposes, it more closely reflects the expectations of investors over the long term.

This approach reflects quite well the other forms of assessing RoE from investments, such as the simple pay back period assessment, the IRR approach where stay in business investments commonly have a 12-15% IRR benchmark and speculative investments have a >25% IRR benchmark. The fact that payback periods and IRR benchmarks have remained constant over many years supports the view that a stable RoE based on long term averages is more

likely to reflect investment triggers than other indicators based on more volatile inputs.

5. Return on debt

All firms treat debt as a tool for accessing funds without affecting the amount of equity the firm has. As such it is a cost of doing business. Firms use as much debt as they can access because it is a lower cost source of funds than using equity, thereby resulting in a lower overall cost to the firm of doing business and maximising the returns to shareholders.

Lenders make their profits by lending and they minimise their risk of providing funds by ensuring the amount of debt provided is controlled (limited), that there is a high level of certainty that the debt will be repaid in full on the due date and the interest on the debt will be adequately covered by the revenue the firm expects to achieve.

It is axiomatic that, once the mental shift is taken from treating the cost of debt as a cost to a firm, the current regulatory approach to setting a risk free rate and adding a debt risk premium is seen as essentially flawed. In fact, the way the debt risk premium is basically developed demonstrates the circularity of the approach[12].

There is a link between the level of gearing and credit rating, and between credit rating and the cost of debt. There have been no studies examining where the efficient point is between the benefit to the total cost of funding by increasing gearing and the cost penalty of the increase in the cost of debt caused by the higher gearing. Therefore it is logical to use the actual performance of a regulated firm in acquiring debt, as a starting point for identifying the most efficient way to acquire debt and its extent.

5.1 The regulatory approach to debt

The AER approach using CAPM does not treat debt as a cost, but as an input into the rate of return required by the regulated firm. This is an artificial construct and has led to considerable difficulty in setting acceptable costs of debt for regulated firms.

The building block approach does not mandate that a rate of return on debt and equity must be used – in fact the building block approach provides a “bucket of money” which is built up from an individual assessment of each major cost element. Implicit in this approach is that the return on equity provides the expected profit that the regulated firm should earn. By following the concept of

[12] To derive the debt risk premium, the regulator identifies the current forward cost of debt from a fair value curve. The risk free rate is then subtracted revealing the current debt risk premium. The CAPM formula then recombines the risk free rate with the debt risk premium to deliver the cost of debt.

building debt into the rate of return, it becomes more difficult for the regulator to assess what is the benchmark cost for the provision of the debt required by the efficient firm.

Incentive regulation requires allowing a regulated firm the flexibility to implement the lowest cost approach in providing the service. The intent of providing this incentive is that over time, the regulated firm will find the most efficient way of managing each of the costs that the firm incurs in providing the service, so that consumers will benefit from the innovations implemented by the firm. As debt is a cost to the business, then it too should be incentivised to minimise its cost and to pass this saving on to consumers.

Under the previous rules the AER was required to set debt costs on the basis that a regulated firm has a credit rating of BBB+ and with this assess the cost of debt for a 10 year corporate bond. The issue with this approach is that there are few corporate bonds issued of this duration and none by firms rated BBB+. Historically, regulators used an average of fair value curves issued by CBA Spectrum (now discontinued) and Bloomberg. The problem with these fair value curves is that the derivation of the inputs is not revealed, creating concern with their applicability. The recent outcomes using the Bloomberg fair value curves indicate that these do not provide a credible indication of the true cost of debt incurred by networks.

The MEU considers that the cost of debt needs to reflect what the actual market imposes on borrowers rather than using “fair value curves”. Further, the imposition of 10 year forecasts for the cost of debt does not reflect the portfolio approach to debt acquisition that most firms use to manage the risk and cost of their debt, nor to the average terms of debt acquired.

In this regard, the ERA devoted considerable effort into assessing the average duration of debt terms and concluded that[13] regulated energy firms:

- Do not seek to issue long term debt as a preference (this is consistent with what is observed in the wider market for debt)
- Generally avoid having a significant portion of debt maturing in any one year (this is consistent with what is observed in the wider market for debt)
- Which are privately owned have over 50% of their debt with a term of less than 5 years (this is consistent with what is observed in the wider market for debt)
- Which are government owned have a slightly longer term than privately owned firms (this is to be expected as they all are funded from their related Treasury Corporations)

[13] Draft Decision on Proposed Revisions to the Access Arrangement for the Western Power Network 29 March 2012 pages 176 - 178

From these conclusions, the ERA developed a panel of 27 firms rated A- that had issued corporate bonds in the Australian market for terms ranging from 2 to 10 years and included firms other than those involved in providing energy network services.

Overall, the ERA approach is much more reflective of reality than that used to date by the AER. Where the ERA approach has its limitations, is that it has assumed that all debt is acquired through the issue of corporate bonds in Australia. In practice, debt is acquired from other sources such as banks and the overseas bond market and of different types[14].

In its analysis, the ERA examined the financial reports issued by both regulated energy firms and other firms and used this information to develop its conclusions. The MEU considers that financial reports provide a deep source of information as to the real costs of debt incurred by all firms, including regulated firms. This source of information should be used much more by regulators than has been the case in the past.

5.2 Accessing debt

The AER Issues Paper identifies that there are many ways of providing the debt required by firms and points out that regulated firms have different approaches to setting the cost of debt, ranging from notionally refinancing debt for the entire regulatory period at the start of the period through to a portfolio approach where there are different forms of debt, with different terms and costs with some then hedging the portfolio risk.

However, the AER does not contemplate that accessing debt can be carried out more efficiently by identifying how the wider market addresses debt acquisition. The problem that should confront the AER is not how regulated firms might manage their debt and the associated risks (that is an issue for the specific firm) but how the acquisition of debt and its costs can be determined to be most efficient. This sets how much in “the bucket of money” the AER considers is needed for the provision of debt and, in setting this allowance, the AER needs to identify how other firms in capital intensive industries acquire and manage their debt exposure, because this is only way the AER can identify what is the most efficient approach to provision of debt and its costs will be found.

The implication of the Issues paper is that there is one cost of debt. In practice, a private firm will have a number of sources of debt[15] and these sources will have different rankings for repayment – that one lender will have the right to repayment before another lender. The lender with the right of prior repayment

[14] For example, recourse and non-recourse debt
[15] Government owned firms have only one source of debt – that provided by the associated Treasury Corporation

will require a lower cost of debt than a lower ranked lender because of the greater certainty of repayment. This has an impact on the average cost of debt incurred by the firm borrowing the funds. Therefore it is necessary when assessing the efficient level for the cost of debt to examine the average costs of each form of debt in the portfolio. As noted in section 3.1 above, the greater the gearing (and therefore increasing costs of debt for lower ranked borrowings) the average cost of debt will increase but the average will not be the cost of the lowest rank tranche of debt provided.

The AER asserts that its approach of using a point in time to assess the cost of debt (whether a short or long averaging period) provides the basis for a forward looking cost of debt. Pragmatically, this assumes that the efficient cost of debt for the regulatory period will be the acquisition of all debt at the start of the period and the debt falling due at the end of the period. This approach imposes unnecessary volatility on regulated allowances and increases risks for the regulated firm in attempting to ensure that its costs of debt are lower than the allowances.

The question then arises as to whether the current approach is really “forward looking” or just has the appearance of being so. In fact, the current approach is not resulting in a reflection of the costs of debt **expected** to be incurred during the period. The expected costs are based on the actual debt arrangements in place modified by the replacement of debt as each tranche of debt matures. This means that much of the cost of debt expected to be incurred reflects costs of debt arranged in the past. Thus a forward looking cost of debt will recognise that some debt reflects historic costs and some will reflect the cost at a point of time in the future but not based on costs at the single point in time at the start of the period.

The revenue and pricing principles require the recovery by the network “of at least the efficient costs” it incurs so, as efficient provision of debt (being a cost to the network) is demonstrably based on a portfolio basis, the AER must accept that its assessment of debt is a mix of past debt arrangements and future debt arrangements – it is not that all debt is acquired at the start of a regulatory period.

5.3 The averaging period

In section 4.2, it is shown that the averaging period for the risk free rate (debt acquired by a AAA rated government) has a noticeable impact on the volatility of the outcome. It also shows that using a point estimate for assessing the cost of debt over the next five years is not accurate – even averaging over a 12 month period shows there is considerable difference between the cost of debt forecast and that actually seen.

However, as noted in section 5.2, debt is not acquired at a single point in time because this is not efficient and increases risks immeasurably. Soundly run

firms do not acquire all of their debt at a single point in time nor do they have all their debt falling due at the same time. This highlights that the use of an averaging period does not really provide a solution as to how debt is acquired in the most efficient manner. In earlier sections, the MEU highlights how debt is acquired in the most efficient manner, in the "real world".

5.4 A better approach

Following the practice for benchmarking used as the primary tool for identifying efficient opex, the MEU considers that the cost of debt actually declared by regulated firms provides a sound starting point for identifying the efficient cost of debt. This "revealed cost" approach replicates how opex is currently treated.

The AER has identified that it needs to set a forward looking funding model for the regulated allowance. In the case of opex, the regulator uses the benchmark efficient year as a starting point. The benchmark efficient starting point is driven by the use of an efficiency benefit sharing scheme (EBSS) to incentivise the firm towards the "efficient boundary" for cost. Once the notional starting point is identified, the forward looking aspect is achieved by adjusting the efficient opex to reflect changes from step changes and in costs, growth and efficiency.

As with opex, identified step changes can be used to vary the actual cost of debt incurred by each regulated firm. At its most basic, the use of actual data from the firm provides the regulator with an independent view of how the market sees that specific firm and the risks faced by the lender(s)[16] to the firm. The average cost of debt incurred by the firm will include the benefits of its portfolio of debt and accepting that the firm has attempted to minimise its cost of debt, provides the regulator with an assessment of the benefits provided by the portfolio approach.

The changes identified from the market for corporate bonds can be used to provide adjustments to the base cost of debt actually incurred by the regulated firm. Comparison of the costs of debt incurred by other similarly credit rated firms adds confidence to the assessment of efficiency levels reached by the firm. In the case of government firms, Treasury forecasts of the cost of debt issued by the state government owner can be used to moderate the cost of debt expected over the regulatory period.

As the Issues paper recognises (and as did ERA in its assessment for Western Power), not all of a regulated firm's debt will mature during the regulatory period. This means that only debt that matures during the regulatory period

[16] At a very pragmatic level, a risk assessment made by a lender actually providing funds to a firm is much more likely to be appropriate and forward looking than an assessment made by the regulator about the costs of debt applied to other firms

needs to be adjusted for a future step change and only to the extent for the remaining time between the time of maturing and the end of the regulatory period. This has a significant impact on the average cost of debt for the entire regulatory period.

Using a firm's actual costs (appropriately adjusted by known future changes) provides the firm with an incentive to reduce its costs for debt acquisition for matured and additional debt required during the regulatory period and this can be enhanced with the implementation of an EBSS. This provides consumers (in the longer term) with the benefits of innovation implemented by the firm, keeping consistency with the intent of incentive regulation.

It has been stated by regulators in the past that using actual recorded costs as the basis for setting allowances for the cost of debt results in the provider not seeking to minimise future costs because they consider that recovery of actual costs exposes them to little risk. Such an observation does not match commercial reality.

This approach provides a number of benefits:

1. It provides the regulator with hard data on what are apparently efficient costs of debt for that firm and its associated
2. It incorporates the benefits of a debt portfolio approach and other tools used to minimise the cost of debt
3. As demonstrated by the ERA, the terms of debt in the debt portfolio are more likely to reflect the duration of a 5 year regulatory period than the current AER approach to setting debt costs based on a 10 year CGS and 10 year corporate bond.
4. There is no need to set an averaging period for the calculation of a point debt as the durations to maturity of the debt portfolio obviate this need.
5. If the actual cost of debt is higher than the cost of debt used to adjust for the step change, the cost used to make the step change can be used as a cost cap to impose pressure on the firm to minimise its cost of debt.
6. Any saving the firm achieves from accessing lower costs of debt will be retained and a continuing benefit provided through an EBSS providing consumers with a benefit in the longer term
7. The firm itself identifies what is the most appropriate gearing for itself, avoiding the regulator having to make arbitrary decisions as to the most appropriate level of gearing for that specific firm
8. The result will deliver, for that specific firm, the most efficient level of funding costs relative to the risks it faces

6. Overall rate of return

The MEU considers that the rate of return (RoR) should be calculated from the development of the cost of equity and the cost of debt calculated following the principles provided in sections 4 and 5 above. These costs can be summed and then applied to the regulatory asset base to provide the RoR for the entity as a whole. This calculated RoR can then be used for the roll forward model and in regulatory assessments of further investment.

The actual approach by the firm determines the level of gearing the firm has implemented to ensure the “least cost in the long term” and provides an outcome that approaches the efficient boundary.

To a large extent, the development of the RoR using this method uses the actual performance of the regulated firm, albeit with some moderating influences. The risk inherent in using actual data from the regulated firm provides an outcome that is more reflective of how the firm actually operates and therefore provides a degree of consistency for the outcome.

The Issues Paper comments that the derived rate of return (whether by formula or by any other process such as the MEU approach) is a “bottom up” assessment of what might be appropriate as an acceptable rate of return. It then posits that this outcome should be assessed in terms of a “top down” assessment as a reality check.

In the past, the ACCC and some state regulators did carry out some financial assessments to ensure that the calculated outcome was appropriate. Presumably, if there had been a significant discrepancy between the bottom up assessment and the top down assessment, changes would have been made, but the MEU is not aware of any changes being made as a result of the top down assessment.

The MEU supports such reality checks being made and supports those suggested by the AER. Additionally, the MEU considers that at least two more checks should be made.

Firstly, the AER should ensure that the outworkings of the rate of return calculation needs to reflect those returns actually being seen in the wider market. It would be bizarre if, as has frequently occurred with previous regulatory decisions, that regulated entities receive higher rates of return than firms operating in a more risky environment. Benchmarking against what is actually occurring in the wider market must also be an assessment as to whether the bottom up approach has delivered outcomes that are in stark contrast to what other firms are achieving despite operating in competitive environments.

Secondly, The AER should track over each regulatory period (and report on it) whether the rates of return, on debt and on equity for the regulated firm match the rates used by the regulator. The AER already does this in relation to opex and to a lesser extent in relation to capex. The rate of return allowed provides another element to the "bucket of money" assessed as being appropriate payment for the services provided. If there is a significant variation between the allowed rates to those actually achieved, then this provides the AER with evidence that change to its bottom up calculation is needed.

This longitudinal assessment also allows the AER to identify if the regulated firm has implemented more efficient ways of financing its operations. If it has, then because the regulatory regime is one of providing incentives so that over the long term, consumers will enjoy the benefits of the improvements in efficiency, these more efficient financing approaches should be integrated into the future rates of returns allowed.

7. Response to the specific questions raised

The MEU provides responses to these questions as requested but advises that in responding to these, the MEU highlights that the responses reflect the commentary provided in the above sections.

#	AER Question	MEU response
Principles based approach		
1	**Do stakeholders consider that following these principles would promote the allowed rate of return objective? Should any of the principles be considered as more prominent or important than others?**	See comments in section 2. All five principles are laudable but exclude the principle that the regulation must deliver an efficient outcome. This means that the outcome must be credible and reflective of what is actually seen in the market. The outcome is not efficient if the market provides evidence that the outcome is out of step with what is actually seen. Ensuring an outcome that is efficient (as defined by the drafters of the Law) must take precedence.
2	**Are there other principles or criteria which should be considered?**	See response to Q1
3	**Do stakeholders have a broad preference for predictability or flexibility, and do these preferences differ at each level (the overall rate of return, the return on equity and debt, and at the parameter level) of the rate of return?**	Consumers have a preference for the most efficient outcome to be implemented. This must have priority over predictability and flexibility. Consumers have seen predictability over-ride efficient outcomes, so implicitly, predictability is not a preference. By elimination, this means that consumers have a preference for flexibility which ensures the most efficient outcome is achieved.
4	**To what extent should the guideline set out a pre–determined approach that can**	The MEU sets out its basic approach in the body of the response. Essentially, the MEU considers that the cost allowance for debt should be assessed as a

	then be applied at each determination?	cost and not integrated into a formula before the actual costs are identified. The MEU considers that the cost of debt should be treated in the same way as the cost of opex. The cost of equity should be calculated separately and then the rate of return calculated from these two separate calculations. The guidelines should be based on this concept.
Key concepts and terms		
5	**Aside from a balance between debt and equity financing, are there other characteristics of the way in which an efficiently financed entity would approach its financing task that should be considered in estimating the allowed rate of return?**	See comments in section 3
6	**Is it still appropriate to separate a conceptual benchmark from its practical implementation?**	See comments in section 3.2. As debt and equity are entirely different concepts and debt is treated as a cost of doing business, the MEU considers that these two elements need to be addressed totally independently and allowances made for them based on different criteria. Therefore the conceptual benchmark bears only a passing relation to the actuality of debt and equity acquisition and their costs to the firm. The MEU considers that the allowances for these two elements need to be calculated independently

7	**Does the current definition reflect an appropriate level of detail for the conceptual definition? Are there other factors which should be considered?**	No. See comments in section 3.3 The current definition is not applicable to the actuality of the market. It has little relevance to the cost of debt as the way debt is acquired by all firms is based on the requirements of lenders and these are common across all industries. In contrast, the way equity is acquired is closely related to the shareholders and their desires and therefore the conceptual definition applies only to the cost of equity.
8	**In relation to the current definition of the conceptual benchmark, is more or less detail preferable?**	As commented on in the answer to Q3, predictability is likely to result in outcomes that are not necessarily efficient. Therefore flexibility is required to ensure that the most efficient outcome is achieved.
9	**Are the proposed factors reasonable?**	See comments in section 3 The MEU is of the view that the answer to the question is different between debt and equity. For debt, the practices for maximising the amount of debt and minimising its cost are common across all firms, not just regulated firms. To ensure the cost of debt is at the efficient level needs to test the allowances against the widest possible sample and to test the actual performance of each regulated firm against this backdrop. The MEU concepts are further developed in section 5. In contrast, the cost of equity reflects the specific nature of the business the firm operates in. Therefore general market practices have less relevance and should be used as a guide, and moderated by comparator firms.
10	**Are there other factors which should be considered?**	The risk involved in the cost of debt does not apply to the regulated firm but is carried by the lenders to the firm (see comments about debt in section 6 and in response to Q9).

		Excluding the cost of debt from the assessment of risk means that the risk applies only to the cost of equity and not the entire rate of return. To attempt to equate the risk in terms of rate of return will not provide an outcome which is efficient
11	**Are there characteristics that differentiate the level of risk in the gas and electricity sectors, or between distribution and transmission networks?**	There are different risks that apply, but not in the terms used in the Issues Paper. The MEU considers that the risks vary more with the market (eg is the market growing or shrinking, more or less predictable sales), the ownership (government ownership is less risky for the firm than private ownership) and the form of regulation (revenue from a revenue cap is more certain than revenue form a price cap). Assessing risk in terms of electricity or gas, transmission or distribution does not address the fundamental sources of risk faced by the regulated firms.
12	**Are there other characteristics that should be taken into account when assessing the level of risk?**	See response to Q11
13	**To the extent that different risk levels exist, can these differences be estimated in a manner consistent with the regulatory principles outlined in section 2?**	Noting that the risk associated with debt is carried by lenders and not the regulated firm, the risks for a regulated firm are addressed within the setting of the cost of equity. Assessment of the equity risks for a regulated firm needs to be benchmarked against those faced by all investors. The outworkings of the risk assessment need to be compared across the market to ensure that there is consistency (ie that firms with a higher risk receive a greater reward than those with low risk).

Overall rate of return		
14	**To date our practice has been to estimate the allowed rate of return based on the standard WACC formula. Should we continue with this, or if not, what alternative approaches should be explored?**	No. See section 6
15	**How can overall rate of return considerations be used under the new rule framework? This may include consideration of the relevance of the methodologies identified above (or others not yet identified), and how such information could be used.**	By deriving the overall rate of return in the manner suggested by the MEU should result in an outcome which is more consistent with market evidence. This does not mean that the outcome should not be tested against what is seen in the market as a whole. The MEU supports that benchmarking of the calculated rate of return is an essential step against firms in other capital intensive industries should be implemented. Financial indicators should also be examined to ensure that there is an adequate return to the firm as well as the return being demonstrably efficient
Return on equity		
16	**Are the assessment criteria presented in section 3.1 an appropriate basis for evaluating the cost of equity methodology in order to meet the allowed rate of return objective?**	See section 4 generally and section 4.2 particularly The MEU considers that the S-L CAPM has provided a reasonable outcome over a number of years. Different models might provide an outcome with greater precision but the S-L CAPM has been demonstrated over a period of time as providing a reasonable expectation. However, at the most basic, the outputs of models need to be benchmarked against reality, both in terms of repeatability and quantum before they should be

		used. Regardless of the model used, the output of the model must be tested in every decision to ensure that the output reflects real world outcomes. If there is a significant difference in total terms or in terms of financial indicators, then the AER must review why there is a difference and review inputs to identify the cause of the aberration and make appropriate adjustments to the model inputs.
17	**What overall cost of equity methodology best meets the allowed rate of return objective?**	See section 5 The MEU approach looks at return on equity uniquely and so addresses the requirements of the rate of return objective. Whist the use of the S-L CAPM on relation to the return on equity has resulted in reasonably appropriate outcomes, it does suffer from using a point estimate for one part of the calculation (risk free rate) and a long term average for another part (market risk premium) and market evidence for the third element (equity beta). The MEU has a concern that short averaging periods for the risk free rate has the potential to bias and make more volatile the returns on equity which is not the long term focus held by investors (especially founders of firms). The MEU considers that calculations for return on equity should more reflect longer averaging periods than shorter periods.
18	**What individual cost of equity model best meets the allowed rate of return objective?**	No model consistently provides accurate forecasts of the future. The S-L CAPM has provided reasonable outcomes compared to reality, and there has been no evidence provided that any other model has proven to be more consistent in its forecasts than the S-L CAPM This means that longitudinal studies are required to demonstrate if there are better models. The MEU does consider that the AER should apply to RoD and RoE annual

		analyses just as they do for other cost variable such as opex and capex. This will provide confidence (or not) in the method(s) used to forecast RoE. In this regard, it must be recognised that the actual RoE will vary over time as the return will reflect profits and losses made in other elements of the regulated firm's activities. The concept of the "bucket of money" approach and incentive regulation is that the firm has the opportunity to increase its profitability above that used to set the allowance.
19	**What other evidence (estimation methods, financial models, market data and other estimates) is relevant to the determination of the cost of equity?**	The MEU considers that over time other models will be proposed and new ones developed. However, before any of these is utilised, they must be tested longitudinally and compared to the real world outcomes.
Return on debt		
20	**What are the advantages and disadvantages of portfolio approaches compared with the current "on the day" approach to the return on debt?**	See section 6.
21	**How do these approaches align with the principles of an efficient financing benchmark, as set out in section 4.2?**	See section 6
22	**What are the characteristics of efficient and prudent financing practices that**	See section 6

	should be taken into account under a benchmark framework?	