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George Maltabarow
Managing Director

570 George Street
Sydney NSW 2000
All mail to GPO Box 4009
Sydney NSW 2001
T +61 2 9269 2112
F +61 2 9264 2982
www.ausgrid.com.au

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Mr Pierce

RE: AEMC consultation on rule changes proposed by the AER and Energy Users

Ausgrid appreciates the opportunity to provide a submission on the changes to the National Electricity Rules proposed by the Australian Energy Regulator (AER) and the Energy Users' Rule Change Committee (EUC). Ausgrid has significant concerns about the scope of the proposed changes and their impact on the fundamentals of the current framework. Whilst there may be scope for refinement of some aspects of the framework, overall we do not think there is evidence to support the scope of the proposed rule change such that the Commission could be satisfied that it would contribute to the achievement of the National Electricity Objective.

Ausgrid has provided input to the Energy Networks Association (ENA) submission on the rule change proposals and supports the submission. Ausgrid has also prepared its own submission, which outlines additional comments and issues specific to Ausgrid arising from the proposed rule changes such as the transitional arrangements proposed by the AER. Ausgrid has also attached an expert report from the Competition Economists Group (CEG), which evaluates the proposed changes to the process for determining the regulatory cost of capital.

Ausgrid is particularly concerned by the transitional arrangements the AER has proposed, which if adopted would apply to Ausgrid's upcoming 2014–19 distribution determination. The key principles here are the need for certainty and predictability in the regulatory framework and procedural fairness in the application of the rules. The AER has proposed significant changes to the decision making framework for determining capital and operating expenditure forecasts as well as the process for determining the regulated cost of capital. In our submission we outline how this introduces significant uncertainty for Ausgrid in preparing its regulatory proposal for the 2014–19 distribution determination.

The AER has proposed transitional arrangements under which a new statement on the cost of capital would apply to Ausgrid for the 2014–19 regulatory period. Under the transitional arrangements, the AER would conduct a review of cost of capital parameters outside Ausgrid's determination process. In addition to this, there would be no requirement for the AER to have persuasive evidence before departing from a previously adopted parameter where there is uncertainty about the true value/best approach. The proposed transitional arrangements provide no certainty to Ausgrid about the cost of capital that would apply for the 2009–14 determination. Moreover, under the proposed rules there would be no mechanism to depart from a parameter set through an AER statement on the cost of capital, even if there were material errors in the AER's reasoning or findings of fact.

Ausgrid notes that transitional rules applied to Ausgrid for its previous 2009–14 electricity determination. Applying transitional rules to Ausgrid's next determination is premature and reduces the certainty and stability that the current electricity rules were intended to promote.

Ausgrid looks forward to engaging with the AEMC on the range of issues arising from the AER and EUC rule change proposals. If you have any enquiries in relation to Ausgrid's submission please feel free to contact Brendon Crown on (02) 9269 3493 or at bcrown@ausgrid.com.au.

Yours sincerely



GEORGE MALTABAROW
Managing Director

Ausgrid – Submission to the AEMC on AER and Energy Users’ rule change proposals

December 2011



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1 Introduction

1.1 Ausgrid's interest in this Rule change

Ausgrid is a New South Wales (NSW) State Owned Corporation constituted under the Energy Services Corporations Act 1995. The Corporation was subject to a name change under the Energy Services Corporations Act in March 2011 and was known as EnergyAustralia up until 2 March 2011. In this document we use the term Ausgrid to refer to the Corporation that was previously known as EnergyAustralia. We hold, and operate within the requirements of, a NSW Electricity Distribution Network Service Provider Licence issued under the Electricity Supply Act 1995. Our electricity network covers 22,275 square kilometres from Waterfall, in Sydney's South, to Auburn in Western Sydney, and the upper Hunter Valley in the North. We provide around 32,000GWh of electricity to more than 3 million people and 1.63 million network connections.

Ausgrid's main business undertakings are subject to national electricity law and regulation. Our operating plans, investments and prices are under the terms of a Revenue Determination made by the Australian Energy Regulator in 2009 for the 2009 to 2014 period. Ausgrid's electricity network includes:

- A transmission and sub-transmission system of 33kV kV, 66kV and 132kV assets
- A high voltage distribution system of 5kV, 11kV and 22kV assets
- A low voltage distribution system of 415V and 240V assets

We therefore have a strong stakeholder interest in ensuring the Rules governing the economic regulation of distribution and transmission networks afford us with the opportunity to provide the services our customers require in a sustainable and cost effective manner.

1.2 Criteria for assessing proposed Rule

We note that the AEMC will be considering whether a Rule change will contribute to achieving the National Electricity Objective (NEO). Ausgrid considers that the overarching goal of network regulation is to promote prudent investment to provide a reliable, essential service at the most efficient cost.

Ausgrid supports the assessment criteria outlined by the AEMC in previous decisions concerning how network service economic regulation contributes to the NEO¹ :

- Incentives to pursue cost efficiencies
- Ensure efficient investment, long term innovation and technical progress for the benefit of the service provider and end-user
- Clarity, certainty and transparency of the regulatory framework and processes
- Minimization of the costs and risks of regulation
- Appropriate resolution of transition and implementation issues and costs

The criteria identified above have a clear focus on the predictability and certainty of the regulatory framework. Ausgrid supports these criteria as a means of assessing the respective proposals. We also support the AEMC's proposed approach to consideration of the issues as set out in its consultation paper and we have addressed our submission accordingly.

This approach also appears to be consistent with the AER's vision for a framework that meets efficiency principles:

*"The AER considers that certainty as to the framework that will apply is desirable, and supports the development of transitional arrangements for the ACT/NSW resets as a means of providing certainty for stakeholders in those resets."*²

¹ AEMC Framework & Issues Paper – 'Review into the use of TFP for the determination of prices and revenues', 12 Dec 2008, pg 8

² AER submission to MCE on draft Chapter 6 Rules, 25 May 2007, pg 13

Any change has the potential to impact upon the clarity, certainty, predictability and transparency of the framework. That means even minor amendments to the framework need to be substantiated by a clear evidentiary basis for change.

1.3 Ausgrid' position on the AER and EUC's Rule change proposals

A key focus of our submission is assessing whether there is any evidence to support changes to the current framework. The key position developed in our submission is that there is no evidence to satisfy the AEMC that a fundamental change to the electricity framework would contribute to the achievement of the NEO. In doing so, we have relied on internal analysis undertaken by Ausgrid and the extensive analysis by the Energy Networks Association (ENA).

Our submission (and that of the Energy Networks Association) acknowledges where minor changes may be justified as contributing to the achievement of the NEO. On the whole however, the AER's proposed Rule change is not minor or incremental in nature.

The proposed amendments seek to dismantle the "fit for purpose model" implemented by the AEMC in 2006 for transmission and established by the Ministerial Council on Energy (MCE) for distribution in 2007. The framework developed by Rule makers was based on extensive reviews of the optimal regulatory framework and drew on advice from the Expert Panel's report in 2006. The AEMC's proposed Rules seeks to shift the basis of a regulatory decisions away from the regulatory proposal put forward by network service providers and instead base the decisions on the regulator's own view of appropriate costs and expenditure.

In the following sections we identify the key problem raised by the AER, and examine the issue in the context of recent reviews of the regulatory framework. We then examine the characteristics and outcomes of the current framework.

1.4 The problem as identified by the AER

The key contention of the AER is that the current framework has resulted in higher prices for the customer than is necessary to meet the NEO. We note that there is little, if any evidence substantiating the link between:

- the AER's observations of recent price increases; and
- the AER's conclusions that they are the result of the AEMC inappropriately shifting the balance in favour of NSPs.

It is difficult to draw any definitive conclusions on the current framework given that only 2 years have elapsed since the first determination was made under it. We consider there is no evidence to support the AER's view that due to the restrictive nature of the current rules, "consumers are paying more than the efficient cost required to maintain a reliable and secure power system."³ In this respect, we note that the AER's decisions in recent regulatory decisions do not suggest that the AER has been restricted in making its regulatory decisions. For example, the AER has stated:

"The AER's analysis confirms the need for, and efficiency of, an increased investment allowance, cognisant that this increased investment will result in higher user charges."⁴

"The AER has substantially reduced the expenditure proposed by Ergon Energy to ensure that only prudent and efficient costs would be recovered from customers"⁵

"While South Australian consumers will face higher charges as a result of the decision, they will also benefit from a more reliable network,"⁶

"The AER is satisfied that the additional expenditure is necessary for Powerlink to respond to the strong growth in forecast electricity demand by both residential and industrial customers, and to replace ageing network assets."⁷

³ AER Rule change proposal

⁴ NSW determination, April 2009

⁵ Ergon determination, May 2010

⁶ ElectraNet determination, April 2008

⁷ Powerlink determination, June 2007

Before examining the characteristics and outcomes of the current framework, we examine the reasons why the framework was implemented by the AEMC and the MCE.

1.5 The impact of prior frameworks on recent regulatory decisions

A number of reviews were held in the mid-2000s that supported a movement towards more codified regulatory frameworks with a focus on economic efficiency. These included:

- Prime Minister's Export Infrastructure Taskforce 2005
- Productivity Commission review of the National Access Regime 2001
- Productivity Commission review of the Gas Access Regime 2004
- MCE Expert Panel Review on Energy Access Pricing 2006

Other energy market reviews including, the Expert Panel on energy access pricing and AEMC's market review of revenue regulation for transmission networks were also commissioned. These reviews detailed concerns regarding governance arrangements, conflicting regulatory objectives and ambiguous decision making frameworks.

The current framework was largely established based on recommendations strongly advocated by the ACCC and the AER. The need for this fundamental change to economic regulation (which led to the current framework) was strongly driven by the lack of transparent and credible decision making from former jurisdictional regulatory bodies. As such, Ausgrid believes that the AER is seeking to respond to issues which do not arise from deficiencies in the current framework, but which are the inevitable consequence of efforts to correct the failings of the previous regulatory regimes.

The changes in price over this period are a reflection of the poor regulatory decisions in the past which produced artificially lowered prices compared to costs. Ausgrid stated this when submitting its regulatory proposal in June 2008:

"The result of this past distribution regulatory regime is that pricing has not kept pace with both capital and operating expenditure requirements....a price adjustment of 18.6% is necessary just to rectify the legacy of previous regulatory decisions".⁸

This view was supported by AER Chairman Andrew Reeves as recently as 11 May 2011 who stated that "In some ways, we've been living off the investment of the past....what's now happened, and the conjunction of timing, is we're looking at both the replacement of assets as well as meeting higher demand coming in at the same time."⁹

The AER's proposed changes are essentially to increase their discretionary powers to determine and substitute expenditure forecasts and set inflexible WACC parameters every five years. This signifies a return to the unguided regulation of the past where regulators lacked accountability, prioritised prices over the long term interests of consumers and delivered under investment. Below are some examples of the effects of unguided regulation specific to Ausgrid:

- In 2004-05 IPART reset prices for Ausgrid using a constant price escalator for the years one to four of the period. IPART smoothed the price impact in the early years of the regulatory period, but failed to adhere to the principle of providing a discount rate compensation in the latter years, thereby lowering prices in NPV terms below what was calculated in the building blocks.
- Previous to the 2004-05 determination, IPART responded to rising peak demand and energy usage due to increased air conditioner penetration, by reducing prices in forward years without allowing any recovery for needed increases in investment during the period. This led the regulator to conclude "over the past seven years, average electricity network prices have reduced in real terms by 24 per cent, while average demand or energy consumption has risen by 31 per cent... Peak demand has risen even more sharply, placing strain on the existing infrastructure."¹⁰

⁸ EnergyAustralia Regulatory Proposal, June 2008, pg 3.

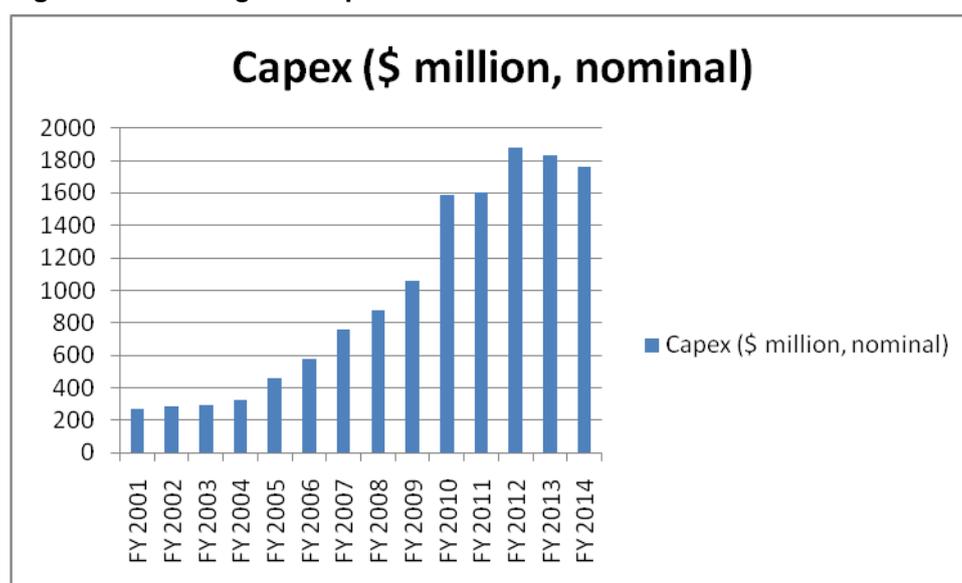
⁹ Australian Financial Review "States blamed for power price surge", 11 May 2011.

¹⁰ IPART "NSW Electricity Distribution Pricing 2004/05 to 2008/09 Final Report", 10 June 2004, Forward

- In 2004-05 the ACCC made a separate determination on our transmission network. The determination was late as the ACCC decided to change the basis on which it assessed capital and operating expenditure and the incentives under its form of regulation. This required significant rework of our original proposal.
- The ACCC effectively stepped into the role of asset manager when it determined that no funding would be provided to replace a particular type of circuit breakers as this was unnecessary before 2009. Shortly after this a circuit breaker on a critical link between the high voltage networks in Sydney's north and south failed, creating an explosion which scattered debris across the switchyard. Ausgrid immediately issued an emergency replacement of the assets of a similar type but was not funded for this investment during the period.

To provide the AEMC with an understanding of the level of under-investment in previous periods, we note that Ausgrid valued the costs of replacing our network in 2008 at \$30 to \$35 billion¹¹. The graph below demonstrates that the level of investment in the network between 2000 and 2006 was significantly below what would be reasonably expected to sustain the reliability of the network.¹²

Figure 1: Ausgrid's capex between FY 2000 and FY 2014¹³



As evident in the graph above, despite the short term price benefit to customers there was significant under investment that is now being addressed. In summer 2005, there were 108 front line sections of 11kV cables or feeders that were overloaded in Sydney and the Central Coast.¹⁴ In 2006, the average age of our substation equipment was 35 years and for underground cables it was 41 years.

Ausgrid was, and is, very supportive of government reforms aimed at improving regulation for long term consumer interests. The current framework balances the needs of the Regulator and businesses and addresses the false economy created by the previous regulatory regime. It is our view that the current framework is not producing inflated forecasts and artificially high prices.

1.6 Characteristics of the current framework

The current framework increases the accountability of the regulated business by requiring it to provide all information necessary to allow the AER to make a determination and establishes guidance for the AER in how it makes decisions in respect of the information provided.

¹¹ Ausgrid, Regulatory proposal, June 2008, p3

¹² Assuming an average asset age of 50 years, and an even replacement of assets over time, Ausgrid would need to invest \$700 million a year to sustain the network.

¹³ Based on actual capex between 2001FY and 2006FY, and forecasts of expenditure in the 2008 regulatory proposal. The source of this information is the RIN submitted to the AER in our June 2008 regulatory proposal.

¹⁴ Note, these numbers do not include Newcastle.

A key characteristic of the current framework is the increase in powers for the AER to request and obtain information in order to address issues of information asymmetry. The powers of the regulator were significantly increased in legislation to allow unprecedented access to business information. This includes powers for the AER to request information be provided or maintained in the form it desired by the AER.¹⁵

There are powerful incentives placed on the business to provide information to the regulator. The AER has powers to make adverse assumptions where information has not been provided or is not sufficient¹⁶. The business may lose rights to merits review of decisions where information requests have not been complied with.¹⁷

In respect of capital and operating expenditure, there is an onus and incentive placed on the regulated business to provide all the information to *satisfy* the regulator that the forecasts meet the expenditure criteria. The onus on the network business to provide appropriate information has been highlighted in recent Tribunal decisions:

*The Tribunal accepts that Ergon Energy had the prime responsibility to provide information to the AER for the AER to consider and evaluate. Ergon Energy had a critical role to play in providing information to the AER to assist the AER in making a distribution determination which reflects that national electricity objective and the revenue and pricing principles. Having failed to do so adequately in relation to other costs, we cannot characterise the AER's decision in relation to other costs as unreasonable. Nevertheless, as indicated above, the AER, in the circumstances of this case, should have made further enquiry from Ergon Energy.*¹⁸

These unprecedented powers to request information are balanced by the need for the AER to make decisions in respect of the information provided (including the information requested). The AER may be dissatisfied with the information or may make adverse assumptions where the information is not provided or is not sufficient. While it is not open for the AER to ignore the information provided and make its own arbitrary decision, there is nevertheless ample flexibility for the AER to make evaluations in respect of the forecasts. Regulatory error does occur. However unlike previous frameworks, the current framework allows such matters to be reviewed by an independent Tribunal.

1.7 Outcomes of the current framework

While it may be premature to effectively analyse the efficacy of the current framework, on the available evidence Ausgrid submits that the framework is delivering the outcomes it set out to do:

- In 2005, 108 front line sections of 11kV feeders were overloaded in Ausgrid's Sydney and Central Coast area, that number has now dropped to 44.¹⁹
- The average number of 'blackouts' from equipment failure has been cut by approximately 12 per cent between 2003/04 and 2010/11
- The average number of 'blackouts' caused by rural power lines has fallen by approximately 50 per cent

This necessary expenditure has been represented by some stakeholders and commentators as 'gold-plating' of the network. Ausgrid categorically refutes this assertion. Much of the investment in this period represents a catch-up of under investment in previous periods. For example, in this regulatory period and the next, significant investment is still required to replace high voltage sub-transmission oil and gas filled cables feeding in to the Sydney CBD. If this essential expenditure is deferred to artificially lower prices, there would be a significant risk of failure of key feeders into the CBD and nearby inner suburbs.

The evidence supports a considerable improvement in the quality of business proposals and the quality of decision making from the AER under the current framework. By way of illustration, the AER's draft

¹⁵ Division 4 of Part 3 of the National Electricity Law

¹⁶ Section 28Q of the National Electricity Law

¹⁷ Section 71H of the National Electricity Law.

¹⁸ Australian Competition Tribunal, Application by Ergon Energy Corporation Limited [2010] ACompT 6, para 49-50.

¹⁹ Note, this number excludes Newcastle. Furthermore this number is only in relation to the first section of the cable closest to the substation. It is almost certain that there were other sections of cable that were operating above their capacity. Consequently, the number of 11kv feeders for Sydney and Central Coast overloaded in 2005 is actually higher than what has been represented in this paper.

determination for NSW distributors contained 42 pages of analysis of Ausgrid's replacement requirements compared to 10 pages each in the IPART and ACCC draft determinations in 2004-05 respectively. In our view, the level of rigorous analysis is required to make assessments of significant capital proposals.

The substantial improvement in the quality of decisions has been driven by an appropriately codified regulatory framework, a more impartial and economically focused regulatory body and accountability in decision making that the regulator faces.

1.8 Outline of our response

Ausgrid's response to the AEMC's consultation on the AER Rule change has taken into account the issues raised in the AEMC's consultation paper. Ausgrid has also assisted with the ENA submission and support the ENA's response to this Rule change. We have sought to provide further evidence to support and emphasise issues raised in the ENA's submission. Our response also highlights issues directly affecting Ausgrid, particularly in respect of the co-incident with this Rule change and Ausgrid's preparation for the 2014-19 regulatory control period.

We summarise the issues specific to Ausgrid in our next chapter. In particular we address the AER's proposed transitional arrangements that would apply to NSW and ACT network businesses.

The following chapters categorise the AER's proposed changes into the following categories:

- Decision making framework
- Weighted average cost of capital
- Regulatory incentives
- Regulatory decision making process

2 Issues Particular to Ausgrid

2.1 Ausgrid's experience with changes to previous frameworks

Ausgrid has been subject to changing regulatory arrangements in the lead up to the last two regulatory proposal periods. This imposes significant burden and costs on service providers and creates an environment of uncertainty and instability that is counter-productive for an industry characterised by substantial, long term investments.

As noted above, in 2004-05 the ACCC made a separate determination on our transmission network. The determination was late as the ACCC decided to change the basis on which it assessed capital and operating expenditure and the incentives under its form of regulation. This required significant rework of our original proposal.

In 2008, Ausgrid submitted its regulatory proposal under transitional rule arrangements that were only finalised late in 2007. If there was sufficient time to assess the rules that were to apply to us, we would have planned our proposal differently. Instead, our capital planning processes and documentation were prepared under considerable uncertainty as to what rules would apply to the assessment of our proposal.

In neither process was sufficient consideration given up front for the impact of changes on the NSP's (Network Service Providers) preparation of its regulatory proposal. In respect of the most recent changes to the regulatory framework, Rule makers appeared intent on establishing frameworks in time for application for the 2009-2014 NSW/ACT reset. Inevitably, the complexity of the issues faced extended timetables beyond what was planned, resulting in considerable transitional arrangements being established at the eleventh hour.

We note that the AER expects that its amendments to the Rules will apply to Ausgrid and other NSW and ACT NSPs as part of the AER's determination in 2014-19. However, the AER expects that transitional arrangements will only need to apply to the following areas:

- The framework and approach paper consultation process
- The decision on WACC
- New Rules around incentives for capital expenditure

With the exception of WACC (it is not clear what the AER's rationale or process is surrounding transitional arrangements for WACC) we would support these changes proposed but would also argue that the transitional arrangements do not go far enough.

We argue in the previous chapter that even minor changes to Rules have a significant impact on the clarity, certainty and transparency of the Rules framework. In our view changes should not apply unless it can be demonstrated that they do not disadvantage Ausgrid (and the other NSPs in the same position) in the preparation of its 2014-19 regulatory proposal.

A key principle of procedural fairness is the ability of the regulated business to understand and have full visibility of the Rules under which its proposal will be assessed. The key risk from a change in the Rules is that Ausgrid will not be able to provide essential programs because there was insufficient time to develop a robust proposal which complies with the new framework.

Where we are not provided the opportunity to prepare our best possible "case" to the regulator, because the rules regarding how our proposal will be assessed have changed, we are obviously disadvantaged compared to a scenario where an NSP has full visibility and clarity around the framework that applies to them. In our view, the regulatory framework should provide each NSP with an equal ability to develop a robust proposal.

It is relevant to note that the long timeframes required to prepare a regulatory proposal has required Ausgrid to commence preparing its regulatory proposal. Our planning processes are directed at meeting the compliance obligations in the Rules and developing documentation that addresses the current Rules criteria. This means that the Rule change assessment will be undertaken in parallel to our planning processes.

2.2 Why our planning process are impacted by this proposal

To give a better understanding of how the proposed changes would affect the preparation of our proposal, Ausgrid has provided further information on how we address the Rules requirements as part of our planning processes.

Ausgrid commenced planning of our regulatory proposal in June 2011, two years prior to the submission of our regulatory proposal. Early preparation is required for two reasons. Firstly, the Framework and Approach process requires Ausgrid to develop positions on classification of services, dual function assets, form of regulation, and application of incentives well in advance of the submission of the regulatory proposal. Secondly, there are significant lead times in developing well substantiated capital and expenditure forecasts.

In this respect, we note that Ausgrid undertakes bottom up analysis on the condition of all of its network assets in preparation of the proposal, and undertakes extensive strategic planning to develop optimal requirements for its sub-transmission network.

Our planning processes commenced in 2011 with an examination of how our forecasting processes could better align to the expenditure objectives, criteria and factors in the Rules. Ausgrid then developed the regulatory requirements for establishing a compliant and credible proposal, taking into account the current Rules and recent AER determinations. These requirements were finalised in the third quarter of this year.

From there, Ausgrid developed methodologies for forecasting capital requirements for each relevant forecast. A key principle in the establishment of methodologies was that the forecast must align to the Rules requirements. Indeed Ausgrid's business as usual planning processes consider the timing of regulatory proposals when developing review periods such that the data and analysis is current.

Ausgrid is now finalising its planning stage focusing on the tasks and resources required to develop capital estimates that relate to the methodologies identified. This involves extensive data interrogation and investigation.

2.3 What elements of the Rule changes (if made) should not apply to Ausgrid

It is unclear at this stage what, if any changes will be made to the framework as a result of the current AER proposals. What we do know is that we are unable to put our planning processes on hold until the rule change is finalised. If our planning processes would have been different with the foresight of any new Rule, and that Rule applies to Ausgrid, we believe that we have not been given clarity, certainty and transparency with regard to the framework that applies and are disadvantaged compared to other NSPs who have full foresight of the Rules that they are planning towards.

We are not suggesting that a rule change should not apply to Ausgrid between regulatory periods, but rather that we be provided with adequate time to prepare our proposal under a new regulatory framework. In this respect we note that our planning processes are less influenced by some of the Rule changes put forward by the AER. These include:

- Capex reopener (for Ausgrid, the threshold for this expenditure is too high to affect our planning processes)
- Submissions on regulatory proposals
- Restriction on considering confidential information
- Ability to amend a determination
- Extension of time for WACC review and pass through
- Treatment of related parties and capitalisation policy
- Pass through threshold

Nevertheless, there are aspects of this Rule change that would prejudice Ausgrid if they were to apply for the 2014-19 reset. These include:

- Decision Making Frameworks
- WACC and DRP
- Incentive arrangements
- Contingent Projects
- Framework and Approach Paper issues

The remaining chapters of our response highlights why we believe some changes to the rules will prejudice our regulatory proposal process. We have outlined our reasons in the “Issues specific to Ausgrid” in each chapter.

3 Decision Making Framework

3.1 Rule changes covered in this section

In this section, we wish to discuss proposed changes to the assessment of capital and operating expenditure forecasts.

3.2 Issues specific to Ausgrid

We noted in our previous chapter that Ausgrid is concerned that any substantive change to the rules applying to the 2014-19 regulatory determination process of NSW and ACT distributors could prejudice their preparation of regulatory proposals for that process. For this reason, we consider that any changes to the Rules which could impact on the preparation of our regulatory proposal should not apply to the upcoming regulatory determinations of NSW and ACT distributors.

The AEMC will therefore need to consider carefully the co-occurrence of this rule change process to our current preparations for our June 2012 Framework and Approach consultation process and our May 2013 regulatory proposal. We believe it is important to take into account these issues to ensure clarity, certainty and transparency in the framework

We are not sure what, if any changes will be made to the decision making framework as a result of this process, and are unlikely to know the final impact until October 2012. However, framework changes along the lines proposed by the AER would impact how we prepare our proposal. For example, under the AER's approach, there would no longer be a need for the AER to be satisfied as to the prudence and efficiency of the NSP's proposal. Nor would it be necessary for the AER to take into account the specific circumstances of the NSP and several other factors currently in the Rules.

Currently, the Rules incentivise Ausgrid to devote considerable resources to developing a well substantiated estimate based on engineering analysis, such that the AER has been provided with sufficient information to be satisfied with the forecast.

If Ausgrid knew in advance of its planning processes that the Rules promoted greater use of top down models and benchmarking, Ausgrid would need to transfer resources away from substantiating and completing engineering analysis and devote additional attention to:

- Undertaking extensive benchmarking analysis to demonstrate that our expected costs are reasonable compared to comparator firms. Our focus would be on identifying a comparator firm, or on normalising data to address the inherent limitations with benchmarking.
- Understanding the operation of the AER's repex model, and making recommendations to the AER on how the model could be improved to develop more credible results.

This type of alteration to our planning processes would disadvantage Ausgrid relative to other NSPs who would have significantly more time to align the Rules framework to the planning processes. Further, adjusting to the new Rules framework so late in the process could result in potential inadvertent errors and inconsistencies. As noted in our previous chapter, we would strongly advocate transitional arrangements for Ausgrid that would not prejudice our forecasting process.

3.3 Issues specific to the operation of the Rule

Ausgrid has directed its submission at addressing the questions posed by the AEMC's discussion paper. In this respect we direct the AEMC to the submissions made by the ENA. Ausgrid has sought to supplement the ENA's views by providing the AEMC with additional information.

3.3.1 The problem identified by the AER

The AER contends that the key reason for amending its decision making powers in the Rules is that the current provisions result in higher expenditure allowances (and consequently higher prices for the customer) than is necessary to meet the NEO.

There is no evidentiary basis for this contention. The ENA's submission responds to the AER's perceived problems in the current framework. We support the ENA's arguments.

Ausgrid acknowledges that large price increases have a significant impact on the welfare of customers, and that it is therefore important to understand the nature of price increases. However, in our view, the increase in prices felt by customers is a consequence of price-focused regulation in the past, and the need for large or lumpy investment programs now to compensate for inadequate allowances in the past.

The current regulatory framework was a means of addressing the issues of legacy regulatory arrangements which provided inefficient incentives to invest. Distribution Network Service Providers (DNSPs) now have an onus of proof to submit evidence in support of expenditure forecasts and to provide all information required by the AER. In turn, the AER is required to test the information submitted by the DNSP and to form a view as to whether the information submitted satisfies the Rule criteria of efficient and prudent forecasts.

In the sections below, we expand upon the arguments raised by ENA by referring to our specific experiences at the time of the 2009-14 regulatory determination process. We also focus on the AER's reasoning for removing provisions which require the AER to take into account the individual circumstances of the DNSP.

3.3.1.1 The AER's claim that the framework systematically inflates forecasts

Ausgrid agrees with the ENA's submission and supporting analysis in the experts' report. We agree that the AER has all the powers to obtain any information it needs and ample opportunity to interrogate the efficiency and prudence of proposed expenditure. The ENA notes the AER's substituted expenditure forecasts have been up to 30% below those proposed by the NSPs.

In respect of our experiences, we note that our 2008 regulatory proposal did not apply a reasonable range methodology to determine forecasts. We sought to identify the best estimate forecast of costs and demand based on current information. We also note that the AER's assessment process did not involve identifying a range of reasonable costs or demand forecasts as inferred by the AER in its reasoning for a Rule change.

3.3.1.2 The AER's claim that it is only able to substitute a forecast back to the top of a range

Ausgrid generally agrees with ENA submission and supporting analysis in the experts' report. Ausgrid agrees with the ENA's assessment that there is no substantive case for any changes to clause 6.12.3(f) and submits that the AEMC should very carefully consider the reasons for the current drafting before contemplating any change.

The AER's Rule change states that:

"This problem is further compounded for DNSPs due to two further restrictions on the AER's discretion under chapter 6. Under chapter 6, if the AER considers a forecast proposed by a DNSP is too high, it can only amend the proposed forecast to the minimum extent necessary for it to be approved under the rules."

In addition any substitute forecast determined by the AER must be based on the original proposal."

The AEMC should treat such statements with caution. In fact, we would direct the AEMC to the actual drafting of the clause 6.12.3(f)(2) which does not contain the word minimum, nor does subclause (1) refer to the original proposal²⁰.

The drafting of Chapter 6 of the Rules states that the AER's obligation is to amend "only to the extent necessary to enable it to be approved in accordance with the Rules". The Rules make no reference to the "minimum extent" necessary as interpreted by the AER.

It is not apparent whether this mis-description has influenced the problem as articulated by the AER.²¹ In any case, the problems articulated by the AER in its Rule change are not borne out in the evidence of available determinations and Tribunal decisions. Once these two issues are discounted, the difference in drafting

²⁰ This misdescription is partially repeated on page 27 at section 6.2.2 which again refers to the original proposal.

²¹ the AEMC may want to consider whether the AER may have prepared its rule change under a misapprehension as to the wording of clause 6.12.3(f).

between transmission and distribution clauses appears negligible which is supported by the ENA's analysis that the outcomes under the Chapter 6 and 6A are effectively the same.

There is no evidence supporting the proposition that AER's substitute amounts are forced into the top of a range of possible forecasts. Equally there is no evidence that the AER produces a range of forecasts and chooses a singular point within that range. For instance, the AER rejected two elements of Ausgrid's regulatory proposal for operating expenditure. In each case, the AER's decision was to substitute an alternative amount that it was satisfied reflected an efficient and prudent forecast. There was no mention in our determination of:

- A possible range of outcomes
- That our forecast was outside a possible range of outcomes
- That the AER was compelled to reduce the forecast to the top of the range of forecast outcomes.

Instead the AER determined an amount it was satisfied was prudent and efficient, having not been satisfied as to the efficiency and prudence of Ausgrid's forecast.

*"The AER considered that EnergyAustralia's proposed forecast total opex allowance of \$3047 million (\$2008–09) did not reasonably reflect the opex criteria in the transitional chapter 6 rules. The AER applied a reduction of \$410 million (\$2008–09) or approximately 13 per cent to EnergyAustralia's proposed opex forecast and approved an allowance of \$2638 million (\$2008–09)."*²²

Further, the Tribunal found in favour of the AER in these instances. The Tribunal's reasoning in each of these cases is described below. In respect of step changes, the AER substituted a value of zero on the basis that Ausgrid did not provide material on the expected efficiencies to be derived from IT investments. Upon review of the AER's decision, the Australian Competition Tribunal commented that:

*"EnergyAustralia (Ausgrid) is far better placed than the AER to undertake the exercise required to quantify the efficiency gains or to arrive at judgments about any percentage reduction for inferred savings. Because EA failed to undertake that exercise, the AER was simply unable to determine a substitute amount on the basis of a current regulatory proposal. The Tribunal is satisfied that the AER complied with cl 6.12.3(f)(2), assuming it applies to this decision making process."*²³

In respect of maintenance costs, the AER used a midpoint between Ausgrid's estimates of the efficient maintenance costs and a value derived from its consultant's benchmark analysis. The Tribunal noted in this instance that:

"The Tribunal is also satisfied that the selection of a mid-point in the two assessments of EA's maintenance costs is consistent with cl 6.12.2 and 6.12.3(f). In response to EA's submission that the mid-point is 'arbitrary', the AER submits, correctly, that:

(a) it is more accurate to describe the mid-point as an 'approximation' which is common to the outcome of all models; and

*(b) it is a reasonable approximation because it draws on the outcomes of both models to achieve a reasoned outcome."*²⁴

3.3.1.3 The AER's claim that it must undertake a line by line assessment to reduce expenditure

The AER contends that clause 6.12.3(f) inappropriately restricts its discretion with respect to substituting capex and opex forecasts by forcing it into a line by line analysis of DNSP proposals and precluding it from applying top down techniques such as benchmarking.

We support the analysis in the ENA submission demonstrating that the clause has not been interpreted this way by the AER or the Tribunal.

²² AER, Final Decision NSW Distribution Determination 2009/10 to 2013/14, 28 April 2009.

²³ Australian Competition Tribunal, Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8, 12 November 2009.

²⁴ Australian Competition Tribunal, Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8, 12 November 2009.

A key example was the AER's rejection of Ausgrid's increase in demand management (an additional \$8 million) on the basis that the proposed cost did not meet the criteria of an acceptable step change. Had the AER conducted a line by line assessment, it would have found that Ausgrid had provided substantial documentation in support of the increase in demand management expenditure including an estimated capital deferral of \$30 million in the period.

The merits review decisions made by the Tribunal have demonstrated that the AER's obligations to undertake a line by line assessment is dependent on the context of the decision. As noted above, the Tribunal found that the AER was correct in ascribing a value of zero to Ausgrid's step changes where the DNSP had not provided supplementary information to enable the AER to make a substitute. So in this particular circumstance, the Tribunal found that there was not sufficient information in Ausgrid's current proposal upon which to make a substitution for a number of step changes, so the AER was entitled to substitute zero.

However if the information is deficient or the methodology underpinning the forecast is reasonably rejected by the AER, then the AER's discretion to substitute is not confined by the proposal.

The Tribunal's ruling in relation to whether the AER was bound by Ausgrid's methodology for determining maintenance costs makes it clear that the AER can depart from the proposal where appropriate:

"The primary discretion given to the AER by cl. 6.123(a) is to refuse to accept or approve any element of a regulatory proposal. The AER's power to substitute an amount or value or methodology exists so that it may properly perform its obligation under cl 6.121(4)(ii) to set an estimate of the total opex that the AER is satisfied reasonably reflects the opex criteria. Once the basis of EA's approach to the assessment of maintenance costs is rejected as above, then the approach undertaken by the AER is an appropriate way to proceed. No other "amendment" to the "extent necessary" to be approved in accordance with the Transitional rules is appropriate or possible in keeping with the primary purpose of the Transitional Rules."²⁵

In other cases, the AER has been required by the Tribunal to undertake a line by line assessment. For example, in the case of Ergon, the Tribunal found that the AER should have substituted the property costs with information contained in the DNSPs proposal, as noted below:

The business case analyses for the Townsville and Rockhampton sites that Ergon Energy submitted with its Revised Regulatory Proposal did consider a business-as-usual scenario as an alternative means of "address[ing] the identified problem" at each site.

The AER submitted that it would have exercised its discretion correctly in the Final Determination if it had allowed the capex associated with Ergon Energy's business-as-usual proposals for the Townsville and Rockhampton sites."²⁶

Therefore, the Tribunal applied a common sense approach to the requirement that the substitution be on the "basis of the current regulatory proposal". The Tribunal effectively held that the obligation upon the AER to make its substitution on the basis of information in the current regulatory proposal meant that the onus was on the DNSP to provide sufficient information in the proposal to determine a substitute value that was based on the current regulatory proposal.

3.3.1.4 Individual circumstances of the business

The AER has proposed removing the term "the costs that a prudent operator in the circumstances of the relevant DNSP would require to achieve the capital (operating) expenditure objectives" from the expenditure criteria. The proposed Rule refers to the "efficient costs that a prudent DNSP would require to achieve the capital (operating) expenditure objectives. The AER has explained its reasoning as follows:

"... it is proposed to delete the criteria relating to the circumstances of the relevant NSP. Good benchmarking practice requires that the characteristics of the individual network be taken into account in the normalisation of the data, including matters such as network topography. However, this is different to taking into account the circumstances of the

²⁵ Australian Competition Tribunal, Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8, 12 November 2009 at para 256

²⁶ Australian Competition Tribunal, Application by Ergon Energy (Non-System property capital expenditure), 24 December 2010, see specifically para 32 to 35.

individual owner of the network. The imprecise language used in the current rules may limit the AER's ability to apply comparative analysis and benchmarking in identifying efficient costs.”²⁷

Ausgrid considers that the provision is a vital part of the framework directed at ensuring that each DNSP is provided with efficient investment and expenditure allowances. DNSPs are subject to a range of different obligations and circumstances that drive efficient expenditure decisions that are prudent in the circumstances of the DNSP. For example:

- DNSPs are subject to different jurisdictional obligations in terms of reliability, customer contestability and customer compensation regimes. For example, Ausgrid has an N-2 planning requirement for the Sydney CBD.
- DNSPs operate in different topographic regions. For example, Queensland DNSPs are subject to higher rates of vegetation growth than southern counterparts as a result of climatic differences which will have consequential impacts on vegetation management costs. DNSPs have vastly different network configurations, for instance Ausgrid has a transmission network.

We consider that the AER is more concerned about the precision of the language rather than the principle established by the provision. Our concern is that the AER's proposed Rule would not place a positive requirement on the AER to take individual circumstances such as that described above into account when assessing the efficient and prudent costs of a DNSP.

3.3.2 The balance between discretion and prescription

Ausgrid agrees with the position of the ENA that that the current Rules provide appropriate balance between prescription and discretion.

We note that the AEMC has previously established principles on the balance between prescription and discretion. In its draft decision on the 2006 Rule change for economic regulation of transmission services, the AEMC noted:²⁸

“There are at least three reasons why good regulatory design involves rules which provide guidance or criteria for the exercise of discretion. Firstly, if discretion is unguided there is uncertainty about how it will be exercised. This increases the risks for investors associated with the future exercise of regulatory decision-making.

Secondly, if discretion is unguided it may be applied very differently in different cases even where the underlying circumstances of the regulated business and business environment are relevantly the same. In these circumstances regulatory decision making can appear arbitrary, bringing the regulatory regime into disrepute.

The third reason why rules may appropriately contain guidance for the exercise of regulatory discretion is that regulation and regulators are not infallible. If regulators have unguided discretion in the context of making decisions about the economic regulation of a business, they may adopt interpretations or deliver outcomes that are not reasonably within the scope of a balanced approach to regulation.”

Our view is that the current framework strikes a reasonable balance, and if anything, places the balance too much in favour of the AER.²⁹ In the sections below, Ausgrid discusses three aspects of the AER's decision making under the current Rules framework.

3.3.2.1 Removing the requirement for the AER to have regard to the proposal

We note that the AER's proposed Rule seeks to remove the prescription in the current Rules for the AER to make a decision on the basis of a DNSP's regulatory proposal, and to have regard to the information included in or accompanying the proposal when making this decision.

Ausgrid supports the views of the ENA that the AER's proposed changes would lead to sub-optimal regulatory outcomes. It is clear that the NSP is in the best position to forecast requirements. A DNSP has the engineering

²⁷ AER, Proposal to amend the National Electricity Rules, September 2011, p33

²⁸ AEMC, Draft decision – Economic regulation of transmission services, July 2006, p41

²⁹ We have noted in this submission that the AER was free to substitute amounts to zero or apply its own midpoint of forecasts for operating expenditure after rejecting our proposal. These decisions were upheld in the Tribunal.

and commercial expertise to forecast its requirements to manage network assets. In contrast, under the proposed Rules, the AER would have discretion to give more weight to its own high level models to determine expenditure requirements.

These models are not based on careful engineering assessments but rather simplified assumptions. While these models may be effective in providing a check on the veracity of a DNSP's assessments and to prompt further investigation, the simplistic nature of the model can lead to anomalous results in comparison to a methodical and robust engineering assessment.

To illustrate this point, Ausgrid has provided an example below which compares Ausgrid's process in developing bottom up expenditure requirements relative to the AER's repex model.

Ausgrid's forecast requirements are based on expert engineering analysis of individual assets on the network. Ausgrid uses an internationally 'best practice'³⁰ approach to determining replacement requirements based on an examination of failure modes and criticality analysis. This involves undertaking a thorough and methodical risk assessment on over 150 asset equipment types to determine assets that require replacement over a 20 year period, Ausgrid supplements this analysis with physical condition assessments to prioritise the assets. We subsequently developed substantive documentation for each replacement programme.

It should be noted that while this process is used to justify expenditure for the purposes of the regulatory proposal, it is also an integral part of our 'business as usual' planning process as prudent and expert asset managers. These programs generally seek to proactively replace the risky assets prior to asset failure where the risks posed to the network, staff and community are considered unacceptable.

We are therefore highly concerned that the AER consider that this type of evidence based approach should be disregarded for the purpose of forecasting requirements. In our view, the information submitted to the regulator is in a form that enables the AER and its engineering consultant to provide an informed and evidence based assessment of the forecast requirement.

Under the AER's proposed Rule, the regulator would not be required to assess the veracity of the bottom up engineering information submitted by the DNSP. Rather, the AER would have discretion to apply top down models as a basis for determining expenditure forecasts. In this respect, we agree with the comments made by the ENA that the proposed Rule would not meet the NEO as the AER does not have the necessary expertise or information to independently determine replacement requirements.

For example, the AER has indicated that it is precluded from using high level approaches such as the repex model to determine expenditure requirements. The model predicts the level of expenditure based on the age of assets on the network, the typical age that the DNSP has previously replaced assets, and the unit costs of the asset.

While the model could be effectively used as a top down check on the veracity of a bottom up forecast and as a prompt for further investigation, the model has severe limitations that do not enable an accurate forecast of requirements. Ausgrid has previously raised concerns about the AER using the model as the sole basis for determining replacement forecasts. We consider that the model cannot predict forecast requirements correctly for a number of reasons:

- There is an inherent limitation developing a top down model that solely uses age as a proxy for condition. Ausgrid's asset management programs focus on identifying the condition of assets, rather than replacing assets solely as a result of standard life or in reference to the retirement age of similar assets.
- Some replacement is a result of an obligation to comply with new legislative obligations concerning safety and reliability of electrical equipment, for instance legislation relating to asbestos, and cannot be predicted by age alone.

³⁰ Ausgrid has also received a Gold level award for Asset Management Excellence from the Asset Management Council in 2009. This award provides evaluation and recognition of asset management capability excellence through measurement of an organisation's approach, maturity, performance and continuous improvement in seven specified asset management criteria. In addition, AMCL (Asset Management Consulting Limited, UK) recently undertook an assessment of Ausgrid's Asset Management capability Draft findings of this assessment indicate that Ausgrid exceeded industry-best results in 26 of the 39 defined capabilities, meaning that Ausgrid's capability maturity compares favourably with the 'best of the best'.

- Data on the average age at which assets were replaced in the past assumes that historical replacement has been efficient and prudent. Due to low replacement budgets in the past, distributors such as Ausgrid have prolonged the life of assets on the network beyond the optimal point. Therefore, average age of replacement is likely to reflect low replacement investment in previous periods rather than the optimal time to replace assets.
- Unit costs will vary with the type of asset being replaced and the location of the asset. For instance, historical expenditure may have been focussed on low value assets in non-CBD areas. The driver of replacement capex in the next period may be based on high value assets in the CBD area. Further, Ausgrid develops projects that address multiple drivers such as replacement and capacity, and in these cases the unit costs will be higher for replacement, but will result in a lower long term costs to customers. The model cannot adequately cater for these circumstances.

3.3.2.2 The level of prescription in AER's assessment process

Under the current regime, the DNSP has the onus of proof in satisfying the regulator that the proposed expenditure meets the criteria in the Rules, taking into account a diverse range of factors. The AER is guided by the Rules in deciding whether it is 'satisfied' that the forecast reasonably reflects the expenditure criteria. In undertaking its assessment, the AER has strong powers and discretions:

The Law provides the AER with strong information powers to compel a DNSP to provide information in the form required by the AER. In this regard, the AER has issued regulatory information notices under the Law which require the DNSP to submit information in the form and manner required by the notice.

The Rules require the AER to consider a full spectrum of factors including benchmarking and previous actual expenditure. In the AER's final decision for Victorian DNSPs, the AER stated that:

*"It is also important to recognise that clause 6.5.7 of the NER does not require all the capex factors be taken into account in reviewing every program or project that may constitute a forecast capex allowance. Rather, in practice, the AER has only done so to the extent it is relevant and has considered it appropriate to do so. It should be noted that the process of considering weighing the relative importance of the capex factors in relation to a specific item of expenditure is not carried out in a formulaic manner. The relative importance of each factor necessarily involve the exercise of judgement based on the specific material being reviewed and accordingly, the each factor's relative importance can, and does, vary for each item of capex reviewed."*³¹

This interpretation of the Rules is consistent with statements made by the AEMC at the time of the 2006 review into the economic regulation of transmission services. The AEMC stated:

*"As such, the AER should retain discretion to consider each of the factors and make its decision on the basis of the relevance of each factor in each particular case. Including specific weightings for each of the criteria in Rules risks imposing an inappropriate degree of rigidity in the regulatory approach."*³²

The Rules do not limit the AER's ability to undertake its assessment in the manner it considers best. For example, the Rules do not prescribe the process that the AER must undertake to review the proposal. In recent times, the AER has used a combination of consultant reports, high level tools such as the repex model, detailed sample reviews, and direct questioning of the DNSP to inform its judgement on whether it is satisfied that the forecast meets the expenditure criteria.

The issue of a reasonable range does not enter into the debate. The DNSP is to prepare a proposal that demonstrates the forecasts meet the expenditure objectives and hopes to provide sufficient evidence to satisfy the AER that the forecast meets the expenditure criteria, having regard to the expenditure factors. The AER must demonstrate reasons as to why it is satisfied or not satisfied with a DNSPs forecasts. If it is not satisfied, it must reject the proposed forecast, and substituted forecast it is satisfied meets the expenditure criteria.

³¹ AER, Final decision: Victorian distribution determination, October 2010, p398

³² AEMC, Draft decision – Economic regulation of transmission services, July 2006, p55

3.3.2.3 Substitution powers under transmission and distribution frameworks

It is clear that, at the framework level, MCE Standing Committee of Officials (SCO) intended to apply the same framework for decision making to distribution as had been applied to transmission by the AEMC. The explanatory material released in January 2007 with the exposure draft of amendments to the National Electricity Law³³ stated at p30:

“The AEMC approach to operating and capital expenditure in transmission will be adopted for distribution”

The MCE SCO also explained that the amendments to the NEL allow for a “fit for purpose” model of regulatory decision making in the NER, as has already been applied by the AEMC in the new Chapter 6A³⁴

This approach was further explained when the MCE SCO released the draft Chapter 6 Rules in April 2007³⁵. The MCE SCO referred to the fact that the Expert Panel’s recommendations have informed the draft amendments to the National Electricity Law and the Exposure Draft of the electricity distribution rules (as well as the gas legislative package). The MCE SCO stated:

*“To achieve the MCE’s objective of consistency where appropriate, the Exposure Draft of distribution revenue rules largely builds on the AEMC’s approach to economic regulation of electricity transmission. The Exposure Draft takes into account differences in the nature of transmission and distribution networks, based on analysis of these differences undertaken during the development of the draft Rules.”*³⁶

So whilst the MCE SCO was aiming to achieve consistency between the two frameworks, it was also mindful of the differences between transmission and distribution expenditure and investments and that a broader range of decisions were required in relation to the distribution. For example specific decisions are required in relation to the classification of services and the form of control for distribution whereas these matters are fixed for transmission. The variety of control mechanisms available for distribution meant that the rules needed to move away from terms such as “revenue determination” and refer to “building block determination” as this was the basis of control for standard control services, but it could be applied to a number of control mechanisms. This in turn called for a more a tailored approach to guiding the discretion of the AER.

This was confirmed when the 2nd Exposure draft was released in October 2007. At that time the MCE SCO issued a table summary of changes from the first draft to the second draft. Clause 6.12.3(f)(2) was in substantially the same form as the final rules and the explanation in the table was “sets out limits to the AER’s discretion in relation to proposals- fit for- purpose framework”³⁷

In this context, the actual requirement of clause 6.12.3(f), the clause appears clear. If the AER refuses to approve an amount or value, including a capex or opex forecast, the substitute amount must be:

- Determined on the basis of the current regulatory proposal; and
- Amended from that basis only to the extent necessary to enable it to be approved in accordance with the rules.

Ausgrid’s submission is that clause 6.12.3(f) was included by the MCE SCO after careful consideration as to the appropriate level of guided discretion to apply to distribution and has been interpreted by the Tribunal in a way which is entirely consistent with the fit for purpose model recommended by the expert panel and incorporated into Chapters 6 and 6A. There is no analysis to support the amendment or removal of this provision alone or as part of the dismantling of the proposal respond model and such a change would not contribute to the achievement of the national electricity objective.

³³ MCE Standing Committee of Official “Electricity amendments and further amendments to the electricity and gas rule-change process” January 2007

³⁴ Op Cit p 5

³⁵ See Standing Committee of Officials of the Ministerial Council on Energy “Changes to the National Electricity Rules to establish a national regulatory framework for the economic regulation of electricity distribution” April 2007.

³⁶ Op Cit at p 5.

³⁷ MCE SCO Table Summary “Principle NER changes from 1st Exposure Draft”, October 2007.

3.3.3 Could the AER's objectives be reached using existing discretions?

We refer the AEMC to the submission of the ENA, including the advice provided by the Expert Panel which we support and adopt. As noted above, we consider that the AER's objectives do not meet the NEO.

We consider that the AER's interpretation of the limited discretions to reject and substitute afforded under the Rules is inconsistent with its practical application in regulatory decisions.

3.3.4 Are there alternative solutions?

We refer the AEMC to the submission of the ENA which we support. We consider there is no evidence to suggest that the AER's proposed Rule, or an alternative Rule would better meet the NEO objective, relative to the current framework.

4 Weighted Average Cost of Capital

4.1 Rule changes covered in this section

In this section we wish to cover:

- The AER's proposal for a combined review of WACC parameters be applied to electricity distribution, transmission and gas network businesses—consistent with its approach to WACC parameters under the current rules. To achieve this, the AER is proposing that the timing of the distribution and transmission WACC reviews be aligned.
- The AER's proposal to enable the AER's WACC approach to be updated more frequently than every five years if market conditions warrant it.
- The AER's proposal to remove the ability for it to depart from parameters or approaches set following a WACC review at the time of a determination.
- The AER's proposal to remove the persuasive evidence requirement justifying a departure from previously adopted parameters or approaches when setting the WACC. The current rules require persuasive evidence where a parameter value or approach cannot be determined with certainty at the time of a WACC review.
- The AER's proposal to remove prescription around how the cost of debt is set from the Rules.
- The EUAA's proposal that the cost of debt for government owned energy network businesses be set by reference to actual debt issues by jurisdictional governments (for each year on a rolling five year average basis) rather than being set by reference to a benchmark cost of corporate debt.
- The EUAA's proposal that the cost of debt for privately owned energy network businesses be set for each year by reference to a rolling five year average of broad BBB and A rated Australian corporate bonds.

4.2 Issues specific to Ausgrid

4.2.1 The need for transitional arrangements

The AER has proposed transitional rules that would enable it to apply the 2014 statement on the cost of capital to Ausgrid's next determination. The statement on the cost of capital would not be completed until 31 March 2014, which is one month before the AER is due to publish its final determination for Ausgrid. However, under both the current and the proposed rules, the outcomes of a WACC review would normally only apply to a determination where the final WACC statements were published prior to the lodgement of an NSPs initial regulatory proposal.

It is unclear why the AER is proposing to move away from the existing arrangements just for NSW and ACT DNSPs. In the absence of drafting it is also not completely clear how the transitional arrangements will work (ie what basis Ausgrid submits a regulatory proposal in respect of the cost of capital and what elements of the WACC decision are "decided" by the AER as part of these arrangements).

The return on capital is the most significant component of regulated revenues set by the AER. Of all the issues being discussed, it is likely to generate the most debate and controversy over the Rule change process. In fact it is likely that the AEMC will still be considering options and decision after the draft decision in July. If any one issue has the potential to extend timelines, it is likely to be WACC.

This would leave the NSW/ACT businesses in a very difficult position when preparing for the next regulatory proposal. Should the AEMC find in favour of the AER's position to bring the next review forward for NSW/ACT businesses, these businesses would have little specific preparation for their business. However, two important issues are relevant:

- It is not clear at this stage what form of review (if any) will take place and the timing of that review;
- The assumption of the AER's transitional arrangement would presuppose the AEMC's acceptance of the proposed Rule change and the AER's suggested approach to transition.

We note that NSW/ACT businesses have not been subject to general chapter 6 Rules regarding the application of WACC. In support of its proposed transitional arrangements, the AER submitted that transitional rules applied to Ausgrid for its previous determination. However, the current circumstance differs markedly from the arrangements in 2007. The previous transitional rules provided *more* certainty to Ausgrid by locking in certain cost of capital parameters (although the AER applied the transitional rules inflexibly).

In contrast, the proposed transitional rules would *reduce* certainty for Ausgrid because the outcomes of the next WACC review would be unknown before Ausgrid lodges its regulatory proposal. The transitional rules are also contrary to the AER's view expressed about the WACC rule change for other businesses—that the outcomes of a “locked-in” statement on the cost of capital would provide investment certainty to businesses. The proposed transitional rules would significantly reduce investment certainty for Ausgrid.

In order to minimise uncertainty and provide clarity for all stakeholders, Ausgrid submits that the AEMC should not subject Ausgrid to any changes to the Rules regarding WACC and instead let the current Rules apply to NSW and ACT businesses. This would ensure due process and allow businesses to prepare the proposal with a clear understanding of their obligations and the assessment of the parameters. In substance this would result in the NSW/ACT businesses or the AER being able to draw on information available at that time, including information arising in the context of any review being conducted by the AER, to justify a departure away from the current statement of regulatory intent (SORI).

4.3 Issues Specific to the Operation of the Rule

4.3.1 The Problem identified by the AER

4.3.1.1 Combined review of WACC parameters and timing of reviews

Ausgrid agrees that aligning the review of WACC parameters for electricity transmission and distribution companies would remove the potential for market wide parameters such as the market risk premium (MRP) to be applied inconsistently across the sectors. Ausgrid also agrees that changing the transmission (chapter 6A) rules to allow a WACC review to be conducted more frequently than every five years is appropriate.

However, consistent with the ENA's submission, Ausgrid notes that differences do exist between network sectors and individual businesses. This means that it is not always correct to apply the same WACC parameter values or approach across the transmission, distribution and gas network sectors. For example there are good reasons why the equity beta and the debt risk premium might differ across network sectors. The AER's approach to date has been to apply consistent WACC parameters across electricity transmission, distribution and gas networks but this approach in itself does not justify prescribing the use of the same WACC parameters/approaches in the rules' frameworks for gas and electricity.

4.3.1.2 Ability to depart from a WACC review at the time of the determination

Ausgrid strongly opposes the AER's proposal to restrict its ability to depart from a statement on the cost of capital at the time of a determination. As noted in the ENA's submission recent market events have demonstrated the need for a “safety-valve” in the rules, which enables the AER to adjust the WACC for a material change in market circumstances. The GFC has significantly increased risk and uncertainty in financial markets, which affects WACC parameters including the MRP, risk free rate and debt risk premium (DRP). Ausgrid notes that the AER has itself sought to depart from WACC parameters set in the Statement of Regulatory Intent in network decisions:

- In its most recent draft determination for Aurora electricity distribution the AER has used its existing discretion under the chapter 6 rules to depart from the MRP of 6.5% set in the 2009 Statement of Regulatory Intent and move to an MRP of 6%.
- In its most recent gas network decisions for Envestra and APT Allgas, the AER had discretion to apply 6% as its preferred value for the MRP.

These decisions demonstrate the AER's willingness to use its discretion to depart from a WACC statement at the time of a determination to reflect prevailing market conditions. This is clearly inconsistent with the AER's argument that WACC parameters are slow to adjust over time and should be locked-in through a statement on the cost of capital.

In addition to this, the AER's recent draft determination for Powerlink electricity transmission illustrates the inflexibility of the chapter 6A rules to enable the WACC to reflect prevailing market conditions. At the same time as it published its draft determination for Aurora adopting an MRP of 6%, the AER was unable to depart from the 6.5% MRP set in the 2009 Statement of Regulatory Intent in its Powerlink draft determination. Although, Ausgrid considers that the MRP remains elevated above historic levels following the GFC, this example illustrates the inconsistency across network decisions created by the excessive prescription and inflexibility of the chapter 6A rules.

In addition to allowing the regulated WACC to respond to material changes in market circumstances, the current chapter 6 rules allow departure from a Statement of Regulatory Intent where errors are identified in the AER's analysis. For example, the value for gamma set in the 2009 Statement of Regulatory Intent was found to be in error by the Competition Tribunal. The Tribunal adjusted the gamma value from 0.65 to 0.25 for Ergon Energy, Energex and ETSA Utilities. This new value has been applied by the AER in subsequent network decisions and was only possible because the chapter 6 rules permitted a departure from the Statement of Regulatory Intent where there was *persuasive evidence* to do so. In transmission determinations following the 2009 SORI, there has been no ability to depart from the 0.65 gamma value that was found to be in error.

The AER has argued that the current chapter 6 rules result in it being in continual "WACC review mode". CEG's report highlights the complexity of analysing the regulatory cost of capital issues. However, as noted by CEG, consensus could eventually be achieved under the current rules over time through consideration of cost of capital by the AER as well as independent review of cost of capital decisions by the Competition Tribunal where appropriate,³⁸ Furthermore, the rate of return is a major component of regulated revenues for NSPs and it is appropriate for the rules to provide flexibility respond to changed market circumstances or to correct errors in a SORI (or statement on the cost of capital).

4.3.1.3 Requirement to have persuasive evidence before departing from a previously adopted parameter/approach

The AER submits that the rules unduly restrict its ability to depart from a previously adopted WACC parameter/approach. However, the current rules provide investment certainty to NSPs over the long term that parameter values will not be significantly adjusted without persuasive evidence to do so (eg. the GFC would likely constitute persuasive evidence justifying departure from the previously adopted value for MRP).

Ausgrid therefore disagrees with the AER's proposal to have full discretion to depart from previously adopted WACC values/approaches without persuasive evidence to do so.

4.3.1.4 Removal of prescription around the cost of debt

The AER submits that the electricity rules prescribe that the cost of debt be set as a benchmark cost of debt, using the following parameters:

- observed yields on annualised Australian corporate bonds, which have a credit rating from a recognised credit ratings agency, and (the benchmark credit rating can be adjusted by the AER as part of a WACC review)
- a benchmark term to maturity consistent with the term of the risk-free rate proxy (the term to maturity of the risk free rate proxy can be adjusted by the AER as part of a review).

The AER has argued that these are not an exhaustive list of factors that may influence the benchmark cost of debt for energy network businesses and other factors such as bond size, liquidity and credit wrap features also affect the benchmark cost of debt. The AER notes that the rules do not explicitly provide for these factors to be considered when setting the cost of debt. However, the AER notes that the impact of these factors on the cost of debt is uncertain.

The AER also noted that current market conditions have severely limited the availability of data for Australian corporate bonds with a BBB+ credit rating (consistent with the AER's 2009 SORI) and a 10 year term to maturity (consistent with the term of the risk free rate proxy, also determined as part of the 2009 SORI).

Ausgrid agrees that there has been a significant paucity of Australian corporate bond data since the onset of the global financial crisis. Further complicating this issue is the fact that forecasting agencies have ceased to

³⁸ CEG, *Proposed changes to the National Electricity Rules, A report for Ausgrid*, December 2011.

publish fair value curves for 10 year BBB rated Australian corporate bonds. However, Ausgrid does not consider that the problem is due to an excessive level of prescription in the electricity rules. Ausgrid considers that the current rules provide appropriate guidance on parameters to be used in determining the benchmark cost of debt.

Ausgrid notes that the rules require the AER to use observed yields on Australian corporate bonds with a credit rating from a credit ratings agency and this remains appropriate. However, the term to maturity for determining the cost of debt could be separated from the term to maturity of the risk free rate proxy given that no Australian BBB+ rated corporate bonds with a 10 year term to maturity have been issued in Australia since June 2006.

4.3.2 Could the AER's objectives be reached using its existing discretion?

4.3.2.1 Combined review of WACC parameters and timing of reviews

Ausgrid agrees that consistency across electricity distribution and transmission determinations is complicated by the requirement to complete separate WACC reviews for each sector. However, Ausgrid notes that there are valid reasons why parameter values may differ across electricity and gas network businesses.

Consistent with the ENA's submission, Ausgrid considers that the chapter 6A rules should be adjusted to allow transmission WACC reviews to take place at least every five years rather than at set five yearly intervals. Furthermore, the chapter 6A rules should be changed to allow a departure from a WACC statement where there is persuasive evidence to do so. This will help to ensure consistency in market wide parameters across electricity transmission and distribution. This discretion already exists under the gas rules, so no change is required to the NGR.

4.3.2.2 Ability to depart from a WACC review at the time of a determination

The AER can achieve its objective of limiting "cherry-picking"³⁹ of WACC issues by NSPs at the time of a determination by appropriately exercising its discretion under the current chapter 6 rules. The AER must only depart from WACC parameter values/approaches set in a SORI if there is persuasive evidence to do so. The AER has the discretion to not depart from a SORI value/approach where it considers that ambit claims are being made by an NSP. However, the Rules appropriately guide this discretion by requiring the AER to consider whether there is persuasive evidence (such as a change in market circumstances or errors identified in a WACC statement).

Ausgrid also notes that by seeking to limit its ability to depart from WACC parameters/approaches determined in a SORI the AER is actually seeking to limit its own discretion.

4.3.2.3 Requirement to have persuasive evidence before departing from a previously adopted parameter/approach

In merits review proceedings the AER actually argued that the inertia principle should be applied to the value of gamma. The AER argued that the rules intended the SORI value for gamma to apply to regulatory determinations over a five year period. However, the Competition Tribunal stated that

The Tribunal accepts that due regard should be given to historical consistency in applying regulatory values over time. Nevertheless, the Tribunal, standing in the AER's shoes, is inescapably required to exercise regulatory judgment in determining the appropriate value of theta.

The Tribunal must determine an appropriate value for gamma on the basis of the material before it. It does not accept that its task is to determine a value of gamma that is appropriate and not too different from the previously determined value of gamma. That gives too little policy weight to the objective set out in s 7A of the NEL that a regulated DNSP should be provided with a reasonable opportunity to recover at least the efficient costs it incurs. That objective must outweigh any presumption of regulatory inertia. In any event, within the SORI framework by which the AER argues for the principle of regulatory inertia, the Tribunal has persuasive evidence justifying a departure from previously determined values of gamma.⁴⁰

³⁹ Ausgrid notes that it does not agree that NSPs cherry-pick WACC issues at the time of a determination. This is discussed elsewhere in our submission.

⁴⁰ Australian Competition Tribunal, *Application by Energex Limited (Gamma) No. 5 [2011] ACompT 9*, para. 36–37

The Competition Tribunal's comments demonstrate that the AER already has sufficient discretion under the current rules to depart from previously adopted WACC values/approaches when conducting a review of WACC parameters. The rules appropriately require persuasive evidence before a departure can occur. However, this is important to provide investment certainty.

4.3.3 The EUC's rule change proposal and cost of debt for government owned network businesses

4.3.3.1 Government owned vs privately owned cost of debt

Ausgrid supports the ENA's submission on the EUC's proposed rules for setting the cost of debt separately for government owned and privately owned businesses. Ausgrid has specific comments on the EUC's proposed approach to setting the cost of debt for government owned enterprises. The EUC claimed that government owned NSPs face a much lower cost of debt than privately owned corporations because state governments can access debt finance at much lower cost than privately owned corporations. However, this contention fails to recognise that the NSW government requires Ausgrid to pay a government guarantee fee to ensure Ausgrid does not receive a preferential cost of debt compared to privately owned NSPs.

As noted by the ENA the Competitive Principles Agreement (1995) following the Hilmer report identified debt neutrality as a key factor for achieving competitive neutrality of government owned businesses. The Competitive Neutrality statement noted:

Markets confer borrowing advantages to government owned enterprises through a lower cost of debt than a privately owned enterprise. To eliminate this advantage government owned enterprises became subject to government guarantee fees.⁴¹

In addition to ensuring competitive neutrality, government guarantee fees also compensate the NSW government for the debt pressures placed on it to raise finance for state owned enterprises such as Ausgrid. This is increasingly important due to the NSW government's investment and expenditure requirements over the next decade.

The Owen inquiry estimated that total state net debt for NSW is forecast to rise from the current level \$39.3 billion (9.3% of GSP) in 2011 to \$77.4 billion (12.1% of GSP) in 2020.⁴² Contributing to this debt is the NSW government's lending to state owned corporations/public trading enterprises such as Ausgrid. This lending is estimated to have risen from \$13.8 billion (or 4% of GSP) in 2006 to \$33 billion (7.8% of GSP) in 2011.⁴³ The government guarantee fee paid by Ausgrid and other state owned enterprises appropriately compensates the NSW government for these debt pressures.

The EUC claimed that jurisdictional governments earn dividends from government owned enterprises and should not be compensated for providing debt to government owned enterprises such as Ausgrid. However, as noted above the NSW government does face debt pressures in providing finance to state owned enterprises such as Ausgrid. Furthermore, to ensure that commercial disciplines do apply, it is appropriate to require government owned enterprises to pay commercial dividends to jurisdictional governments. As noted by the ENA, this was recognised in the Competition Neutrality statement:

Commonwealth organisations engaging in significant business activities would be required to earn commercial returns at least sufficient to justify the long-term retention of assets in the business, and to pay commercial dividends.⁴⁴

We do not accept the EUC's arguments in respect of competition. While Ausgrid itself does not face competition for its standard control services, there are substitutes to electricity supply such as natural gas. It is clear that allocative efficiency issues arise if statutory provisions moved away from the competitively neutrality principles:

- Firstly it may change investor behaviour in respect of fuel source—the EUC's proposed rule change would reduce the cost of electricity network services below stand-alone commercial costs. This could decrease

⁴¹ Treasury, *Commonwealth Competitive Neutrality Policy Statement*, August 1996, p 17

⁴² A. Owen, *Inquiry into the supply of electricity in NSW*, 2007, p. 6-23.

⁴³ A. Owen, *Inquiry into the supply of electricity in NSW*, 2007, p. 6-22.

⁴⁴ Treasury, *Commonwealth Competitive Neutrality Policy Statement*, August 1996, p 17

the cost of electricity simply due to government ownership of network businesses, discouraging users from considering other fuel sources such as natural gas.

- Secondly it may crowd out risky but highly valuable investment in non-network alternatives and demand side response—the current principles require government owned enterprises to generate commercial rates of return, which make it possible to invest in risky but socially valuable investment;
- Thirdly it may influence investor behaviour between jurisdictions—the EUC’s proposed changes would provide incentives for large energy users to relocate to jurisdictions where electricity costs are reduced through government ownership (government credit ratings would subsidise electricity network costs).

4.3.3.2 The use of a historical rather than a forward looking cost of debt

The EUC has proposed that the cost of debt for both government and privately owned network businesses be set on a trailing average basis in each year of the regulatory control period. The current electricity rules framework requires the AER to set both the cost of debt and the rate of return more generally as a forward looking value.⁴⁵ The EUC’s proposed approach involves setting the regulated cost of debt as the embedded/actual cost of debt rather than a benchmark and prospective cost of debt.

Ausgrid supports the ENA’s submission, which notes that the merits of such a major change to the NER would need to be analysed in greater depth before being adopted as part of any rule change.

4.3.4 Alternative Solution

Ausgrid supports the ENA’s proposed solutions to the problems identified by the AER. The current chapter 6 rules provide the necessary discretion to depart from a WACC statement at the time of a determination to reflect changed market circumstances or to correct errors in a SORI.

Ausgrid submits that the chapter 6A rules should be changed to provide this discretion to depart from a SORI where there is persuasive evidence to do so. Ausgrid also submits that the chapter 6A rules should be changed to allow a transmission WACC review to be conducted at least every five years rather than being conducted at fixed five yearly intervals.

To encourage wider debate on these important issues, Ausgrid separately engaged CEG to look at recent decisions surrounding the rate of return and what options may be available to improve the process. In particular, we asked CEG to look at the AER’s use of its discretion in setting the rate of return for businesses.

CEG’s report is attached to this submission. In summary, CEG provided evidence of how the AER has used its discretion to have the effect of setting a cost of capital that:

- is too low to provide electricity network service providers with a rate of return commensurate with the prevailing conditions in the market for funds consistent with the risks in providing reference services; and
- did not take into account a sufficient range of information to come to a good decision, particularly where this information contradicted the AER’s previous views or decisions.

It is CEG’s view that the AER has been relying on legal technicalities within the Rules to attempt to keep down the cost of capital allowed to businesses at a level that is artificially low given the current and recent economic turmoil.

CEG concludes that any new set of Rules needs to be one where the cost of capital decision making body has the expertise and incentive to properly implement the Rules in accordance with the NEO. CEG outlines three possible ways in which the quality of decision making on cost of capital issues could be improved without risking the achievement of the NEO are as follows:

- retain the status quo and allow more time for the AER to improve its reasoning in response to Tribunal decisions;
- give a role to an expert panel operating at arms length to the AER to either replace or assist the AER with some of its functions as concerns deliberations on the cost of capital; and

⁴⁵ See NER, r. 6.5.4 (e)

- create and fund a consumer advocate body for small energy users that may free up the AER to play a more neutral role in its decision making.

4.3.4.1 Independent expert panel

Ausgrid encourages the AEMC to look at developing a framework that would allow an expert panel to engage in significant and important detail regarding issues of both cost of debt and cost of equity. This would be consistent with the AEMC's view that the Rule enforcer should be guided in its discretion of interpretation of the Rules and would potentially overcome the observations noted in the CEG report that the AER seeks to use the Rules to adopt the lowest possible rate of return outcome.

Such an initiative would also allow more considered thinking of changes in market dynamics which evolve over time. At the moment this is only afforded to the AER at the time of a WACC review.

We have not thought through the details of how such an approach would be established in Rules. However the role of the expert panel would be:

- To look at movements in market dynamics, market practice and financial markets over time.
- Undertake a review of cost of capital components which provide a basis for the AER's decision over a particular period.
- Provide further guidance for the AER in applying a cost of capital consistent with the NEO and revenue and pricing principles.

The AER would ultimately still have the important role of setting the rate of return for each decision which would involve:

- Determining a rate of return having regard to the expert panel guidance as well as to the specific market conditions at the time of the reset; and
- Determining if the expert panel parameters should be applied or whether there is persuasive evidence to move away from the parameters at the time

We believe such an approach would overcome some of the shortcomings identified in delegating full responsibility of rate of return issues to the AER which has to date resulted in regulatory error. It also provides the NSP, regulator and other stakeholders the opportunity to engage in the debate with an independent arbiter on important regulatory finance issues.

We reiterate that this would not be a complete handover of decision making functions to an independent body. However, we would argue it provides the AER confidence of its decision making process as it is guided by a suitably qualified and independent expert body.

We would be happy to engage with the AER on these issues during this consultation phase.

5 Regulatory Incentive Frameworks

5.1 Rule changes covered in this section

In this section we intend to cover

- The AER's proposal for capital expenditure incentive
- The AER's proposal for wider powers to implement its own mechanism
- The AER's proposal for a reopener mechanism within period
- The AER's proposal for a contingent project mechanism
- The AER's proposal to include a specific threshold for materiality
- The AER's proposal for a revenue sharing mechanism

5.2 Issues specific for Ausgrid

5.2.1 Transitional Arrangements for incentive mechanisms

The AER has proposed transitional rules under which the majority of these changes would not apply to Ausgrid for its upcoming reset. Ausgrid agrees that it is inappropriate to apply an incentive scheme that affects past expenditure to Ausgrid. However, the AER is also proposing that the rules be changed to provide the AER with greater discretion to provide any incentive scheme it sees fit and that this rule change apply to Ausgrid for its upcoming reset.

The AER is proposing that it be given the discretion to apply incentive schemes other than the EBSS, STPIS and DMIS to Ausgrid for the upcoming reset. Ausgrid notes that the AER has provided very little guidance on what potential incentive schemes could be applied under such rules.

Any new incentive scheme could place Ausgrid's regulated revenues at risk and would require significant consultation during a reset process. Therefore such a broad discretion would create unacceptable uncertainty for Ausgrid (and other NSW and ACT DNSPs) for the upcoming reset. Ausgrid does not consider it appropriate to increase the AER's discretion to apply any incentive scheme to capital expenditure. As discussed below, Ausgrid agrees with the ENA that an appropriate way to develop better incentives to ensure capital expenditure efficiency would be to develop an EBSS for capital expenditure under the current rules.

5.2.2 Transitional Arrangements for AER powers to implement its own mechanism

We do not believe a Rule which would give discretion to the AER to implement its own incentive mechanism should give the AER the ability to establish a new mechanism and apply it to our regulatory determination. The timing between the finalisation of the Rule change and the submission of our regulatory proposal is too truncated to allow an additional process of establishing a new incentive scheme to apply to our determination.

5.2.3 Transitional Arrangements for pass through, reopener and contingent project mechanisms

There is a considerable degree of uncertainty surrounding the AER's definition of a pass through event. Ausgrid notes that there have been significant changes in interpretation between distribution determinations and in respect of individual pass through applications.

Therefore, on the one hand, given the inherent uncertainty with the definition of pass through event that currently exists, Ausgrid is in no better or worse position with regard to a rule change. However, there may be circumstances where a change to the Rules would impact our preparations. We would like to work with the AEMC as their thinking develops on this particular aspect of the Rule change.

In respect of the proposed framework for contingent projects, we note that Ausgrid currently has a probabilistic approach to dealing with uncertain projects that takes a portfolio view to determine a likely expenditure profile for large uncertain connections to the network. Under the proposed contingent project framework, Ausgrid would need to identify uncertain projects that meet the threshold in the Rules, and isolate

these from the probabilistic analysis. This would reduce the likelihood of an accurate forecast, and would result in potential errors in our forecast if we do not have adequate time to respond to the Rules framework.

Ausgrid notes that the materiality threshold for a reopener proposed by the AER would require an event of about \$800 million in capex. This threshold is set at too high a level to be meaningful. Therefore the reopener provision, set at this level, would not affect Ausgrid's planning process for the next reset.

5.2.4 Transitional arrangements for revenue sharing arrangements

Given the complexities of the issues involved in establishing an appropriate arrangement to cater for unregulated revenues from shared assets, we are concerned that the final rule will not give us sufficient time to prepare for our proposal consistent with any amended rule that applies. In short, we don't know enough about the final Rule to understand how much it would impact the preparation of our proposal. Under certain scenarios, there may be significant impacts on our preparation (particularly if it required changes to cost allocation arrangements).

There may be other alternative arrangements that may have less of an impact on our proposal preparation. We are willing to work with the AEMC on the extent to which this potential Rule (if a change is made) can be accommodated for our revenue determination process.

5.3 Issues specific to the Rule change

Ausgrid would recommend the AEMC to revisit its own previous analysis undertaken as part of its review of Transmission Rules in 2006. The AEMC then highlighted the importance of balancing the appropriate "mix" of incentives to the NSP. We would reiterate the comments made by the AEMC at the time of the last review. This is why we would support guidance for the AER in exercising discretion under the Rules.

Ausgrid is concerned that the AER has expressed conflicting views on expenditure against forecast. The AER is critical of expenditure outcomes under legacy regulatory regimes. We have already argued that this is reflective of a more open discretion which established lower forecasts than what was required. Ausgrid also notes that the most recent AER performance report of NSW businesses stated that all DNSPs spent less on capital expenditure than their approved forecasts. This led the AER chairman to state that "...where forecasts are inflated it has a significant impact on the costs to consumers."⁴⁶ The AER's news release makes no mention of the fact that overall energy volumes (as opposed to maximum demand) are also well below forecast. Forecasting is never precise and a range of circumstances can lead to outcomes above or below what was allowed at the time of the determination. We remain concerned that the AER in this Rule change proposal portrays under-expenditure against forecasts as a demonstration of inflated forecasting and over-expenditure as a demonstration of inefficiency.

5.3.1 Capital Expenditure Incentive

We support the ENA's submission in response to the AER and EUC Rule change.

We note that the ENA accepts that, in the absence of an EBSS arrangement for capital expenditure, NSPs generally face stronger incentives to reduce capital expenditure earlier in the regulatory period and weaker incentives towards the end of the period. We agree with the ENA that the AER's claim that differences between allowed and actual costs of capital during the period has accentuated the incentive, is not based on any evidence.

We also support the ENA's dismissal of the proposed AER incentive, agreeing that is unnecessarily prescriptive and may ultimately fail to promote the NEO and the AER's own objectives in respect of such schemes.

We also agree that the asymmetric nature of the proposed incentive may also undermine its effectiveness and could potentially lead to the deferral of demonstrably prudent and efficient expenditure.

We are therefore very concerned about a combination of the AER's proposed decision framework (where the AER sets the forecast) and the AER's proposed expenditure (where the NSP is penalised for expenditure

⁴⁶ AER, *News release: ACT and NSW electricity distribution business comparative performance report 2009–10*, 16 November 2011.

above the AER's determined forecast). This dangerous combination has the potential for serious regulatory error and expenditure outcomes that are not in the long term interests of consumers.

The ENA rightly notes that the AER already has discretion under Chapter 6 of the NER to develop an EBSS with application to capital expenditure for distribution, which it has not exercised to date.

5.3.2 Discretion to introduce new incentive schemes

Like the ENA, we do not agree that there is a problem with the existing regulatory arrangements in relation to introduction of new incentive schemes. We would prefer suggested incentive arrangements to be assessed against the mix of incentives available to ensure an appropriate balance consistent with the NEO and revenue and pricing principles.

We agree with the ENA that an open discretion to apply a new incentive arrangement on top of a prescribed framework is not consistent with good regulatory practice because they will significantly impose uncertainty around the scope of future potential incentive schemes, with no significant offsetting benefits being identified.

5.3.3 Reopener mechanism

As noted above the materiality threshold proposed by the AER would require an event of about \$800 million in capex. This threshold is set at too high a level to be meaningful. In our view, the types of event that may trigger a need to revise the determination could be dealt with through a general pass through event, rather than constructing an additional mechanism in the Rules.

5.3.4 Contingent Projects

Ausgrid does not consider that the inclusion of a contingent project framework would better meet the NEO and revenue and pricing principles. The key principles in the NEL are the recovery of efficient costs and providing incentives for efficient investment. A further principle is administrative simplicity.

The ex-ante framework is directed at meeting these objectives. The framework recognises that there is an inherent uncertainty in forecasting expenditure requirements. The role of the regulator is to set an allowance (not a project specific allowance) at the time of the proposal based on reasonable assumptions of the future. The regulator does not step into the role of micro managing the business, rather the regulator provides incentives for a business to work within the allowance provided, adjusting to variations in the forecast.

The contingent project framework is an add-on to the ex ante framework. It is designed to avoid windfall gains or losses as a result of large projects that are highly uncertain at the time of forecasting. This is more likely to occur in a transmission context.

TNSPs generally propose a small number of large projects. A contingent project framework may be suitable where there is a clearly defined event that may trigger significant investment (for example, a new generator). In these cases, the TNSP cannot use a portfolio approach to determine an appropriate allowance to account for the uncertainty. It is likely that there would only be a few of these types of projects, and therefore be administratively practical for the AER to consider on an ad-hoc basis during the regulatory period.

Distribution networks are characterized by a large number of smaller scale projects. In most cases, the trigger for investment can be forecast with certainty (for example, replacement needs or organic growth). In a minority of cases, investment requirements are based on uncertain events, for example a large customer connection or large land release. However in these cases, distributors are also able to account for uncertainty by taking a more probabilistic approach to uncertain events, such that there is unlikely to be a windfall gain or loss.

As distribution projects are generally much smaller than transmission projects, project lead times are significantly shorter. This presents a fundamental issue as contingent projects must be identified in a regulatory proposal. This is often not possible as a DNSP may not become aware of the need for a project at the time of the regulatory proposal. This is not such a concern for transmission projects which may have longer lead times.

The shorter lead times and inability of DNSPs to nominate projects as contingent at the time of the Regulatory proposal also means that the introduction of a contingent project regime for distribution cannot substitute for the present inclusion of overspend in the RAB.

The difference between transmission and distribution was recognised by the MCE when it developed the Chapter 6 Rules the MCE noted that the contingent project regime should not apply to distributors. The MCE stated:

“Transmission capex can be lumpy and strongly influenced by individual projects, which may suffer a range of external impacts on timing and scope. Distribution capex is more predictable through demand trends. Uncertain distribution projects may be accommodated by pass-through.”⁴⁷

In addition to our reservations with the contingent project regime, Ausgrid notes that the proposed Rule sets the materiality threshold at \$10 million, unless the AER amends the threshold through optional guidelines. As noted in our earlier comments, the AER would not be able to undertake a revision to the guidelines prior to our regulatory proposal. A threshold of \$10 million would mean that a large number of contingent projects may be included in the AER’s determination. In effect, this would result in the AER undertaking a series of mini determinations throughout the period, and this would be overly resource intensive.

We consider that the contingent project regime should be limited to one or two projects of a significant size. We note that the current drafting of Chapter 6A would result in a materiality threshold of \$60 to \$100 million for a business the size of Ausgrid. This would be a more appropriate level.

5.3.5 Materiality threshold for pass throughs

5.3.5.1 The problem identified by the AER

Whilst it appears the AER’s proposed change to the definition of pass through events may be an improvement from the process perspective, Ausgrid considers that the AER has not demonstrated substantive case for change.

The current Rules relating to pass through provisions for DNSP do not define the meaning of materiality except to say that this word has its ordinary meaning. The AER proposes to pre-define and codify the meaning of materiality as one percent of annual revenue requirement in the relevant years.

The AER has argued that:

- The absence of a threshold creates uncertainty for stakeholders and that the incentive based framework of the five yearly reset model in can be undermined by “overly frequent” cost pass through applications if there is too much flexibility in the framework. The AER contends that DNSPs have the incentive to devote resources to continually seeking upwards adjustments to forecasts rather than focusing on beating the targets set by the AER. This effectively implies that the DNPS, instead of seeking efficiency improvements, would always try to recover more costs.
- A one percent threshold would provide an appropriate balance between certainty and maintaining the incentive for the DNSP to operate efficiently.
- The proposed codification of the one percent threshold would bring the Rules for DNSP into line with that applicable to TNSPs.
- There is a potential for double recovery due to the treatment of capex allowed in the pass through application.

Whilst we consider that the AER’s proposed Rules change might provide an improvement from a process perspective; the AER has not demonstrated a substantive case for change nor do we consider a case for change could be established.

First, it is presumptuous and simply incorrect to assume that because there is flexibility in the Rules that the DNSPs would continually devote its resources to seek upwards adjustments to its revenue and not find ways to operate efficiently so as to beat the target set by the AER. There are a number of strict requirements that a DNSP must met in order to demonstrate that a positive change event has occurred and materiality is only one of these requirements. Ausgrid’s experience is that DNSPs seek pass through because they consider that a pass through event had a non trivial financial impact on its ability to recover the efficient costs of providing

⁴⁷ MCE, Electricity amendments and further amendments to the electricity and gas rule-change process, January 2007, Table 2, page 6

direct control services. To date there have only been 2 applications to pass through positive change events by DNSPs under the current materiality provisions. One by Ausgrid and one by PowerCor. This does not support an argument that the DNSPs have an incentive to make overly frequent cost pass through applications. PowerCor's application was refused on the basis that a positive change event had not yet occurred whilst Ausgrid's application was refused on the basis that the NSW Solar Bonus Scheme did not materially increase the costs of providing direct control services.

In discerning the ordinary meaning of "materiality" the AER is required to apply a meaning that is consistent with the language and purpose of the pass through provisions in the Rules, the National Electricity Objectives and the National Electricity Law, which includes the Revenue and Pricing Principles. The AER's rule change proposal had not provided a convincing case or indeed any material which addresses how a one per cent threshold would meet these requirements.

Instead of pre-defining the meaning of materiality within the Rules, Ausgrid considers that the present flexibility afforded by the Rules should be maintained. In Ausgrid's application for the pass through of costs relating to the NSW Solar Bonus Scheme, Ausgrid considered the meaning of materiality at length and we concluded that the ordinary meaning of the term 'materiality' is intended to represent "significance" or "of consequence".

In its assessment of Ausgrid's SBS application, the AER adopted the meaning which was broadly consistent with Ausgrid's approach being "to an important degree; considerably".

The AER's application of the materiality threshold resulted in the AER finding that an increase in operating costs of \$16.6 million capex over the current regulatory period did not materially increase Ausgrid's costs of providing direct control services. Whilst Ausgrid does not accept the AER's assessment of materiality, there was no suggestion in the AER's determination that it had formed the view that the Ausgrid's application was inappropriate or arose as a result of an incentive to make applications for a pass through rather than respond to incentives.

The AER's Rule change has not demonstrated substantively why this meaning, one that it has adopted in Ausgrid's application at the beginning of this year should be changed. Further, the AER's approach to materiality for nominated events in the AER's distribution determinations to date⁴⁸ have been variable and inconsistent with each other. This AER Rule change proposal does not address these issues and adds no further clarity as to why the current Rules should be changed.

Further, the AER assumes that any recovery of costs via a pass through mechanism dampens a DNSP's incentives to efficiently manage its costs. In making such assumption, the AER fails to recognise that cost pass through mechanism is designed specifically to enable DNPS to recover costs which were unforeseen at the time the forecast expenditure were submitted as part of the regulatory proposal.

In fact the AER recognises that its proposed changes to the manner in which forecasts of required expenditure are set could have the potential to negatively impact on NSPs in the event of significant event or unforeseen circumstances.⁴⁹ In this context, it is more appropriate to adopt a meaning of materiality that accounts for the circumstances of the DNPS and whether the National Electricity Objectives and the Revenue and Pricing Principles are met; instead of a hard coded definition of one percent that would potentially exclude the recovery of costs that do not meet this threshold and yet still have a non trivial impact on the cost of providing direct control services.

Third, there is no requirement the materiality threshold for DNSPs and TNSPs must be the same. The notable absence of a definition of 'materiality' in the Rules for the purpose of pass through provisions for DNSPs provides a clear distinction of between the meaning of materiality in the context of TNSPs pass through events and DNSPs pass through events. This is consistent with the approach taken to the Distribution Rules which demonstrate a clear intention to depart from Transmission Rules in certain circumstances.

⁴⁸ See AER's Final Decisions- NSW distribution determination 2009-2014, April 2009, p 280, QLD distribution determination 2010-2015, 6 May 2010, p 345 and the Victoria distribution determination 2011-2015, October 2011 at pp759 and following.

⁴⁹ AER, *Rule change proposal Economic regulation of transmission and distribution network service providers AER's proposed changes to the National Electricity Rules*, September 2011, p. 22, 46 and 51.

For the reasons set out above, the AER had not demonstrated why its proposal to ‘bring the arrangements that apply to DNSPs into line with TNSPs’ is appropriate or necessary.

The AER also contended its proposed Rule change will remove the potential for double-recovery of capex that exists under the current Rules. On the scant details provided by the AER to support this claim, we fail to understand how this double recovery can occur under the current Rules. This claim should be further extensively elaborated and supported by the AER before a proper assessment of the merits of the AER’s proposal can be made; and also before stakeholders can properly respond to this Rule change.

Finally, we consider that the AEMC should carefully consider effect of the AER’s rule change with respect to the ability of a business be afforded an opportunity to recover the efficient costs of providing direct control services.

Similar to the term materiality, the term costs that is used in pass through provision is not defined in the Rules. Consistent with how the term materiality should be defined, Ausgrid considered that the term “cost” should be given its most natural and ordinary meaning which is appropriate in the circumstances. In the context of pass through, “cost” is the expenditure or outlay that results from the occurrence of the pass through event, i.e. the incremental capital and operating expenditure.

In its SBS decision for Ausgrid, the AER considered that the term costs in the context of pass through provisions refers to the sum of opex, return on capital, return of capital and tax. That is, cost is the cost of financial compensation to Ausgrid, being the additional regulated revenue Ausgrid would require as the result of the SBS.

We consider the AER’s definition of costs to be flawed as it conflates the assessment of forecast expenditure for efficiency and the calculation of the regulated revenue a DNPS requires to recover the efficient costs. These are two separate exercises. The building block regime does not treat or equate regulated revenue with the actual costs a DNPS forecasts it will have to incur to provide a specific service.

We consider our interpretation of costs in pass through provisions to be correct because:

- The definition of ‘eligible pass through amount’ explicitly states that the increase in costs it is concerned with is not the revenue impact of the event, and accordingly it must refer to actual expenditure.
- An interpretation of the term costs in the building block regime especially clauses 6.5.5. and 6.5.7 which require a DNPS as part of this regulatory proposal to forecast capex and opex expenditure.

The tables are extracted from our SBS pass through application and they illustrate the difference. Table 1 shows the forecast opex and capex that Ausgrid expected to incur as the result of implementing the NSW SBS. Table 2 however shows the building block revenue that Ausgrid needed, through pricing, to recover these forecast opex and capex for the current regulatory period.

Table 1: Costs of implementing the NSW Solar Bonus Scheme

Eligible pass through amounts (\$M nominal)	FY10	FY11	FY12	FY13	FY14	Total
Opex	1.1	6.2	4.8	2.5	2.0	16.6
Capex	1.3	9.0	5.1	1.9	1.3	18.6
Total ⁵⁰	2.4	15.2	9.9	4.4	3.3	35.2

⁵⁰ Totals may not add due to rounding

Table 2 – Revenue required via pricing to recover the costs

Positive pass through amounts (\$M nominal)	FY10	FY11	FY12	FY13	FY14	Total
Return on capital	-	0.1	1.1	1.5	1.6	4.3
Return of capital	-	0.1	0.5	0.8	0.9	2.3
Opex	1.2	6.2	4.8	2.5	2.0	16.6
Tax	0	1.1	0.9	0.5	0.4	3.0
Total ⁵¹	1.4	7.5	7.2	5.3	5.0	26.9

In this context, we are concerned that the combined effect of the AER's proposed definition of materiality of one percent and its incorrect interpretation of the term costs within the pass through provisions will in fact set a very high threshold for the approval of any pass through amounts. The AER's definition for both terms materiality and costs, if accepted, will very likely to deprive a DNSP of any opportunity to recover the incremental costs of providing direct control services resulting from an event that would have met all other elements of a positive change event apart from materiality due to the AER's incorrect definition of the term costs and an inflexible adoption of a threshold for materiality.

We consider that a substantive case for change has not been demonstrated by the AER. If there is a need to pre-define the ordinary meaning of materiality, an equally compelling case is had for the need to pre-define the term costs and not leave the interpretation of this term of the discretion of the AER.

5.3.5.2 The balance between prescription and discretion

The AER proposed rule changes seeks to remove the AER's discretion to determine whether an event has materially increased a DNSP's costs of providing direct control services so that materiality is defined by reference to a fixed 1% of revenue materiality threshold. For the reasons set out above, Ausgrid's view is that the AER has not substantiated how a move to a prescriptive approach is likely to contribute to the achievement of the national electricity objective. The AER's assertion of overly frequent cost pass through applications and the undermining of efficiency incentive is not supported by evidence. In addition, the basis of the AER's assertion that there is a potential for double recovery of capital expenditure is not explained sufficiently to enable us to respond.

5.3.5.3 Could the AER's objectives be achieved through its existing discretions

The AER's proposal is to remove its discretion and judgement in relation to materiality and fix a prescribed amount, this could not be achieved under the existing rules as they require the AER to consider the ordinary meaning of materiality, not a fixed dollar threshold.

5.3.5.4 Alternative solutions

Ausgrid does not consider that the problem identified by the AER is borne out by the available evidence, therefore we do not consider that there are more preferable solutions

5.3.6 Treatment of unregulated revenue from Shared Assets

Ausgrid agrees with the ENA that any form of sharing mechanism must be based on the application of the following principles:

- Meaningful incentives should be maintained for DNSPs to engage in appropriate profitable activities that utilise shared standard control service assets;
- The extent of sharing the benefits derived from the use of shared assets to generate revenue from non-regulated activities should take into account the risks associated with undertaking these activities.

⁵¹ Totals may not add due to rounding

- Any adjustment for the benefits derived from the use of standard control service assets in provision of other than standard control services should be subject to positive commercial outcome having been achieved; and
- Regulatory oversight should not be imposed unless the benefits derived from use of shared assets in non-regulated activities materially exceed the cost of this oversight.

We also note that the AER and ENA have arrived a potential solutions aimed at addressing the issue of shared assets. Ausgrid considers the appropriateness of the various mechanisms being proposed requires further careful and in depth analysis. The issues are complex, especially with the roll out of NBN which would have a significant impact on our network and is anticipated to require the use of a significant portion of our existing assets currently used to provide distribution services.

We are also concerned that there is a potential for access to the electricity network for the purposes of NBN to be subject to different regulatory regimes applicable to telecommunications, whilst at the same time the use of such assets for distribution services are regulated under the Rules.

Any proposed framework would need to deal with the following additional complexities:

- The fact that there is unlikely to be an exact sharing of revenues with costs
- The existing rules framework differentiates between asset currently in the RAB and assets moving into the RAB for the first time – under Schedule 6.2.1, assets are rolled into the asset base *only* to the extent that they provide standard control services
- In many circumstances the actual revenues from unregulated service provision are likely to be negligible compared to the potential cost of administering the regime

We do not consider the AER has properly considered the many complexities involved in established a regime looking at the treatment of shared assets. The proposed changes, as drafted, do not sufficiently contribute to the NEO. Should the AER wish to consider an alternative Rule, it should consider a wider range of options and analyse them against the principles identified by the ENA.

There is also a technical definitional issue around the assets or services that the AER considers should be subject to a revenue decrement. The AER's rule change refers to a revenue decrement arising from the use of :

“assets forming part of the regulatory asset base for the provision of services other than the provision of standard control services.”

This means that assets which are used to provide alternative control services could potential give rise to a revenue decrement if those assets remain in the regulated asset base established under Part C of Chapter 6. This would be inappropriate as such services would be subject to a separate control mechanism.

Ausgrid submits that careful consideration should be given to the articulation of services that should be the subject of a revenue decrement.

6 Regulatory Decision Making Process

6.1 Rule changes covered in this section

The AER Rule Change Proposal raises a series of procedural issues associated with the current drafting of Chapter 6 and Chapter 6A of the NER:

1. Submissions received from NSPs late in the process dealing with matters that should have formed part of the original proposal
2. NSPs claiming confidentiality over material that the AER does not consider to be genuinely confidential
3. Inefficiencies in the framework and approach paper process
4. Limited ability to correct decisions for material errors
5. Inconsistency across electricity distribution and transmission and gas in timeframe allowed for conduct of WACC review
6. Inability to extent timeframe for particularly complex or difficult pass-through applications, contingent projects and capex reopeners

6.2 Issues specific to Ausgrid

The AER considers that the current provision in relation to the framework and approach paper should apply to the NSW and ACT 2014 distribution determinations.⁵² Ausgrid agrees that the proposed changes in relation to the framework and approach process for incentives schemes or the alternative proposed by the AER cannot reasonably apply to NSW and the ACT upcoming determinations.

However, Ausgrid does consider that the proposed changes to align the ability to move away from the classification of service and control mechanism set out in the framework and approach paper could be applied to the upcoming NSW ACT without prejudice to those DNSPs. This is largely because they rationalise the existing ability of the DNSP to argue in its regulatory proposal for a different classification of services by also enabling for the form of control to also change if there is a classification change.

6.3 Issues relevant to the Rule change generally

Ausgrid supports and adopts the ENA's submission regarding the issues raised above and the supporting analysis from Gilbert and Tobin. Ausgrid does however wish to make some additional comments in relation to the AER's proposal in relation to the framework and approach paper process.

6.3.1 The problem identified by the AER

The AER identified the following three problems with the current framework and approach paper process:

- results in an inefficient three stage consultation process on the development and application of the incentive schemes in distribution;
- creates the potential for a mismatch between a particular service classification and the form of control to apply to that service; and
- does not strike the right balance between certainty and flexibility regarding the degree to which service classifications and control mechanisms are "locked-in" at the framework and approach paper stage

Ausgrid supports the ENA's analysis and proposal for a more efficient and streamlined process. However Ausgrid would also like to address the second and third issues in so far as they would continue to exist even if the ENA's suggested approach was adopted.

⁵² AER's Rule Change Proposal "AER's proposed changes to the National Electricity Rules, September 2011 at section 9.2.

Ausgrid agrees that the current provision creates the potential for a mismatch between particular service classifications and the form of control to apply to that service because whilst there is flexibility to change the classification of services away from the framework and approach paper there is no such flexibility for the control mechanism.

Ausgrid therefore agrees that the scope to move away from the Framework and Approach paper should be the same for classification of services and the form of control. Ausgrid also agrees that there needs to be a balance between certain and flexibility regarding the degree to which service classifications are “locked-in” at the framework and approach paper stage.

Ausgrid however does not agree with the way in which the AER proposes to strike this balance .

Currently there is scope to move away from the classification of services in the framework and approach paper if the AER’s is satisfied that there are “good reasons” for departure.⁵³ However, there is no scope to move away from the framework and approach paper in relation to the control mechanism.

The AER’s proposal is that both the proposed classification of services and the control mechanism in the framework and approach paper could be departed from if the AER considers the DNSP’s proposal or submission received show that there “ are “circumstances that were unforeseen at the time the AER published the relevant framework and approach paper which justify a departure”⁵⁴.

Although not specifically mentioned in its proposal, it is reasonable to infer that the AER wishes to remove the ability of DNSPs to seek to move away from the framework and approach paper unless there is fresh material to support such a move. This is not required by the current rules in relation to service classification, as they contemplate the DNSP’s proposal and submissions providing good reasons to move away, ie the current rules preserve the ability for the DNSP to further ventilate the issue in its proposal to convince the AER that there are good reasons to move away from the position adopted in the framework and approach.

6.3.2 The balance between prescription and discretion

Ausgrid is concerned that the AER’s proposal shifts the balance too far and inappropriately limits the ability of the DNSP to request, and AER’s discretion to determine, to move away from the framework and approach paper

In Ausgrid’s view the appropriate balance is one which allows the DNSP to put, and the AER to consider, any persuasive material which supports the change, as part of the regulatory proposal. This is consistent with the framework and approach paper being an *indication* of the AER’s likely approach and the reasons for such an approach.⁵⁵

In addition, an assessment of whether circumstances were foreseeable would be too subjective and fraught with difficulty and would not deliver the right outcomes. For example a pending judicial decision on the scope distribution services could impact on the classification and control mechanism. Such a decision could have been “foreseeable” at the time of the regulatory proposal if it was pending, but its outcome should not be excluded from the AER’ s consideration because it was foreseeable. It would not be known whether there are persuasive reasons to move away from the classification and control mechanism until the decision is handed down.

The AER’s objectives with respect to appropriate flexibility to move away from the framework and approach paper for both classification of service and the control mechanism is not available under the current framework and can only be achieved through a change to clause 6.12.3(b).

6.3.3 Is there a preferable Solution?

Ausgrid submits that a preferable solution would be to maintain the ability of DNSP to seek and the AER to consider a request in a regulatory proposal to move away from the classification of services in the framework and approach paper, and in addition to amend the rules to extend this ability to the control mechanism, in circumstances where there are persuasive arguments or material to support such a move away

⁵³ Clause 6.12.3(b) of the Chapter 6 Rules

⁵⁴ AER’s proposed amendment to clause 6.12.3(b) and (c).

⁵⁵ See section 6.8.1(b) of the Chapter 6 Rules.



Proposed changes to the National Electricity Rules

A report for AusGrid

Dr Tom Hird

December 2011



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1. Introduction

1. CEG has been commissioned by AusGrid to write a report commenting upon the performance of the Australian Energy Regulator (AER) in exercising its discretion under the National Electricity Rules ('the Rules'), and in particular its treatment of cost of capital issues. We have also been asked to address issues that have been raised about whether government owned and privately owned businesses should be assessed to a different benchmark in regards to their cost of capital. This report is being written in the context of proposals by the AER and the Energy Users Council (EUC) that are currently under consideration by the Australian Energy Markets Commission (AEMC).
2. The Rule changes proposed by the AER would (amongst other changes) have the effect of:
 - providing considerably greater discretion to the AER to determine the risk-free rate and the cost of debt, since the wording under the current Rules that provides direction for this would be struck out; and
 - "locking in" the cost of capital parameters and methodologies set by the AER in its five-yearly reviews such that only the AER can decide whether to perform an unscheduled review of these before five years has passed. Currently, the AER is required to amend these parameters if there is persuasive new evidence that supports a change to one of the parameters.
3. AusGrid's specific terms of reference are:

Please provide a critical discussion of the AER's use of discretion under the existing Rules in order to set a WACC consistent with the NEO.

Please consider whether the AER's proposed Rule change would be likely to improve the outcomes of WACC decisions made under the Rules.

Are there other changes to the governance structure that you consider might achieve improved WACC decisions under the Rules?

Please provide a critical discussion of the EUC's proposal (and supporting arguments) to differentiate between Government and Commercial businesses

4. Over the past two years the AER has been involved in four appeals over cost of capital issues.¹ In each of these appeals the Australia Competition Tribunal ('the Tribunal')

¹ See: Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8 (12 November 2009); Application by ActewAGL Distribution [2010] ACompT 4 (17 September 2010); Application by Jemena Gas Networks (NSW) Ltd (No 5) [2011] ACompT 10 (9 June 2011); and Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9 (12 May 2011).



has made a finding of error against the AER and has ordered parts of its decisions to be changed.

5. In our view, the findings of error by the Tribunal are due, amongst other things, to a failure of the AER to be fully informed about the issues it is deciding and to properly exercise the discretion available to it under the Rules. To some extent this likely reflects a 'bedding down' period in the application of the current Rules. Over time, it may be the case that:
 - the AER and other parties take a less adversarial approach to the application of regulation; and
 - the AER becomes more willing to bring external expertise to bear in its consideration of issues, particularly on cost of capital issues.
6. We believe that it is incorrect to characterise the reasons for the findings of error by the Tribunal as down to 'arcane' or 'technical' details of cost of capital issues. Similarly, in our opinion it is incorrect to argue that some strict interpretation of the Rules has forced the AER, on a technicality, to allow a greater cost of capital than is truly efficient.
7. Rather, we believe that the reverse is true. The AER has been relying on legal technicalities within the Rules, the effect of which reliance would be, if allowed to stand, to reduce the cost of capital allowed to businesses to a level that is artificially low given the current and recent economic turmoil. It is the AER that has been relying upon a narrow legal interpretation of the Rules, which we believe is ultimately incorrect, to attempt to limit the extent to which increases in efficient financing costs can be passed on to consumers. In our view, this is the reason for successful appeals of decisions made by the AER.
8. We have also been asked to consider the EUC's contention that government owned and privately owned NSPs have fundamentally different actual cost of debt characteristics. Our view is that this claim is based on a fundamental misunderstanding of both finance theory and the reasons for the government guarantee fee that is charged by State governments to government owned NSPs such as AusGrid.
9. The remainder of this report illustrates the issues identified above by reference to specific examples of issues considered by the AER and the nature of the debate:
 - Section 2 introduces three case studies of cost of capital issues considered by the AER and illustrates the sequence of events and decision making by the AER that eventually led to its decisions being overturned on appeal by the Tribunal;
 - Section 3 brings together the common threads from each of the case studies analysed in Section 2 to discuss the AER's role in exercising the discretion granted to it under the Rules, and canvasses a number of options that may have the result of improving the quality of decisions under the Rules; and



- Section 4 looks at EUC's proposal to differentiate between government owned and privately owned NSPs in assessing the debt risk premium.



2. AER decision making on cost of capital issues

10. This section outlines cost of capital issues considered by the AER, and illustrates the sequence of events and decision making which eventually led to the AER's decisions being overturned in appeal by the Tribunal.
11. Specifically this section considers decisions made by the AER, and overturned by the Tribunal, in relation to the selection of averaging period and the resulting market risk premium, the determination of debt risk premium, and the determination of gamma.
12. First, in regards to the selection of averaging period, we review the AER's decision to set EnergyAustralia's (now AusGrid) averaging period at a time of simultaneously;
 - historically low yields on Commonwealth Government Securities (CGS), which were used by the AER to proxy the risk-free rate; despite
 - an equity risk premium that reflected historical average levels of market risk (with this risk premium 'hard coded' into the transitional Rules governing the decision); and
 - acknowledged levels of heightened uncertainty in debt and equity markets caused by the global financial crisis (GFC) and the events surrounding the collapse of Lehman's Brothers.
13. Second, in regards to determining the debt risk premium, we review the AER's decision to rely upon the Bloomberg BBB fair value curve to provide a benchmark cost of debt during EnergyAustralia's averaging period, and to then subsequently rely on CBASpectrum's BBB+ fair value curve during ActewAGL's and JGN's averaging periods when, at each of these times, it was using a methodology and dataset biased to select the lower of the two benchmarks.
14. Third, in regards to determining gamma, we review the AER's decision in the Statement of Regulatory Intent (SoRI) to raise the value of gamma from 0.50 to 0.65, later also used for Energex, despite evidence supporting considerably lower values.

2.1. Selection of averaging period

15. In this sub-section we review the selection of averaging period, and resulting market risk premium, in the context of the AER's decision for EnergyAustralia.
16. EnergyAustralia's proposed and revised averaging periods were rejected by the AER in favour of its preferred averaging period – a period which occurred at a time during which yields on CGS were close to historic lows. The historically low yields on CGS, in combination with fixed cost of equity parameters, led to a very low cost of equity at a time of market turmoil. The Tribunal overturned the AER's decision and substituted EnergyAustralia's revised proposal as the averaging period.



17. This decision provides a case-study of how the AER relied upon a narrow interpretation of the Rules and, in our opinion, “turned a blind eye” to the effect that its decision was going to have on the overall rate of return allowed to EnergyAustralia and the other electricity network service providers that its decision was affecting. The Tribunal found that setting an overall rate of return commensurate with the risks faced in providing the relevant services was required by the NEL and the Rules to achieve the NEO.

2.1.1. Regulatory timeline

18. In its regulatory proposal, submitted on 2 June 2008, EnergyAustralia proposed an averaging period beginning immediately subsequent to that proposal. CGS yields during this period were in excess of 6.5%. Under the Rules as interpreted later by the Tribunal, the AER could not unreasonably reject the averaging period proposed by EnergyAustralia.²
19. By the time of the AER’s draft decision on 28 November 2008, CGS yields had fallen to about 4.5%. The AER exercised its discretion to reject EnergyAustralia’s proposed averaging period on the grounds that it was not proximate to the beginning of EnergyAustralia’s five year regulatory period. The AER considered that this was inconsistent with established regulatory practice and also inconsistent with the theory of the CAPM.³
20. EnergyAustralia’s revised proposal was submitted to the AER in mid-January 2009. At that time, yields on 10-year CGS had dipped to below 4%. It was clear at that stage that CGS yields were unusually low compared to historic levels. EnergyAustralia submitted a report from CEG which explained that:⁴
 - the low CGS yields were the result of a “flight to safety” by investors who were concerned about instability as a result of the GFC;
 - that low CGS yields are typically associated with high equity risk premiums (i.e. one is generally the ‘flipside’ of the other); and
 - that using these CGS yields in the context of a cost of equity formulae also utilising fixed MRP and equity beta estimates would cause the AER to underestimate the cost of equity and hence the overall cost of capital, thus not achieving the requirements of the Rules or the NEO.
21. Based upon this report, EnergyAustralia proposed a revised averaging period ending on 5 September 2008, which it submitted was reasonable given the circumstances.

² Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8 (12 November 2009), para. 116

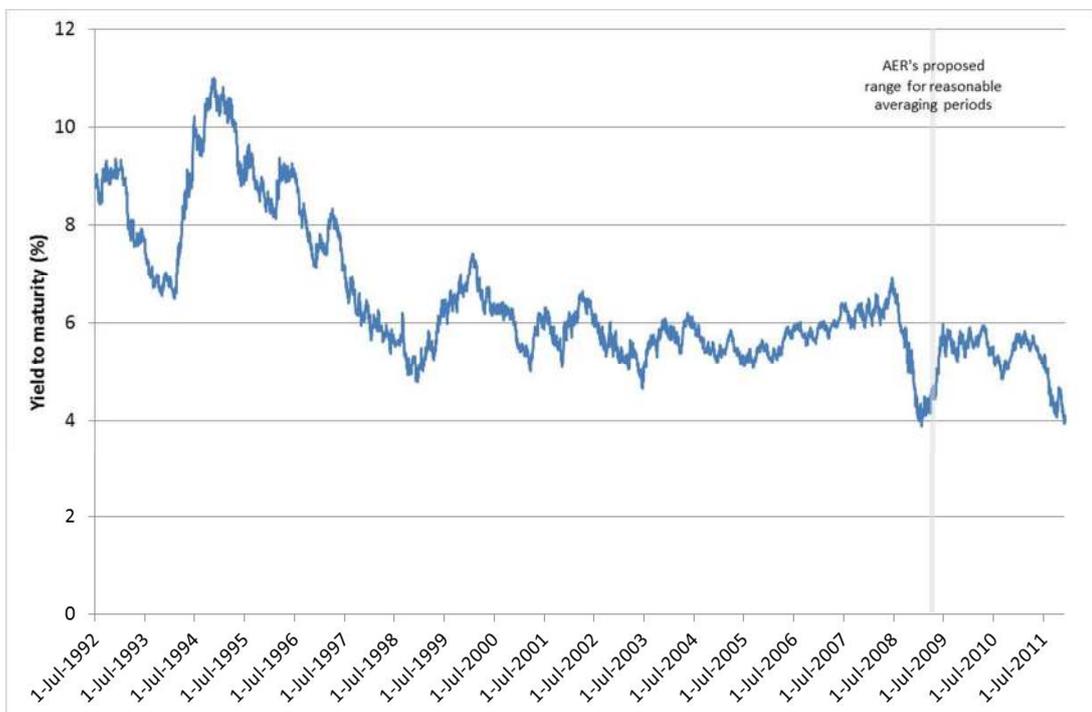
³ AER *Draft decision: New South Wales draft distribution determination*, 28 November 2008, pp. 223 - 224

⁴ CEG, *Rate of return and the averaging period under the National Electricity Rules and Law*, January 2009.



22. The AER's final decision in April 2009 rejected these arguments. The AER considered that setting the averaging period so as to achieve a reasonable estimate for the cost of equity and by corollary the cost of capital was a *de facto* method of amending the MRP which it was unable to do under the Transitional Rules in place at the time..⁵
23. This timeline of events can best be understood by reference to Figure 1 and Figure 2 below, which show (respectively) the full history of 10-year interpolated CGS yields, and a shorter history of the same yields highlighting relevant dates and periods during the regulatory process outlined above.

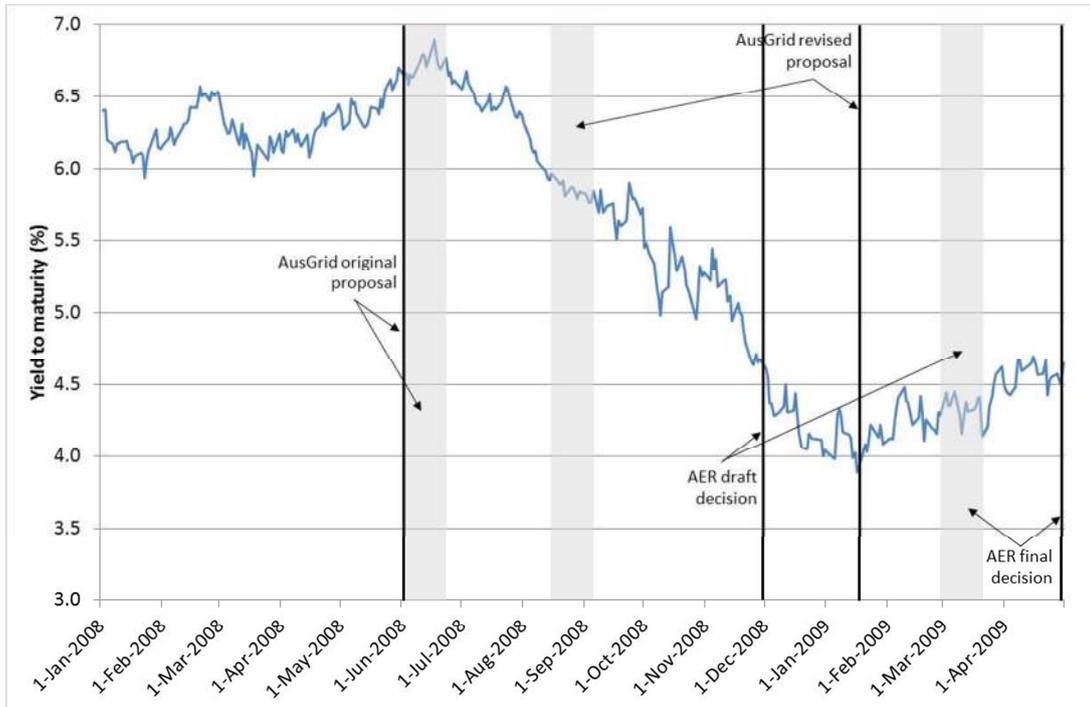
Figure 1: Yields on interpolated 10-year CGS, 1 July 1992 to present



Source: RBA data, CEG analysis

⁵ AER Final decision: New South Wales distribution determination, April 2009, p. 223

Figure 2: Timeline of events against yields on interpolated 10-year CGS



Source: RBA data, CEG research and analysis

2.1.2. Tribunal decision

24. The Tribunal agreed that using historically low risk free rates (associated with a time of crisis) in conjunction with a fixed MRP was likely to underestimate the cost of equity. Tribunal stated:⁶

The Applicants submitted that these facts demonstrated that basing a risk free rate on the AER's specified averaging periods would not achieve the objective of an unbiased rate of return consistent with market conditions at the date of the final decision. They appealed to expert opinion that the market risk premium was far higher than its deemed value while the risk free rate was abnormally low, so that the return required by investors was much higher than the AER's specified averaging period would generate.

...

The Tribunal considers that an averaging period during which interest rates were at historically low levels is unlikely to produce a rate of return appropriate for the regulatory period.

⁶ Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8 (12 November 2009), paras. 112-114



25. The Tribunal ruled that the AER had acted unreasonably in withholding agreement to the averaging period originally proposed by EnergyAustralia.
26. The Tribunal characterised the AER's approach as follows⁷:

The AER argued that the decrease in official (ie, short term) interest rates – a policy response to the softening economic outlook – should not be ignored and that the AER could not assume that a low risk free rate was a short term phenomenon. It considered that the February 2009 averaging periods did not represent an abnormal period in relation to the observed CGS yields. The AER submitted that any argument that the actual market risk premium was out of kilter with the deemed value could not justify choosing an averaging period so as to consciously generate a higher risk free rate in compensation, nor would such a method of choice be permissible under the Rules.

27. However, the Tribunal found this to be to narrow a reading of the requirements of the Rules. The Tribunal noted that the NEL and the Rules require that prices set by the AER should allow a rate of return to the network service provider that is “commensurate with the regulatory and commercial risks involved in providing the service”.⁸ The Tribunal stated that:⁹

It is well accepted in the literature of regulatory economics and in regulatory practice that all these efficiency objectives are in principle met by setting prices for services that allow the recovery of efficient costs, including the cost of capital commensurate with the riskiness of the investment in the assets (infrastructure or ‘system’, as the term is used in the NEL) used to provide services. (paras 79, 80)

28. That is, the efficiency which is enshrined in the NEO can be achieved setting the cost of capital at a reasonable level as set out in the NEL and the Rules. The Tribunal went on to explain that it considered that using an averaging period in which CGS yields were at historically low levels would likely not produce an overall rate of return appropriate for EnergyAustralia's averaging period.¹⁰

2.1.3. Strategic non-disclosure of AER views

29. Notably, the final statement and decision in relation to the review of WACC parameters (the SoRI) was released only days after the AER's final decision on EnergyAustralia's revised regulatory proposal. In this review, the AER decided to increase the MRP to apply to its regulatory decisions on electricity networks to 6.5%, higher than the 6.0%

⁷ Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8 (12 November 2009), para. 113

⁸ Ibid, para. 79

⁹ Ibid, para. 80

¹⁰ Ibid, para. 114



that it had historically applied and which it was required to apply to EnergyAustralia under the transitional Rules.¹¹

The AER considers that prior to the onset of the global financial crisis, an estimate of 6 per cent was the best estimate of a forward looking long term MRP, and accordingly, under relatively stable market conditions—assuming no structural break has occurred in the market—this would remain the AER’s view as to the best estimate of the forward looking long term MRP.

However, relatively stable market conditions do not currently exist and taking into account the uncertainty surrounding the global economic crisis, the AER considers two possible scenarios may explain current market conditions:

- *that the prevailing medium term MRP is above the long term MRP, but will return to the long term MRP over time, or*
- *that there has been a structural break in the MRP and the forward looking long term MRP (and consequently also the prevailing) MRP is above the long term MRP that previously prevailed.¹²*

30. However, in the EnergyAustralia final decision the AER reserves its position and does not concede that the best estimate of the prevailing MRP is above 6% (i.e. the primary basis of EnergyAustralia’s position). The words the AER used were:

*The AER considers that any implied (or actual) MRP changes cannot be addressed in this final decision. The AER notes that **even if** the MRP has increased somewhat over the last 12 months, it is unclear as to the margin of increase or whether there is an accepted theoretically sound methodology to take account of time varying MRP. The AER considers that a reasonable conclusion that can be drawn from current equity prices (if at all) would only be that the investors’ perception of risk appears to have changed recently. [Emphasis added]¹³*

31. By not conceding the fact that its best estimate was that the MRP had increased, even though the AER would concede this in a decision released 3 days later, the AER eliminated the possibility of that agreement being a fact that the Tribunal could take into account in a subsequent appeal by EnergyAustralia.

¹¹ AER Review of the weighted average cost of capital (WACC) parameters, May 2009, pp. 175-238

¹² Ibid, p. 238

¹³ AER Final Decision: New South Wales distribution determination, 28 April 2009, p. 592



2.1.4. Regulator's reflection on this error since

32. Recent regulatory decisions by both the AER and the ERA suggest that they have not understood the lessons from the Tribunal's EnergyAustralia decision, nor do they seem to have lost its appetite to use discretion in this way.
33. In particular, both the AER and the ERA have recently published (draft and final respectively) decisions that set the risk free rate at historically low levels - associated with dramatic falls Australian Government bond rates, in turn associated with the evolving European sovereign debt/banking crisis. In the ERA's decision (October 2011) it continued to set an MRP of 6%, despite a dramatic fall in risk free rates. In the AER's draft decision (November 2011), the AER actually determined to use its discretion to *reduce* the MRP from 6.5% as set out in the SORI to 6.0%.¹⁴
34. The table below compares the CAPM parameters used in these decisions compared to the parameters rejected by the Tribunal as in error in EnergyAustralia.

Table 1: Cost of equity estimates

Parameter	Tribunal correction to AER error	AER decision (pre Tribunal correction)	AER in Aurora Energy (draft)	ERA in DBNGP (final)
Real risk free rate	3.3%	1.8%	1.6%	1.0%
Beta	1.0	1.0	0.8	0.8
MRP	6.0%	6.0%	6.0%	6.0%
Real cost of equity	9.3%	7.8%	6.4%	5.8%

Source: Regulator's decisions

35. This table demonstrates that the AER/ERA has set the same MRP but a materially lower risk free rate than the AER set in the EnergyAustralia decision (which the Tribunal subsequently overturned). Moreover, this is in the context of the AER/ERA having lowered the equity beta by 20% from 1.0 to 0.8. The effect of this is that the ERA final decision for DBNGP sets a real risk free rate almost half the value that the Tribunal found in EnergyAustralia was:

[...] unlikely to produce a rate of return appropriate for the regulatory period.

36. Moreover, this is a full 2% lower than the cost of equity that the Tribunal overturned in EnergyAustralia, and a full 3.5% lower than the value that resulted from the Tribunal correction of the AER errors.

¹⁴ See ERA *Final Decision: Proposed Revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline*, October 2011; and

AER *Draft decision: Aurora Energy distribution determination*, November 2011



37. In our view these decisions are in error because they have failed to adapt the MRP to reflect the prevailing conditions in the market for funds and, consequently, set an MRP that is inconsistent with the risk free rate estimate. Under the current Gas and Electricity (distribution) Rules, the failure of the AER/ERA to use its discretion to correct for this error can be appealed.¹⁵ Under the AER's proposed Rules the failure of the regulator to use its discretion could not be appealed.

2.1.5. Implications for AER proposed Rule change

38. The one 'safety valve' that the AER proposed Rule change incorporates to prevent it falling into the error found by the Tribunal would be if the regulator used its discretion to commence a WACC review immediately once events caused dramatic shifts in the risk free rates (such as those the effect of which is depicted in the figure above). This assumes that:
- It is administratively feasible to complete a WACC review in the time necessary for it to feed into the regulatory decisions (and another WACC review if risk free rates dramatically return back to previous levels); and
 - The AER/ERA would be willing to use their discretion to avoid such error.
39. In relation to the first assumption, this simply may not be possible. Risk premiums and risk free rates move so materially in short periods of time (see Figure 2 above) that it may simply be impossible to hold a full WACC review in the necessary time. Moreover, even if it was possible, it would not mean that the same parameters would apply for another five years – indeed that almost certainly would not be the case.¹⁶
40. In relation to the second assumption, we note that the recent decisions of the regulators, discussed above, suggest that they may not be willing to exercise discretion to make sure that the WACC parameters are internally consistent (the MRP is internally consistent with the risk free rate).

2.1.6. Summary

41. In our opinion, the AER took a highly legalistic approach to interpreting the requirements of the Rules that was ultimately found to be incorrect by the Tribunal. We believe that the AER's likely intention in adopting this narrow interpretation of the Rules was to set the rate of return allowed to EnergyAustralia at a particular level. This was also observed by the Tribunal, which stated:¹⁷

¹⁵ Or, in the case of the Aurora Energy decision, the willingness of the AER to use its discretion to make the error worse by reducing the MRP just when risk free rates are at historically low levels.

¹⁶ For example if risk free rates returned to 'normal' so likely would MRP. Thus, setting MRP to reflect abnormal levels of the risk free rate at the time of a decision is only appropriate while abnormal levels of the risk free rate prevail. It will not in general be appropriate for the next 5 years.

¹⁷ Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8 (12 November 2009), para. 93



It is useful to consider on what basis the AER might reasonably withhold agreement to an averaging period proposed by an NSP. The only clear ground is that the period proposed would be likely to generate a rate of return that was inappropriate, ie, too high or too low having regard to the period in which it was to be applied. No doubt that is the ground that the AER ultimately had in mind when it did withhold agreement. Bolstered by regulatory practice and economic expert opinion, it considered that setting the risk free rate and hence the rate of return so far ahead of the period to which it would apply was less likely to provide an appropriate return than was setting the rate of return at a period closer to when it would apply.

42. We consider that the discretion applied by the AER in this case was exercised to follow a narrow legal interpretation of the requirement of the Rules. The result of this exercise of discretion was that the AER set a rate of return that was considered by the Tribunal to be too low and inconsistent with the NEO.
43. The AER and the ERA have not been deterred from adopting even lower risk free rates in conjunction with a 6% MRP in recent decisions.

2.2. Determining the debt risk premium

44. In this sub-section we review the determination of the debt risk premium, first in the context of three decisions made by the AER in which it selected between Bloomberg and CBASpectrum benchmarks for the debt risk premium, and second, the determination of the debt risk premium over time.
45. On three occasions the AER has issued a final decision selecting between Bloomberg and CBASpectrum benchmarks for the cost of debt. On each occasion the methodology it used resulted in it selecting the lower of the two benchmarks. For ActewAGL¹⁸ and JGN¹⁹ the AER's decision was overturned by the Tribunal. For EnergyAustralia and the New South Wales electricity network service providers²⁰ the AER's decision was upheld.
46. With respect to the debt risk premium over this period, the AER chose to interpret the definition of the cost of debt benchmark under the Rules in the narrowest way possible. The effect of this interpretation was that the AER did not seek out, and did not have proper regard to (once it was identified to it in the latter two decisions that were successfully appealed), a broader set of information that would have been determinative in its choice between the two cost of debt benchmarks.

¹⁸ Application by ActewAGL Distribution [2010] ACompT 4 (17 September 2010)

¹⁹ Application by Jemena Gas Networks (NSW) Ltd (No 5) [2011] ACompT 10 (9 June 2011)

²⁰ Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8 (12 November 2009)



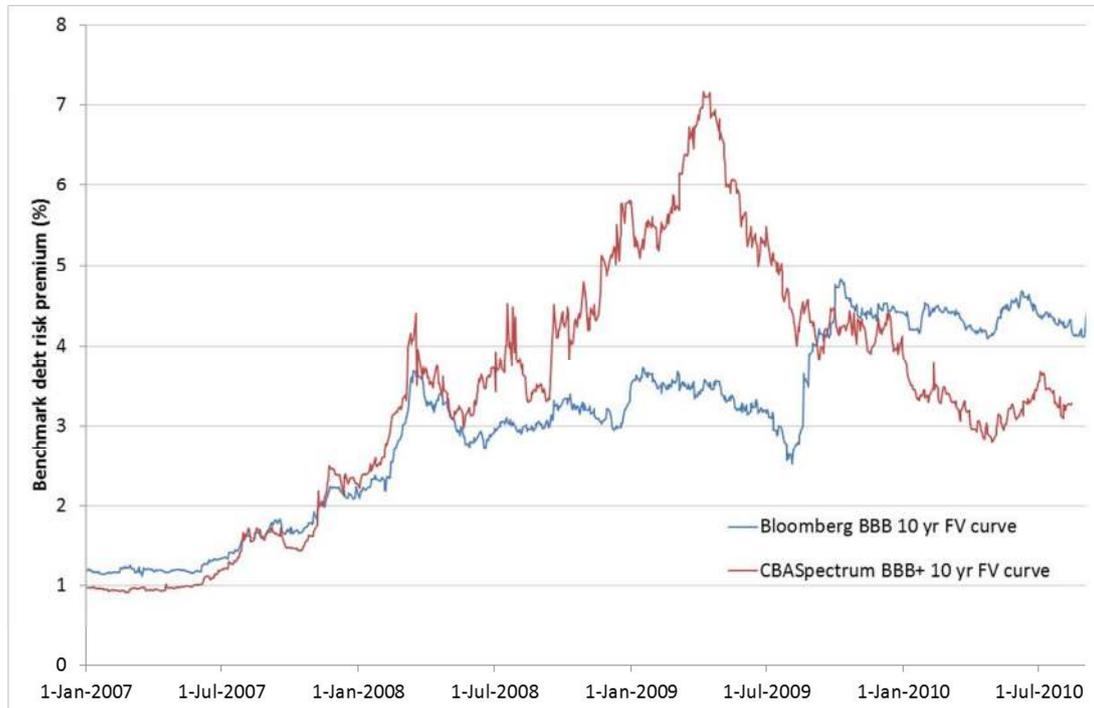
2.2.1. Background

47. Historically, regulators in Australia have relied upon one or both of Bloomberg or CBASpectrum to inform their estimates of the debt risk premium (DRP).²¹ In the context of estimating a 10-year yield on BBB+ rated corporate debt, the two benchmark figures have been relied upon were:
- the CBASpectrum 10-year BBB+ fair value; and
 - the Bloomberg BBB fair value, at:
 - 10 years until 9 October 2007;
 - extrapolated from 8 years to 10 years using Bloomberg A fair value estimates until 18 August 2009; and
 - extrapolated from 7 years to 10 years using Bloomberg AAA fair value estimates until 22 June 2010.²²
48. During 2008, with the increasing effects of the GFC affecting financial markets, the Bloomberg and CBASpectrum benchmark began to diverge to an extent not previously seen. The extent of this divergence only became apparent during June and July of that year. Initially, the CBASpectrum benchmark rose above Bloomberg's, and the level of divergence became particularly extreme over the first half of 2009.
49. Toward the end of 2009, the Bloomberg benchmark rose whilst the CBASpectrum benchmark fell such that they both reported levels around 4.0% to 4.5%. Subsequently, Bloomberg's benchmark stayed at this level while CBASpectrum's fell to as low as 3.0% before it was discontinued in August 2010. A time series of movement in these benchmarks is illustrated in Figure 3 below.

²¹ CBASpectrum fair value estimates were later discontinued in August 2010.

²² Beyond 22 June 2010 another method has been used which continues to rely upon Bloomberg AAA fair value estimates in the period leading up to 22 June 2010.

Figure 3: Divergence between Bloomberg and CBASpectrum 10-year cost of debt benchmark estimates



Source: Data from Bloomberg, CBASpectrum and RBA. CEG analysis.

50. In this sub-section, we discuss three final decisions made by the AER to choose between the Bloomberg and CBASpectrum benchmarks during this period of divergence.

2.2.2. Regulatory timeline

51. EnergyAustralia's regulatory proposal to the AER proposed to continue the AER's use of Bloomberg as its preferred data source, referencing the approach taken in the earlier SP AusNet decision.²³
52. By the time of the draft decision in November 2008, the gap between CBASpectrum and Bloomberg was readily apparent, with CBASpectrum fair value yields trending around 1% higher than Bloomberg. In its draft decision, the AER referred to work that it had undertaken in its draft decision for Powerlink which it claimed demonstrated that:

"Bloomberg provides estimates of BBB+ rated long-term fair yields, which are more consistent with the observed yields of similarly rated actual bonds"²⁴.

²³ EnergyAustralia Regulatory Proposal, June 2008, p. 109

²⁴ AER Draft decision: New South Wales draft distribution determination, 21 November 2009, p. 225



53. This review was conducted during a period during which the gap between Bloomberg and CBASpectrum was not at all comparable to the gap at the time of the draft decision. The AER did not cite any update of this analysis that it had conducted for the period immediately prior to its draft decision.
54. In its revised proposal, EnergyAustralia proposed a DRP based on the mid-point between Bloomberg and CBASpectrum. In doing so, it relied up a CEG report which stated that, given the level of uncertainty in the bond markets, the most reliable thing for the AER to do would be to place equal weight on the two benchmark providers.²⁵
55. The AER's final decision rejected this reasoning and updated the analysis referred to earlier in the Powerlink decision for the averaging period. This analysis had regard to only bonds that:
- were fixed rate bonds (not floating);
 - were rated BBB+ with Standard & Poor's (and not BBB+ with other credit ratings agencies or a similar rating such as BBB and A-);
 - had two or more years to maturity;
 - reported yield data available from each of Bloomberg's BGN field, CBASpectrum and UBS;
 - were issued in Australia; and
 - were issued by an 'Australian' firm.
56. Not all of these criteria were immediately apparent in the EnergyAustralia decision, but became clear as the AER was forced to explain its approach in more detail in later decisions.²⁶ Application of these criteria resulted in the identification of just four suitable bonds. The AER concluded on the basis of yields on these four BBB+ bonds that the lower of the two benchmarks, Bloomberg, was appropriate to rely upon to estimate the DRP during EnergyAustralia's averaging period.²⁷
57. During three later draft decisions (for ActewAGL, Country Energy (now Envestra Wagga Wagga) and JGN) the AER relied upon the same methodology to select the cost of debt benchmark. On each occasion, the application of this methodology selected the lower of the two benchmarks, which was CBASpectrum at that time. In response to the AER's draft decision, Country Energy commissioned a report from CEG in January 2010. In that context, we stated that the AER's approach was too narrow and should also have regard to:²⁸

²⁵ EnergyAustralia *Revised Regulatory Proposal and Interim Submission*, January 2009, p. 72

²⁶ AER *Draft decision: Access arrangement proposal for the ACT, Queanbeyan and Palerang gas distribution network*, 11 November 2009, p. 222

²⁷ AER *Final decision: New South Wales distribution determination*, 28 April, 2009, p. 232

²⁸ CEG, *Testing the accuracy of Bloomberg vs CBASpectrum Fair Value Estimate*, January 2010, p. 7



- the yields on fixed coupon BBB+ bonds that are covered by one or two of UBS, CBASpectrum or Bloomberg but not all three;
 - the estimated yields on BBB+ floating rate bonds (once swapped into an equivalent fixed rate yield);
 - the estimated yields on bonds that do not have a BBB+ rating (such as BBB or A-rated bonds); and
 - the estimated yields on bonds that are issued in Australia by foreign companies.
58. In the AER's final decision for ActewAGL in March 2010, the AER adopted an unchanged methodology by relying just on a limited sample of BBB+ fixed rate bonds with yields available from all three sources. It concluded from this analysis that CBASpectrum, the lower of the two curves, was the best fit.
59. The AER considered CEG's report for Country Energy in this decision. It expressed the view that although some of the information identified by CEG was 'valuable', it had 'limitations' and therefore could not appropriately be used to identify which of the Bloomberg or CBASpectrum debt benchmarks was the best. Specifically, the AER expressed the view that the benchmark bond had the features described above and that bonds with other features were not readily comparable to this.²⁹
60. Despite this view, the AER presented a series of charts identifying some of the additional information suggested by CEG against its preferred CBASpectrum fair value curve. It considered that these data did not provide any reason for it to depart from this benchmark.³⁰
61. In a later final decision for JGN in June 2010, the AER did not refer to the CEG report for Country Energy and implemented its analysis without reference to the additional information raised in that report.³¹

2.2.3. Tribunal decision

62. In each of the EnergyAustralia, ActewAGL and JGN cases, the AER's decision to choose the lower of the two cost of debt benchmarks was appealed.
63. In the first case brought to the Tribunal, by EnergyAustralia, the Tribunal found in favour of the AER on this issue. However, at that stage no clear information had been brought to the AER's or Tribunal's attention about the effect of the AER's restrictive interpretation of the benchmark bond, and this line of argument was not relied upon by EnergyAustralia.

²⁹ AER *Final decision: Australian Capital Territory distribution determination*, 28 April 2009, p. 48

³⁰ *Ibid*, pp. 53-56

³¹ AER *Final decision: Jemena Gas Networks Access arrangement proposal for the NSW gas networks*, June 2010



64. In the second case brought to the Tribunal, by ActewAGL, the Tribunal found that the AER was in error in relying upon the yields of just five BBB+ fixed rate bonds in selecting the CBASpectrum cost of debt benchmark. The Tribunal found that the AER's dataset was not large enough to provide reliable results – especially when there was a much larger set of information available, as identified by CEG, which did not support the AER's conclusions.
65. In contrast to the AER's assessment, the Tribunal saw no impediment to the inclusion of bond yields which did not have data from all three sources, that were for floating rate bonds or that were for bonds of different credit ratings. The Tribunal described the regard had by the AER to this information as 'superficial' and found in favour of ActewAGL.³²
66. The Tribunal later found in favour of JGN based on similar reasoning to that put forward in the case of ActewAGL. In fact, the Tribunal criticised the AER's reliance on (in this case) just six bonds and determined that proper regard to the full data set available resulted in the adoption of the Bloomberg curve (i.e. not CBASpectrum or an average of the CBASpectrum and Bloomberg curves).

2.2.4. Inconsistency of reasoning over time

67. Over the averaging period applied to EnergyAustralia by the AER (from 2 March 2009 to 20 March 2009) there was very significant divergence between the Bloomberg and CBASpectrum benchmark estimates, as shown in Figure 3 above. The test applied by the AER selected Bloomberg, the lower of the two, over the revised proposal by EnergyAustralia to rely upon the mid-point.
68. It was put to the AER by EnergyAustralia that sole reliance upon Bloomberg would be unreasonable because it had failed to react to the events of the GFC and particularly the collapse of Lehman's in September 2008. On the other hand, the CBASpectrum benchmark and representative bond yields reported by the RBA had clearly reacted to these events by increasing sharply, as one might expect.³³ However, while the document containing this analysis was noted by the AER in its final decision,³⁴ none of the reasoning by which the AER subsequently decided to place sole weight on the Bloomberg benchmark referenced it or had any regard to the facts raised within it.
69. Subsequently, the CBASpectrum benchmark fell below the Bloomberg benchmark, and the AER's test selected that as 'best aligned' to bond yields in its ActewAGL and JGN decisions. Once the CBASpectrum fair value service was discontinued, there was only a single independent cost of debt benchmark available, from Bloomberg. Instead of sole reliance upon this, the AER has instead (until the Aurora draft decision)

³² Application by ActewAGL Distribution [2010] ACompT 4 (17 September 2010), paras. 39-63

³³ CEG, *Update to previous analysis*, 25 March 2009

³⁴ AER *Final decision: New South Wales distribution determination*, 28 April 2009, p. 225



moved its analysis to considering whether to rely upon Bloomberg's cost of debt benchmark or an amalgam of this with the yield on an APA Group bond.

70. In the context of these considerations for Envestra South Australia, the AER noted that the behaviour of the Bloomberg cost of debt benchmark was, in its view, illogical during the GFC:³⁵

... one should generally observe the DRP moving inversely to returns in the equity market. That is, during a bull market when equity returns are strong, the risk of default on debt should be comparatively low. Conversely, as the equity market falls, and the risk of default across the market increases, the debt risk premium demanded by investors should logically increase. While both the CBASpectrum and Bloomberg series increased in line with deteriorating equity market returns, Bloomberg's spreads continued to increase with improving conditions in the equity market (implying increasing default risk). Indeed, the Bloomberg DRP was actually higher in December 2010 than at any time in recent history including periods spanning the GFC. In contrast, the CBASpectrum fair value yield curve gradually declined in accordance with improved equity market conditions.

71. This reasoning was used to support its view that the Bloomberg benchmark may not be representative of bond spreads at longer maturities. This is precisely the same reasoning that was ignored by the AER in 2009 when put forward by EnergyAustralia, at a time when Bloomberg was the lower of the two benchmarks because it had failed to increase in the wake of the Lehman Brothers collapse.
72. This example is raised to show that the pattern of reasoning by the AER has been inconsistent over time. This evidence provides some support for a conclusion that the AER's decisions on DRP during the worst of the GFC and since have been consistent with containing the growth of the DRP allowed the NSPs, rather than finding and setting the best estimate under the Rules.

2.2.5. Determination of the DRP since JGN

73. In the next final decision after the appealed and amended JGN decision (in which the Tribunal rejected the AER's DRP of 2.93 based on CBASpectrum and determined a DRP of 4.17 based on Bloomberg) the AER determined the DRP by giving a weighting of 25% to a single bond issued by APA Group and a weighting of 75% to Bloomberg. This decision related to the Victorian electricity distribution network service providers, and generated DRP estimates in the range 3.7 to 4.05.³⁶

³⁵ AER, *Draft decision: Access arrangement proposal for the SA gas network*, 17 February 2011, p. 270

³⁶ AER *Final decision: Victorian electricity distribution network service providers distribution determination*, October 2010, p. xxxix

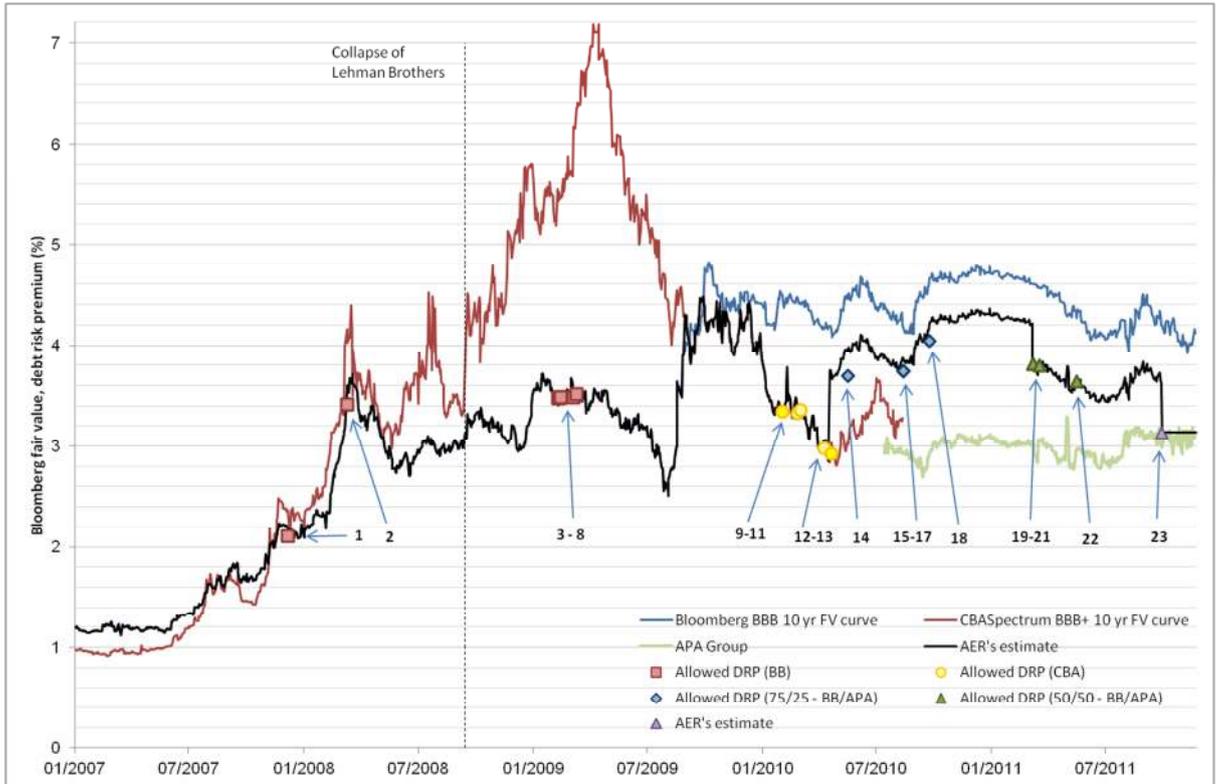


74. In the next final decisions after the Victorian electricity distribution services providers' decision, relating to APT Allgas in Queensland, Envestra in South Australia and Queensland and the Amadeus Gas Pipeline in the Northern Territory, the AER determined DRP by giving a weighting of 50% to the bond issued by APT and a weighting of 50% to Bloomberg. This generated DRP estimates in the range 3.64 to 3.81.³⁷
75. In its most recent draft decision, relating to Aurora in Tasmania, the AER has determined the DRP based on the average of observed bond yields from the market. The AER's methodology has resulted in an indicative benchmark DRP of 3.14, based on a sample of 9 bonds with an approximate average term to maturity of 10 years and rated between BBB and A-.³⁸
76. The figure below illustrates the AER's decisions in regards to DRP over time (see Table 2 below for a legend to the figure).
77. The figure illustrates that:
- The AER methodology chose the lower of the Bloomberg and CBASpectrum fair value curve for all decisions made prior to the handing down of the ActewAGL decision;
 - The AER's methodology was then overturned by the Tribunal which instructed in ActewAGL that the AER should give 50% weight to the higher Bloomberg curve and then, in JGN, 100% weight to the Bloomberg curve.
 - The AER responded to these instructions in subsequent decisions by:
 - giving 75% weight to the Bloomberg curve and 25% weight to the APA bond (which had lower DRP than CBASpectrum during the period they overlapped);
 - giving 50% weight to the Bloomberg curve and 50% weight to the APA bond;
 - giving 0% weight to the Bloomberg curve and 25% weight to the average of a newly formed AER sample (which gave an only 0.11% higher DRP than giving 100% weight to the APA bond).
78. As a matter of fact, the AER's original methodology chose the lowest fair value curve (be that CBASpectrum or Bloomberg). Following the ActewAGL and JGN appeals, the AER has changed methodology three times – each time reducing the weight given to the only available fair value curve and lowering the estimated DRP in the process. .

³⁷ See: AER *Final decision: APT Allgas Access arrangement proposal for the Qld gas network*, 17 June 2011, p. 37
AER *Final decision: Envestra Ltd Access arrangement proposal for the SA gas network*, 17 June 2011, p. 54
AER *Final decision: Envestra Ltd Access arrangement proposal for the Qld gas network*, 17 June 2011, pp. 49 – 50
AER *Final decision: N.T. Gas Access arrangement for the Amadeus Gas Pipeline*, 20 July 2011, p. 78

³⁸ AER *Draft Distribution Determination: Aurora Energy Pty Ltd*, November 2011, p. 241

Figure 4: AER's DRP decisions over time



Source: Bloomberg, CBASpectrum, AER and Tribunal decisions.



79. The table below summarises the decisions in the figure above.

Table 2: AER DRP decisions over time

#	Determination relating to:	Approximate middle of averaging period:	AER's DRP	AER DRP based on:
1	SPAusnet	7 December 2007	2.11	Bloomberg
2	ElectraNet	10 March 2008	3.42	Bloomberg
3	CountryEnergy	10 February 2009	3.48	Bloomberg
4	EnergyAustralia	10 February 2009	3.48	Bloomberg
5	Transgrid	13 February 2009	3.49	Bloomberg
6	ActewAGL	13 February 2009	3.49	Bloomberg
7	Transend	6 March 2009	3.49	Bloomberg
8	Integral Energy	11 March 2009	3.52	Bloomberg
9	ActewAGL	1 February 2010	3.35 (Amended by Tribunal)	CBASpectrum
10	Energex/Ergon Energy	26 February 2010	3.33	CBASpectrum
11	CountryEnergy	3 March 2010	3.36	CBASpectrum
12	ETSA Utilities	9 April 2010	2.98	CBASpectrum
13	JGN	21 April 2010	2.93 (Amended by Tribunal)	CBASpectrum
14	JEN	17 May 2010	3.7	75/25 – BB/APA
15	CitiPower	13 August 2010	3.74	75/25 – BB/APA
16	Powercor	13 August 2010	3.74	75/25 – BB/APA
17	United Energy	13 August 2010	3.74	75/25 – BB/APA
18	SPAusnet	24 September 2010	4.05	75/25 – BB/APA
19	Envestra	8 March 2011	3.81	50/50 – BB/APA
20	Envestra	8 March 2011	3.81	50/50 – BB/APA
21	Amadeus	18 March 2011	3.8	50/50 – BB/APA
22	APT Allgas	17 May 2011	3.64	50/50 – BB/APA
23	Aurora	30 September 2011	3.14	AER estimate

Source: AER and Tribunal decisions

2.2.6. Summary

80. It is our opinion that in relation to EnergyAustralia, ActewAGL and JGN the AER used its discretion to apply an extremely narrow interpretation of the 'benchmark bond' set in the Rules to attempt to justify its preferred cost of debt benchmark. The effect of the methodology that it applied was always to select the lower benchmark, being at first Bloomberg and later CBASpectrum. When a wider set of information showing that the cost of debt at that time was much higher than that allowed by the AER, it did not have proper regard to it. Following these appeals, the AER has changed methodology three times – each time reducing the weight given to the only available fair value curve and lowering the estimated DRP in the process.



2.3. Determining gamma

81. This sub-section relates to gamma, specifically the AER's decision in the Statement of Regulatory Intent (SoRI) and later for Energex to choose a value for gamma of 0.65 despite evidence emerging supporting considerably lower values – evidence which subsequently resulted in the Tribunal determining a significantly lower value for gamma of 0.25.
82. The persistence on the part of the AER to stick to its point estimate of 0.65 for gamma - despite the persuasive evidence before it that the value should indeed be lower - highlights the danger with locking in cost of capital parameters into the Rules without the option for review other than if instigated by the AER.

2.3.1. Regulatory timeline

83. In May 2009, the AER published the SoRI which set the assumed utilisation of imputation credits (gamma) at 0.65.
84. The gamma is a measure of the value of imputation credits. It is defined as the product of the imputation credit pay-out ratio and the 'utilisation rate', or theta.
85. In the SoRI the AER determined a lower bound estimate of theta 0.57 based on empirical evidence from a 2006 study by Beggs and Skeels using data from 2001 - 2004. The AER further determined an upper bound estimate of 0.74, based on a 2008 study by Handley and Maheswaran from the post July 2000 period. The AER also considered a study by SFG, but placed little weight on this study for the purposes of the final decision. This was despite the SFG study providing more up-to-date estimates.
86. The two estimates for theta were applied with an estimate of the pay-out ratio of 1.0, consistent with the Officer WACC framework, resulting in a lower and upper bounds for gamma of 0.57 and 0.74 respectively. The AER for the purposes of the final SoRI gave equal weight to the two empirical estimates, resulting in a point estimate for gamma of 0.65. The value adopted for gamma prior to the SoRI was 0.50.³⁹
87. In July 2009, Energex published a regulatory proposal for the period July 2010 to June 2015. In this proposal, Energex proposed a departure from the AER's determination of a value of 0.65 in the SoRI, and submitted that a value of 0.2 was more appropriate.
88. Energex noted that a range of recent and reputable Australian studies suggested that the value of gamma had fallen considerably and may indeed have no value. Energex further observed that these studies had been reviewed and rejected in favour of the study by Beggs and Skeels from 2006, and that the AER has continued to place reliance on tax statistics (i.e. the Handley and Maheswaran study from 2008).

³⁹ AER *Review of the weighted average cost of capital (WACC) parameters*, May 2009, pp. 466 - 468



89. In the light of the AER's reliance on tax statistics analysis and the material impact this had on the final outcome, Energex commissioned its own study from Synergies, which examined available data from 2003 to 2007 and quantified the amount of credits created, the amount distributed and the amount claimed by taxpayers. The Synergies report showed that with a payout ratio of 100 percent, the maximum upper bound for gamma would be around 0.35, and that with a payout ratio of 71 percent, the maximum upper bound for gamma would be 0.23.
90. Based on the Synergies study, and also market evidence submitted by the Joint Industry Association which suggested a lower bound of zero for gamma, Energex proposed a point estimate of 0.20.⁴⁰
91. In November 2009, the AER published a draft distribution determination in which it rejected the DNSPs' regulatory proposals since it considered that the information provided did not constitute persuasive evidence for justifying a departure from a gamma of 0.65.⁴¹
92. In response to this draft decision, Energex submitted a report questioning both the estimate for theta and the payout ratio. Energex submitted evidence by SFG supporting Energex's proposed value for gamma of 0.20 (even with a 100 percent payout ratio), which was also reviewed and supported by Skeels, one of the authors of the Beggs and Skeels 2006 study upon which the AER relied on to set gamma at 0.65. Energex also questioned the AER's assumption of a payout ratio of 100 percent, and provided evidence to show that the most appropriate rate was around 70 percent.
93. Energex also noted that it raises serious questions that the established precedent of 0.50 is not even contained in the reasonable range for gamma proposed by the AER.⁴²
94. In May 2010, the AER published a final distribution determination, in which it reiterated that it considered 0.65 to be the most reasonable and reliable estimate for gamma. The AER also again claimed that SFG's estimate could not be relied upon due to data and methodological issues, and that it considers that estimates from the studies by Beggs and Skeels (2006) and Handley and Maheswaran (2008) to be best available. The AER held this opinion despite no underlying data being publicly available (or available to the AER itself) for either of the two studies, in contrast to the SFG study.⁴³

2.3.2. Tribunal decision

95. The Tribunal ruled that the AER had made an error in its treatment of both the distribution ratio and the franking credit utilisation ratio. The Tribunal determined a value of gamma of 0.25, significantly lower than the AER's value of 0.65, based on of a

⁴⁰ Energex *Regulatory Proposal*, July 2009, pp. 53 - 54

⁴¹ AER *Draft decision: Queensland draft distribution determination*, November 2009, p. xxviii

⁴² Energex *Submission on draft determination*, February 2010, pp. 10 -11

⁴³ AER *Final decision: Queensland distribution determination*, May 2010, pp. 226 - 227



distribution or payout ratio of 70 percent and a theta of 0.35. The Tribunal's estimate for theta of 0.35 was based on a March 2011 report by SFG prepared upon the directions of the Tribunal, which it noted was the only estimate in which it had confidence.

96. In front of the Tribunal, the AER argued that a principle of 'regulatory inertia' is implied under the Rules, in reference to the fact that it had just set a gamma of 0.65 in the recent SoRI decision. This argument that has echoes in its proposed insertion into the Rules to have regard to past values in setting cost of capital parameters. The Tribunal soundly rejected any view that this should take precedence over estimating an appropriate value for gamma.⁴⁴

The Tribunal accepts that due regard should be given to historical consistency in applying regulatory values over time. Nevertheless, the Tribunal, standing in the AER's shoes, is inescapably required to exercise regulatory judgment in determining the appropriate value of theta.

The Tribunal must determine an appropriate value for gamma on the basis of the material before it. It does not accept that its task is to determine a value of gamma that is appropriate and not too different from the previously determined value of gamma. That gives too little policy weight to the objective set out in s 7A of the NEL that a regulated DNSP should be provided with a reasonable opportunity to recover at least the efficient costs it incurs. That objective must outweigh any presumption of regulatory inertia. In any event, within the SORI framework by which the AER argues for the principle of regulatory inertia, the Tribunal has persuasive evidence justifying a departure from previously determined values of gamma.

2.3.3. Summary

97. The AER determined a point estimate for gamma of 0.65 in the SoRI, which it attempted to uphold through the Queensland distribution determination despite evidence being presented to it which supported much lower values. In light of the evidence available to the Tribunal, a significantly lower gamma of 0.25 was determined.
98. The AER's persistence to stick to its gamma point estimate determined in the SoRI and its unwillingness to adjust the estimate also in the light of persuasive evidence demonstrates danger with locking in WACC parameters without the option for review other than if instigated by the AER.

⁴⁴ Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9, paras. 36-37



3. Improving cost of capital decisions under the Rules

99. The cases described above illustrate examples of how the AER has used its discretion to have the effect of setting a cost of capital that:
- is too low to provide electricity network service providers with a rate of return commensurate with the prevailing conditions in the market for funds consistent with the risks in providing reference services; and
 - did not take into account a sufficient range of information to come to a good decision, particularly where this information contradicted the AER's previous views or decisions.
100. This is evidence that the AER is establishing a 'track record' of insufficient consideration of cost of capital issues in its decisions, which is reflected in its record in front of the Tribunal. In many cases the AER analysis is incomplete, with the effect that the AER arrives at a lower rate of return outcome than one would, in our opinion, arrive at with a more complete analysis. In this respect we note that conclusions made in the AER's Rule change proposal appear to reflect a belief that business's actual return on debt and equity requirements are lower than that which it has allowed.⁴⁵ To the extent that the AER has performed an exhaustive analysis to arrive at this conclusion such an analysis has not been put on the public record.
101. In this light, there is a risk that increasing the discretion for the AER generally in relation to the risk-free rate and debt premium, and specifically to lock in cost of capital parameters and methodologies every five years, is unlikely to be helpful in terms of achieving the NEO.
102. It is also relevant to consider recent public comment characterising the findings of error by the Tribunal as 'arcane' details of cost of capital issues.⁴⁶ This phraseology appears to imply that these issues are somehow abstract or not of pressing concern. A related view appears to be that some strict interpretation of unintended technicalities within the Rules has forced the AER to allow a greater cost of capital than is truly efficient.⁴⁷
103. Rather, the reverse is true. The case studies outlined in the above section suggest that the AER has been relying on legal technicalities within the Rules to adopt methodologies that have the effect of keeping down the cost of capital allowed to

⁴⁵ See for example: AER, *AER's proposed changes to the National Electricity Rules*, September 2011, pp. 65-66.

⁴⁶ The use of the word 'arcane' in this context appears to have originated in an article in the *Australian* (T. Parry, "Lawyers' picnic drives up the cost of electricity", *The Australian*, 29 June 2011). It subsequently reappeared sixteen days later in a working paper authored by Dr. Darryl Biggar for the ACCC/AER (D. Biggar, "Public utility regulation in Australia: Where have we got to? Where should we be going?", Working paper no. 4, 15 July 2011). At the ACCC Regulatory Conference 2011, the same word was used in the official program for the first session.

⁴⁷ See for instance the speech by AER Chairman to the EUAA on 20 June 2011, available at <http://www.aer.gov.au/content/item.phtml?itemId=747140&nodeId=1dd14954d228d7e719e4157a4ce48762&fn=AER%20Chairman%20Address%20to%20EUAA%2020%20June%202011.pdf>



businesses (ie, at a level that is artificially low given the current and recent economic turmoil). It is the AER that has been relying upon a strict legal interpretation of the Rules rather than businesses.

104. The AER (and the EUC) raises particular issues with the way in which the current Rules prescribe that the cost of debt is based on a benchmark that is not necessarily the same rate at which regulated NSPs raise debt. Both allege that this results in the cost of debt (and the overall cost of capital) being set too high.⁴⁸
105. However, the AER and the EUC are silent as concerns the cost of equity, which is the other component of the overall cost of capital. This is unsurprising, since the empirical evidence since the onset of the GFC suggests that the prevailing cost of equity (and particularly the MRP) has been substantially higher than allowed by economic regulators in Australia, including the AER. Some of this evidence is introduced and explained at Appendix A to this report.
106. In this context, any new set of Rules needs to ensure that the cost of capital decision making body has the expertise and incentive to properly implement the Rules in accordance with the NEO. Three possible ways in which the quality of decision making on cost of capital issues could be improved without risking the achievement of the NEO are as follows:
 - i. retain the status quo and allow more time for the AER to improve its reasoning in response to Tribunal decisions;
 - ii. give a role to an expert panel operating at arm's length to the AER to either replace or assist the AER with some of its functions as concerns deliberations on the cost of capital; or
 - iii. create and fund a consumer advocate body for small energy users that may free up the AER to play a more neutral role in its decision making.
107. What might be involved under each of these options is set out in more detail in the following sub-sections. It is important to note that we are not recommending any of these options to AusGrid or the AEMC. At this stage, we are proposing broad-brush options that could be subject to further consideration in order to develop specific recommendations. A common thread in all the options that we consider below is the right of merits review by the Tribunal on decisions made by the AER. Given the record set out at section 2 above, it would be inappropriate to consider a scenario where this right was abrogated as proposed by the AER.

3.1. Retain the status quo

108. Currently the AER's decisions on cost of capital, outlined in section 2 above, are subject to merits review by the Tribunal. So far the AER has shown no indication of

⁴⁸ References



substantial changes to its approach to assessing cost of capital decisions, and particularly the need to consider the overall cost of capital, despite successful appeals to the Tribunal.

109. However, it is important to consider that the current Rules have not been applied by the AER for an extended period of time. Indeed, no single NSP has yet had two determinations under the current Rules, and the initial SoRI was issued without the benefit of hindsight of the last two years of interactions. In this context, it may be premature to make wholesale changes to the Rules when there has never been time for their implementation to 'bed down', particularly given the large financial shocks that have affected the world over the past four years.
110. It cannot be ruled out that repeated interactions between NSPs and the AER, whether in regulatory proceedings or in front of the Tribunal, will eventually cause the current cost of capital debate to evolve into a more stable regulatory system with fewer appeals. Removing the right to merits review may well be a shortcut to this end goal, but given the AER's current record in respect of cost of capital issues, there is reason to believe that the result would not promote the NEO as well as retaining the status quo.
111. Given that the AER has made multiple proposed Rule changes, it is relevant to consider what aspects of the status quo would need to be retained to allow this scenario to play out. We consider that the most important three aspects of the current Rules in this respect are:
 - a five yearly open review of all cost of capital parameters; with
 - a 'safety valve' between reviews to allow both the AER and the NSPs to proposed changes to these parameters if changed market conditions provide persuasive evidence of such changes; and
 - the right of appeal to the Tribunal.
112. Allowing the safety valve allows the Electricity Rules to arrive at estimates consistent with the current Gas Rules (where at each decision the regulator is required to set the overall rate of return commensurate with the then prevailing conditions in the market for funds).
113. With these three elements in place we would expect that over time, assuming continued regulatory interactions and the eventual return of financial stability, the application of regulation under the current Rules would evolve towards a model where:
 - the AER employs methodologies that have been scrutinised, assessed and accepted in multiple regulatory proceedings; and
 - the quantity of material put forward by NSPs and their propensity to appeal is diminished as the AER's decision making improves and the prospect for positive consideration by the AER of alternatives or on appeal to the Tribunal is lessened.



3.2. Appoint an expert panel

114. In its role as the regulator for over twenty different electricity and gas NSPs, the AER hears many of the same or similar arguments on a repeated basis, particular on the cost of capital where similar issues apply across all businesses. The AER's Rule change proposal reveals a level of exasperation with this feature of the current regulatory framework.
115. Given the examples of decisions made to date under the Rules, as detailed at section 2 above, it is hardly a surprise that businesses are prepared to put forward repeat arguments where they believe that these provide compelling evidence of the AER's errors (often repeated errors across regulatory decisions). The AER has not helped this perception by its refusal to consider evidence that ultimately has been determinative, such as with the DRP and gamma issues discussed earlier (and also the averaging period issue). Ultimately, the AER can only hope to avoid having to deal with such issues raised repeatedly when it can establish a solid track record of reasonable and responsible decision-making fully informed by the relevant facts.
116. However, it may be the case that the AER is not prepared to countenance a scenario where it must establish its credentials in this way, as is envisaged at section 3.1 above. An alternative may therefore be to take some of the responsibility and frustrations of determining cost of capital parameters and methodologies from the AER and hand this to an expert panel constituted for this purpose, potentially appointed by the AEMC.
117. One could envisage a number of roles that such an expert panel could fulfil in the present context. In this report we raise just two of them, but this should not be interpreted as an exhaustive list.

3.2.1. Expert panel to issue SoRI

118. Currently the Rules (and the proposed Rules to an even greater extent) enshrine a situation where the AER sets parameter values (and potentially methodologies) in its WACC review, but is then forced in its very next decision to consider whether there is then persuasive evidence to turn away from these values. Experience (on gamma) has shown that it is very difficult for the AER to play this role objectively, even though this 'safety valve' is of great importance in ensuring the a cost of capital is not 'locked in' through a period where it might become obviously inappropriate for the circumstances.
119. A potential function of an expert panel would be to take on the responsibility for issuing the SoRI under the Rules. It could also potentially provide high level direction on how to calculate a cost of capital consistent with the NEO. This would leave the AER the role of implementing the parameters and methodologies under the SoRI, or deciding whether persuasive evidence existed to depart from the expert panel's determination.



3.2.2. Expert panel to provide guidance to the regulator on all cost of capital decision making

120. The case studies set out at section 2 suggest that in addition to unwillingness on the part of the AER to adequately consider evidence that has been put to it, there also seems to be a lack of detailed knowledge internally to be able to engage with the issues brought forward by the NSPs.
121. Even on occasions when the AER has sought outside expert opinion, it does not seem to have understood the full implications of its expert's advice. For instance, Handley and Davis have provided the AER with a review of the finance literature on the issue of bias in the CAPM. Neither provided any evidence that the AER's implementation of the CAPM would not result in a biased cost of equity, but their evidence was interpreted in this light by the AER.⁴⁹
122. A role may therefore exist for the expert panel mooted above to provide advice on cost of capital issues on a regular basis to the AER. This would not be in place of external expert advice, but potentially complementary to it to allow the AER to use this advice and formulate its own policy in the most effective way that allows it to still meet its obligations under the Law and the Rules and achieve the NEO.

3.3. Create and fund a consumer advocate

123. One of the problems with the implementation of the current Rules is that the evidence suggests (as discussed at section 2 above and at Appendix A) that the AER has taken on more of an adversarial role in terms of seeking to drive down the cost of capital proposed by NSPs, rather than seeking to set a cost of capital consistent with the NEO.
124. The evolution of this attitude is understandable in the context of a regulatory framework which sets NSPs at odds with the AER across many issues, including the cost of capital. However, it is undesirable when the AER is required by the Law and the Rules to set a cost of capital consistent with a transparent objective.
125. An important reason that this situation has developed is because the capacity for energy users to engage in the regulatory process is limited. The issues at stake across the regulatory spectrum are complex to approach on a one-off basis and the costs of repeated engagement are significant. Aside from very large users, represented by the EUAA, energy users are individually insignificant to the overall market and currently have extremely weak incentives or ability to meaningfully contribute to the regulatory process.
126. Even the EUAA, which currently (through the EUC) has put forward a Rule change proposal to the AEMC, has not always been an active participant in the regulatory

⁴⁹ Grundy, 23 March 2011, Comment on the Cost of Capital A Report for Envestra



process. For example, during the AER's review of WACC parameters over 2008 and 2009, the EUAA does not appear to have entered a single submission.

127. A potential solution to this gap in the regulatory framework could be to establish a publicly funded energy user's advocate (EUA). An EUA should have sufficient funding to be able to maintain a regular and informed presence in the regulatory process, putting forward arguments in favour of its constituency. It would ideally have some internal expertise and the means to be a meaningful procurer of external expertise to engage in more technical issues, such as the cost of capital.
128. Aside from the obvious benefit to consumers from having a greater say in regulatory issues, the principal benefit of an EUA would be to return the AER to a more neutral position in the centre of the regulatory debate, analogous (for example) to the ACCC in telecommunications regulation. Giving the role of consumer advocate to a third party would relieve the AER from taking upon some of those responsibilities.
129. Of course, it should be noted that the option of creating and funding an EUA could potentially be a standalone proposal but also complementary to either of the options discussed at sections 3.1 and 3.2 above.



4. EUC's DRP proposal

130. The EUC has proposed a rule change to the AEMC that is being considered conjointly with the AER's proposal. The EUC's rule change proposal is solely concerned with estimation of the cost of debt.

131. Specifically, the EUC considers that:

- the current interpretation of Rules requires a cost of debt to be set that is higher than the actual cost of debt for regulated electricity network service providers;
- the actual cost of debt for government owned electricity network service providers is much lower than for their privately owned counterparts because of the strong credit ratings of Australian State governments; and
- government guarantee fee/competitive neutrality fees should not be accounted for in assessing this underlying cost of debt to the relevant State treasuries, because competitive neutrality is not a concept that applies to natural monopolies.

132. AusGrid has asked CEG to address the EUC's view that its actual cost of debt, as a government-owned business, should be the same as that of the New South Wales government. We have not been asked to address the reasonableness of amending the Rules to use the actual cost of debt is a reasonable alternative to using a benchmark cost of debt or EUC's claim that actual debt costs for regulated electricity networks are lower than for the benchmark set in the Rules.

133. The EUC raises an interesting argument. It claims that the facility fees paid by government owned NSPs such as AusGrid to their State government owners (known either as government guarantee fees or competitive neutrality fees) cannot be appropriately measured as part of the cost of debt of NSPs. It supports this reasoning by reference to the Competition Principles Agreement and Commonwealth government policy. Both refer to competition or potential competitors in the application of the competitive neutrality framework. The EUC therefore rejects its application to natural monopolies such as DNSPs.

134. We consider that there are two important flaws to this argument.

4.1. Compensation for risk

135. The EUC's argument depends on a strawman that the motivation for these fees is entirely due to issues of competitive neutrality as set out in the Competition Principles Agreement. The fact of the matter is that the fees are not required purely for competitive neutrality but also provide compensation for risk incurred by the government in funding the NSP. The EUC has confused the average risk of a State government against the incremental risk of operating an NSP.



136. The borrowing costs of the New South Wales government reflect its ability to raise money both directly through taxation or levies and indirectly through its agreement with the Commonwealth government for a share of GST revenues.
137. However, it is incorrect on the part of the EUC to assert that lending to AusGrid is something that is costless for the State government to undertake. That is, the EUC's argument implies that the State government could undertake as many risky activities as it desired and that this would in turn have no effect on its credit rating or cost of borrowing. This is patently not true. By lending to AusGrid and other New South Wales NSPs,⁵⁰ the State of New South Wales has taken on risk that will be reflected in a higher cost of borrowing than it otherwise could have achieved. This is the effect that the government guarantee fee compensates the State for.
138. In order to demonstrate the flaw in the EUC's logic imagine the impact of the NSW state Government debt funding the purchase of the Victorian, Queensland and South Australian NSPs. Investors would demand a higher yield on all NSW Government debt because the NSW Government will have spread its source of low risk (the ability to tax NSW citizens in order to meet financial commitments) more thinly than if it didn't buy the all the regulated NSPs in Australia. Certainly, the Governments credit rating would fall if it pursued such an acquisition. The debt cost to the NSW Government of buying those assets would be equal to:
- The interest rate it pays on the debt used to purchase them; plus
 - The higher interest rate it pays on all of its other
139. Precisely the same logic applies to the NSW Governments decision to fund the assets that it does own, including Ausgrid.
140. Similarly, if State governments were not able to earn a return that reflected the risks of ownership, then the State's credit rating would likely rise – reflecting the loss of revenues on those assets.
141. The fallacy in the EUC's argument can also be highlighted by imagining a company with assets of \$10 billion purely in cash. This company could obviously borrow \$1 million to invest in anything, no matter how risky, and still pay an interest rate that is very close to the risk free rate. But this doesn't mean the cost to the company of investing in that activity is the risk free rate, as the EUC's argument would have it.

4.2. Competitive neutrality

142. The EUC's argument with respect to competitive neutrality relies upon the argument that only the market for the transport of electricity should be considered. This is a very narrow definition of the requirements of the Competition Principles Agreement. Whilst

⁵⁰ This does not include other Public Trading Enterprises who also undertake financing activities.



it is true that electricity NSPs are natural monopolies for the transport of electricity, it is important to also consider that there are:

- products, such as gas, that may be capable of substituting for electricity for a wide range of purposes (including both residential and industrial purposes); and
- large industrial customers that may consider the price of electricity in making decisions about where to locate their facilities.

143. The existence of substitution possibilities for local electricity consumption means that the price for electricity must be set in a competitively neutral fashion. Since network costs are an important component of the overall price of electricity, it would be inappropriate to set the price of this component on a basis that is not competitively neutral.

144. If prices for electricity networks in New South Wales were set based upon the State government's average cost of debt, this may give rise to inefficient investments in electrical appliances and plant, where more efficient investments were available using gas sourced through the privately owned gas network. It may also have the effect of inappropriately signalling to large industrial users a low cost of electricity in New South Wales and encouraging investment there over states such as Victoria and South Australia where electricity networks are privately owned.

4.3. Conclusion

145. In summary, we consider that the EUC's position that government owned NSPs have fundamentally different actual costs of debt to privately owned NSPs is based on a fallacy. There is simply no evidence that can be put forward to substantiate this. The most reasonable assumption to apply about the riskiness of government owned NSPs are that they are approximately as risky as privately owned NSPs and it is appropriate for their services to be priced at a commensurate level. This is how the current Rules address this issue and no change is needed to this aspect of the existing framework.



Appendix A. Have the existing Rules caused the cost of capital to be overestimated?

146. An important motivation of the AER's in proposing changes to the Electricity Rules is that it considers that the process set out in the current Rules incentivises DNSPs to "cherry pick" components of the WACC set in the SoRI where changes are in their favour. This, the AER alleges, detracts from its ability to adequately consider the overall rate of return.⁵¹
147. It is not obvious why the AER feels this is the case in relation to the Gas Rules where the AER is free, if not compelled by 87(1), to reason and justify its decision in terms of the 'overall rate of return'.
148. In any event, the AER appears to believe strongly that its recent decisions have set an inappropriately high return. This is the conclusion that we draw from the AER's allegations of "cherry picking" and what appears to be a clearly expressed view that the cost of debt has been overestimated – a view that it supports with evidence. The AER does not describe any evidence to the effect that cost of equity has been adequate or over compensated. However, this implication is clear from its "cherry picking" claims – if the cost of equity had been undercompensated then this would be inconsistent with businesses 'cherry picking' WACC parameters.
149. We discuss the evidence on the cost of capital and the cost of debt in the two subsections below.

A.1. Cost of debt

5. In support of its proposition that the cost of debt has been overestimated, the AER presents a table of recent debt raisings by businesses with regulated assets – where the average maturity of the debt issues is 5.5 years.⁵² By comparing the DRPs for these debt raisings with the allowed DRPs in regulatory decisions over the same period, the AER concludes that businesses actual cost of debt is materially lower than the benchmark and (implicitly) that this benchmark may have been overly generous and could require alteration.⁵³

The debt listed in this table has been raised at margins of between 1.8 and 3.6 per cent and an average of approximately 2.4 per cent. In contrast, the AER has approved DRP values of between 3 and 4 per cent in its gas and electricity determinations since the beginning of 2010 (of fourteen determinations, ten have been subject to review applications).

⁵¹ AER, *AER's proposed changes to the rate of return provisions on the National Gas Rules*, September 2011, p. 4.

⁵² This excludes debt issued by SPI for the reasons described below.

⁵³ AER, *AER's proposed changes to the National Electricity Rules*, September 2011, p. 80.



150. In reality, the data presented by the AER supports precisely the opposite conclusion. The Rules have operated in order to ensure that the cost of debt allowance is appropriate and supports an accurate estimate of the cost of capital. Had, the allowed cost of debt reflected the actual cost of debt associated with the AER data the resulting WACC estimate would have been manifestly too low.
151. In simple terms, this is because the difference between actual and allowed cost of debt in the AER's table is fully explained by the fact that the average maturity of the debt issued is lower than 10 years. When these DRPs are adjusted to a 10 year maturity then the equivalent 10 year implied DRP's are, on average, materially higher than the AER's allowances.
152. Moreover, this adjustment to an equivalent 10 year maturity must be made. One must provide an allowance for the cost of debt that reflects the cost of issuing 10 year debt, even if businesses are currently issuing five year debt. This is because the cost of equity, and in particular the equity beta, has been estimated based on businesses who have long term debt portfolios (10 plus years) and issuing long-term debt lowers the cost of equity.
153. Issuing short term debt lowers the cost of equity because more risk is transferred to debt holders (which is the *quid pro quo* of paying/receiving a higher interest rate). As identified by Modigliani and Miller (1958)⁵⁴ firm specific debt is like air in a balloon. If risk is squeezed out of debt by issuing short term then this simply means more debt is retained in the remaining equity. The overall cost of capital cannot be assumed to be lower when issuing short term debt just because the cost of debt is lower. This Modigliani Miller result is a fundamental pillar of modern finance theory.
154. The cost of equity under the Rules has been based on the well-established practice of regulated businesses issuing long term (10 plus years) debt. The issuance of long term debt has lowered businesses risk and this lower risk is captured in the value of the equity beta set under the Rules. Indeed, if businesses hadn't issued primarily long term debt prior to the GFC it is quite possible that some of these businesses would have collapsed (been unable to roll over debt and been taken over by creditors) during the GFC.
155. It would be internally inconsistent, and a form of cherry-picking, to argue that the Rules should allow the AER to lower the allowed cost of debt (to reflect current and likely temporary debt raising strategies) if one does not simultaneously adjust the cost of equity to reflect those strategies. By setting a benchmark 10 year debt raising cost that is consistent with the fixed equity beta, the Rules have done precisely what they should have done over the GFC.

⁵⁴ Modigliani, F.; Miller, M. (1958). ["The Cost of Capital, Corporation Finance and the Theory of Investment"](#). *American Economic Review* **48** (3): 261–297. Both of the authors have been awarded the Nobel Prize in economics (1985 and 1990 respectively).



156. These issues are dealt with more comprehensively in report for ETSA, Citipower and Powercor submitted in the context of the proposed Rule change.⁵⁵

A.1. The cost of equity

157. In our view cost of equity the AER/ERA has allowed post the GFC has been:

- materially below the forward looking cost of equity; and
- this under-compensation has been a direct result of the AER/ERA's use of discretion under the existing Rules – shedding doubt on the idea that the Rules need to confer still greater discretion on the AER/ERA.

158. Section 2.1 in the main body of this report already provides material evidence of error in the setting of the cost of equity. In addition and in support of this evidence, the remainder of this appendix summarises evidence to the effect that the AER/ERA have underestimated the MRP post GFC. This evidence is drawn from a report that CEG provided the APIA in relation to the AER's Rule change proposal.⁵⁶

159. . Since the AER's most recent electricity SoRI and the onset of the GFC, the AER has persisted in estimating the cost of equity using historical MRP estimates despite clear evidence of elevated volatility and perceptions of risk in the current economic climate.

160. The overarching requirement under the both the Gas and Electricity Rules is that the cost of capital be set by the AER having regard to:

...prevailing conditions in the market for funds...

161. In this section we collate and consider a number of estimates and indicators of the prevailing market risk (MRP) and returns required by investors in Australian equities. All of these estimates suggest a rising MRP and cost of equity post GFC (as one would expect). By contrast, the AER/ERA has:

- set the MRP at pre-crisis levels of 6.0%,
- reduced the equity beta from 1.0 to 0.8; and
- done so in an environment when CGS yields (as risk-free rate proxies) are at historical low levels (at the time of writing these are a full 3% lower than in June 2008).

162. The net impact of these decisions has been a dramatic reduction in the allowed cost of equity in AER and ERA decisions post GFC. This is despite the Rules allowing the

⁵⁵ CEG, December 2011, Critique of AER Rule change proposal, A report for ETSA Utilities, Powercor and CitiPower

⁵⁶ CEG, December 2011, Proposed changes to the National Gas Rules, A report for APIA.



AER/ERA to use its discretion to prevent such a fall. In our view forward looking estimates of the cost of equity are much higher than have been allowed by the AER/ERA post crisis.

163. It is necessarily the case that observations forward-looking cost of equity must involve making assumptions and the exercise of judgement, such as forecasting the future level and growth of dividend payments. There is not and cannot be perfect knowledge about the cost of equity that might prevail over a particular period of time in the future. For each set of estimates that we present, we describe which of the inputs to them are:
- the expert or consensus views of specialist industry forecasters; or
 - additional inputs that provided by CEG estimates.
164. It would be incorrect to conclude that this requirement for assumptions and judgement invalidates the relevance of these estimates. Where the issue is the accuracy of the inputs, this can be addressed by reviewing these values. Necessarily there will be some imprecision about what values are appropriate for these inputs. These issues go hand-in-hand with an approach that is predictive of future outcomes.
165. On the other hand, an approach based only on historical averages could be argued to face comparatively fewer issues of precision, but as described above, in some cases will not provide an accurate indicator of the forward-looking cost of equity. That is, looking at long stretches of historical data provides a more precise estimate of a variable that is not the variable of interest. The evidence that we survey below suggests that this is the case at the present time.

A.1.1. Dividend growth models

166. A DGM is also known as a discounted cash flow (DCF) model uses forecasts and projections about future dividend streams to estimate either equity valuations/prices (for any given investor discount rate) or the implied average investor discount rate (for any given equity valuations/prices). This analysis is founded on the basic financial valuation identity (definition), that the current value of an asset (in this case a share of equity) is equal to the present value of future income streams from that asset (future dividends).
167. DGM can be used to estimate the market risk premium used in the CAPM. It is an alternative to assuming the current forward looking cost of equity can be inferred from historical averages. The advantage of DGM analysis is that it is completely forward looking since it relies only upon contemporaneous data and forecasts. If there are good reasons to believe that current market circumstances differ from the historical average market circumstances (as there are today) then the historical average cost of equity will be a poor indicator of the prevailing cost of equity. A DGM analysis provides a basis for determining the forward looking cost of equity in those



circumstances. If one's sole interest is to determine the prevailing cost of equity then, as Damodaran notes:⁵⁷

The problem with any historical premium approach, even with substantial modifications, is that it is backward looking. Given that our objective is to estimate an updated, forward-looking premium, it seems foolhardy to put your faith in mean reversion and past data.

168. The DGM is routinely used by academics, practitioners and economic regulators. For example, in the United States the DGM method is the dominant method used by regulators to establish the equity premium required by investors in regulated businesses. The US Federal Energy Regulatory Commission notes:⁵⁸

The Supreme Court has stated that "the return to the equity owner should be commensurate with the return on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital." Since the 1980s, the Commission has used the DCF model to develop a range of returns earned on investments in companies with corresponding risks for purposes of determining the ROE to be awarded natural gas and oil pipelines.

169. The use of DGM provides the necessary confidence that assumptions into, and outputs from, theoretical models, such as the CAPM, are representative of investor requirements. If one's sole objective is to accurately estimate the forward looking cost of equity then, where there is a substantial disagreement between the DGM results and results based on historical estimates of equity premiums, then in our opinion the DGM results should be given greater weight. We consider that a DGM analysis provides the most appropriate basis for estimating the forward looking MRP relative to the prevailing risk free rate.
170. In this report, we present two alternative DGM approaches. The first is Bloomberg's own DGM modelling conducted over all members of the ASX 200 index. The second utilises dividend forecasts published by Bloomberg, combined with current equity prices, to calculate the implied rate of return and risk premium over the risk free rate required by investors for Australian utilities stocks in particular.
171. These allow one to make inferences about the long term risk premium that equity investors currently require to commit equity funding today.

⁵⁷ Damodaran, *Equity Risk Premiums (ERP): Determinants, Estimation and Implications – The 2011 Edition*, February 2011, p. 56. Note that in this context when Damodaran's refers to 'faith in mean reversion' he is referring to the fact that adoption of historical average MRP implies an assumption that either the MRP is constant or if it changes this is only ever for such short periods that at any given time the best assumption is that the MRP has already reverted to the historical average.

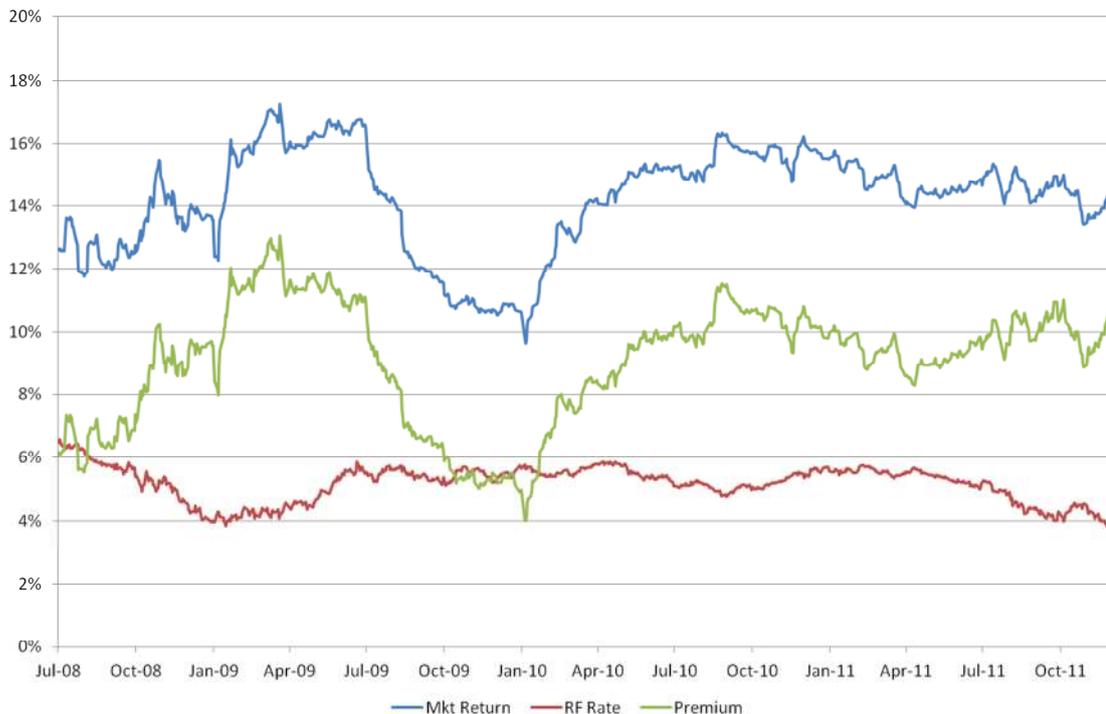
⁵⁸ Federal Energy Regulatory Commission, *Composition of Proxy Groups for Determining Gas and Oil Pipeline Return on Equity; Policy Statement*, Docket No: PL07-2-000, 17 April 2008. Available online at <http://0-edocket.access.gpo.gov/library.colby.edu/2008/pdf/E8-9301.pdf>.



A.1.1.1. Bloomberg estimate of market return premium

172. Bloomberg calculates a measure for market return based on the *capital weighted average of the internal rate of return for all major index members*. The internal rate of return for each index member is calculated using a dividend discount model (DDM) developed by Bloomberg.
173. In summary, Bloomberg forecasts a path of future dividend payments for each firm in the ASX 200. Different assumptions are made for each firm depending upon information about its growth profile and analyst forecasts of its dividend payout. The required market return is calculated by aggregating these assumptions across all firms in the market index.
174. Bloomberg calculates an MRP by subtracting from the market return the prevailing risk free rate. The market return, risk free rate and market return premium for Australia (based on the ASX 200 index) is available from Bloomberg for Australia since July 2008 until the present. Figure 5 below depicts the market return, the risk free rate and the market return premium for Australia for the time period in which it is available.

Figure 5: Market return - Australia



Source: Bloomberg

175. The figure shows that the cost of equity dipped during the second half of 2009 and the early part of 2010 to levels that were briefly below 10%, but has since mid-2010 remained relatively steady at between 14% and 16%, similar to levels experienced during the height of the GFC as experienced in Australia in March 2009.



176. One can also observe a clear inverse relationship between the MRP and the risk free rate in the above figure. In the height of the GFC (late 2008 and early 2009) the risk free rate was at its lowest point of around 4% while the MRP rose to its highest point of over 12%. Similarly, since April 2011 the risk free rate has been falling (on the back of concerns about renewed financial crisis emanating from Europe) while the MRP has been rising. These two effects largely cancel each other out – with the market cost of equity remaining relatively stable since April 2011.

A.1.1.2. Dividend growth model (DGM) based on ASX 200 UTIL index

177. We have also examined the return on utilities stocks in particular. The eight companies which make up the utilities portion of the ASX 200 (ASX 200 UTIL) are AGL Energy Ltd, APA Group, DUET Group, Energy World Corp Ltd, Envestra Ltd, Hastings Diversified Utilities Fund, SP AusNet and Spark Infrastructure Group.

178. Bloomberg does not provide a DGM model specific to the Australian utilities sector. However, we have estimated the forward-looking return on equity required by the utilities sector using DGM analysis. This utilises the expected dividends for the current and subsequent year for the utilities portion of the ASX 200 index, sourced from Bloomberg's collection of analyst forecasts for each firm in that index. Thereafter, the model makes an assumption about dividend growth. A full description of the DGM assumptions used here is provided at Appendix B to this report.

179. A DGM based on the utilities sector only is not capable of making direct inferences about MRP. However, subtracting the yield on 10-year CGS from the calculated return on equity gives rise to an estimate of the equity risk premium (ERP), where:

$$ERP = \beta \times MRP$$

180. Therefore the ERP provides information about both beta and MRP jointly. Imposing an estimate of beta specific to utilities stocks, it is possible to back-solve for the MRP estimates implied by DGM analysis on utilities firms only.

181. The figure below shows a time-series of the ERP (return on equity less return on 10-year CGS) assuming a dividend growth of 3.0%, 5.5% and 8.0% respectively applied beyond the time at which Bloomberg forecasts dividends. This range of values is adopted to give an indication of the sensitivity of results to the dividend growth assumption. However, our estimate of the forward-looking growth path, as set out in Appendix B, lies in the range of 4.9% to 6.6%. For the reasons set out in Appendix B, we regard the central growth estimate, of 5.5% as likely to be conservative.



Figure 6: ERPs estimated using DGM on ASX 200 UTIL index



ERP: Bloomberg, CEG analysis

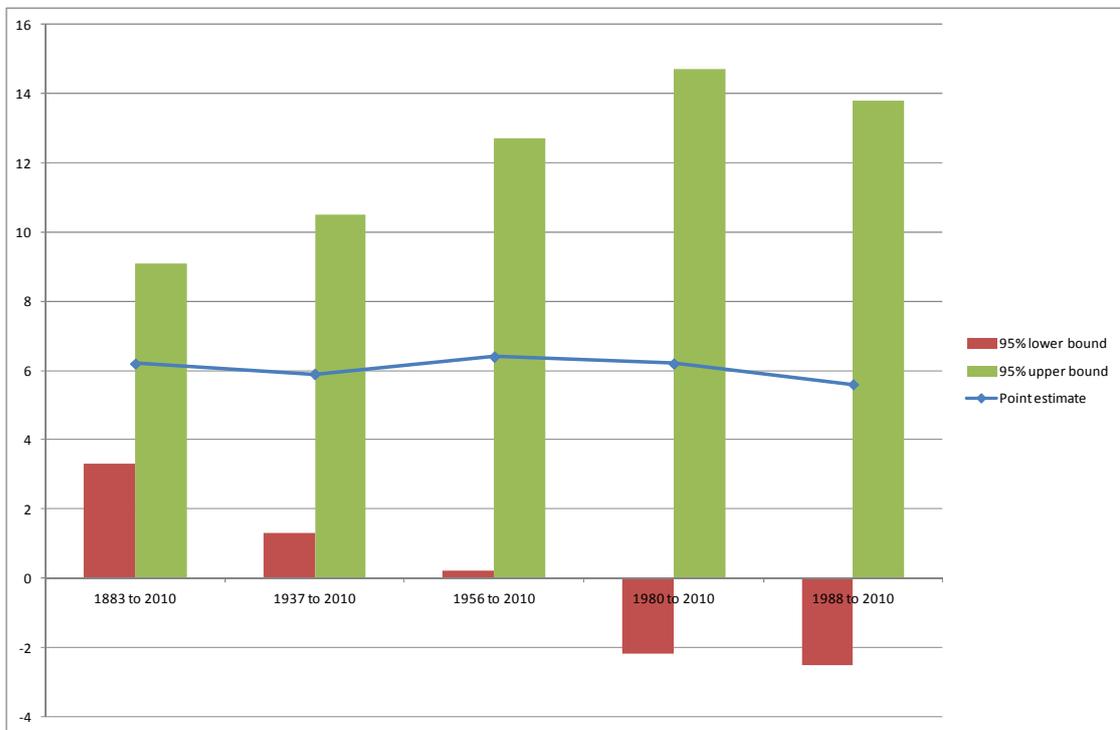
182. The ERP during the proposed averaging period under each assumption of dividend growth is summarised in Table 1 below, and ranges from 7.46% to 12.36% at a gamma of 50%. At a gamma of 25%, the ERP ranges from 6.66% (at 3% growth) to 11.57% (at 8% growth), with an estimate of 9.11% at the 5.5% growth assumption. At an equity beta of 1.0 or below, the implied MRP will be the same or higher than these ERP estimates.
183. Based on this DGM analysis a 9.11% ERP ($\beta \cdot \text{MRP}$) is most consistent with current regulatory thinking about the value of gamma. For the reasons set out in Appendix B, the assumption of a 5.5% growth in nominal dividends (or around 2.9% in real terms assuming inflation of 2.5% in the long run) is likely to be conservative.
184. At a beta of 0.8 as used by the AER/ERA since its SoRI, an ERP of 9.11% is equivalent to an MRP of 11.39%. Even at the 3% growth assumption, the estimated MRP would be 8.33%. This is materially higher than the 6% allowed by the AER/ERA.
185. This range for the prevailing forward looking MRP (8.3% to 11.4%) is much higher than that allowed by the AER/ERA in their recent decisions for DBNGP and Aurora (discussed in section 4). When combined with the prevailing risk free rates allowed in those decisions this range would result in a more reasonable estimate of the cost of equity.

A.1.2. Historical average MRP

186. The AER’s adviser, Handley, provides point estimates and confidence intervals for his estimates of MRP from historical data.⁵⁹ Handley estimates the average MRP (using historical data from 1958 to 2010) is 6.5%.⁶⁰ However, Handley reports a 95% confidence interval which extends up to 12.9%. Using the longest stretch of data (1883 to 2010) increases the number of estimates but does so at the cost of introducing less reliable estimates. Even in that case the average is 6.2% and the 95% upper bound is 9.1%.

187. Handley’s results are summarised in the chart below.

Figure 7: Handley historical average MRP (utilisation rate = 0.35)



Source: Handley

188. Handley’s estimates capture the long run average MRP over a variety of economic conditions (recessions and periods of high growth) and are consistent with an estimate of 6.5%.

⁵⁹ Handley, *Memorandum to the AER: Additional Estimates of the Historical Equity Risk Premium for the Period 1883 to 2010*, 25 May 2011.

⁶⁰ Using an assumed utilisation rate for imputation credits of 0.35.



189. The Strategic Finance Group (SFG) has made similar observations in relation to the Handley data in a recent paper for Envestra. We concur with its conclusion that:⁶¹

To adopt a 6% MRP estimate in the current conditions, one would need to be satisfied:

- a. That 6% is an appropriate long-run average estimate; and*
- b. That risk premiums in financial markets are currently no different from their long-run average levels.*

However, both of these conditions are difficult to establish given that:

- a. The estimates of the long-run average MRP from the most reliable data period are 6.4% or 6.6% depending on the estimate of theta; and*
- b. The AER itself has set a debt risk premium at a level that is substantially above the long-run average and pre-GFC levels. It is implausible that risk premiums in debt markets could be substantially above their long-run mean, while equity risk premiums were no higher at all than their long-run means.*

A.1.3. Consistency with DRP

190. Current debt risk premiums (DRPs) are at historically elevated levels. Based upon the extrapolated Bloomberg BBB fair value curve, 10-year DRPs are at levels of about 4.00%. In its most recent regulatory determination, the AER has estimated the DRP based upon an average of a sample of long dated bonds and arrived at an estimate of 3.14

191. These levels are high relative to the historical average DRP pre GFC. In June 2007 the AER set a DRP of 1.14% for Powerlink and the average DRP for Commonwealth and State energy regulators from December 2002 (SPI PowerNet) to the June 2007 Powerlink decision was 1.28%.

192. Standard finance theory predicts that a heightened DRP will also be associated with a heightened MRP. Moreover, any increase in the DRP would tend to be associated with a similar proportionate (but larger absolute) increase in the MRP.⁶² With debt risk premiums in the order of 3% to 4% (AER estimate versus Bloomberg estimate) this suggests an at least 2% increase in the DRP relative to pre GFC levels. Standard finance theory predicts a more than 2% increase in the MRP would be associated with this increase in the DRP.

⁶¹ SFG, *Issues affecting the estimation of MRP: Report for Envestra*, 21 March 2011, p. 14.

⁶² Grundy, *The Calculation of the Cost of Capital A Report for Envestra* Bruce D. 30 September, 2010

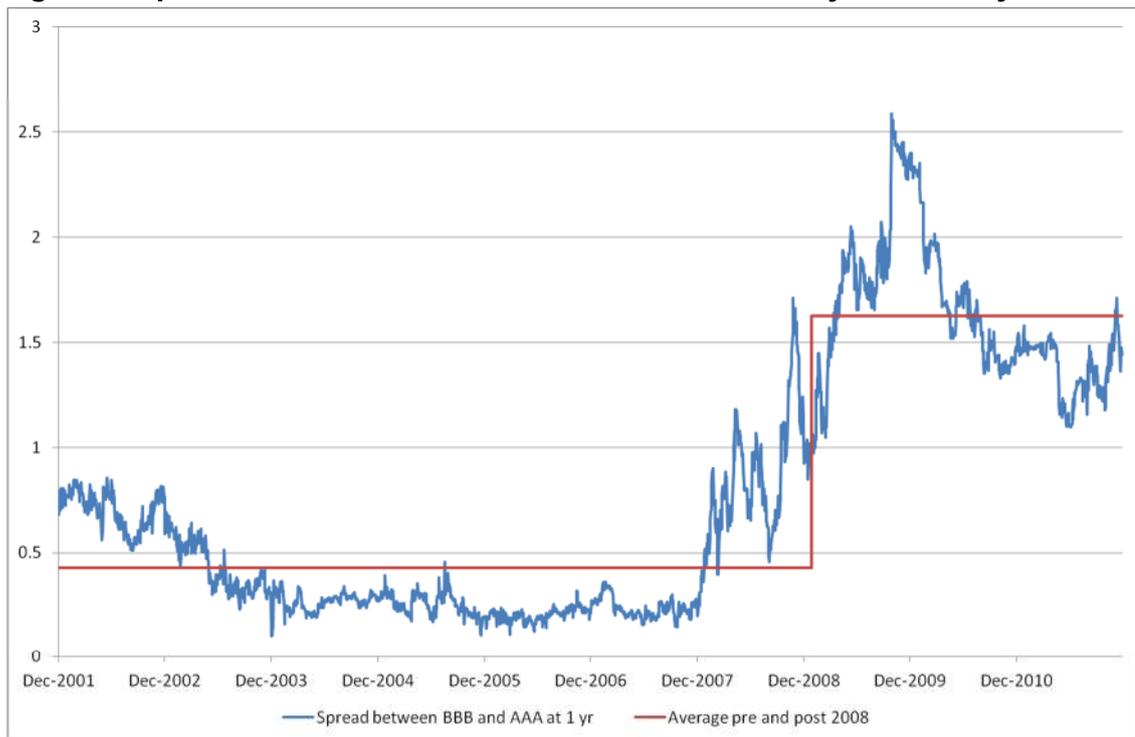
A.1.4. Other debt based proxies for equity MRP

193. A common proxy for the level of the market risk premium is the difference between yields on short dated AAA and BBB rated bonds. Jagannathan and Wang (1996) use this as an indication of the forward looking market risk premium and note that it is widely accepted method in finance.

Based on these findings, I choose the yield spread between BAA- and AAA-rated bonds, denoted by R_{t-1}^{Prem} as a proxy for the market risk premium. The variable R_{t-1}^{Prem} ... has been used extensively in finance.

194. The above quote refers to Moody's credit ratings. The equivalent Standard and Poor's credit ratings are AAA and BBB. When we examine the same measure in Australia using the longest history of fair value estimates available from Bloomberg we observe the following history for the spread between Standard and Poor's AAA and BBB rated bonds with one year to maturity.

Figure 8: Spreads between BBB and AAA rated bonds at 1 year maturity



Source: Bloomberg

195. It can be seen that the level of the spread between BBB and AAA rated bonds with one year maturity prior to 2008 was almost always less than 0.5% and averaged 0.42%. Since 2008 the average spread has been over three times higher at 1.62%. While it is true that these spreads spiked in April 2009 at 2.6%, they have not fallen back to pre-crisis levels and are currently very close to their average levels since 2008.



196. Bloomberg estimates that in November 2011 yields were still more than three times (200% higher than) pre-2008 average yields. This is consistent with ERPs being similarly elevated above their pre GFC levels.

Table 3: AAA to BBB spreads

Sampling period	Spread
Average pre 2008	0.42%
Average post 2008	1.62%
Ratio pre and post 2008	3.84
November 2011	1.53%
Ratio November 2011 to pre 2008 Average	3.62

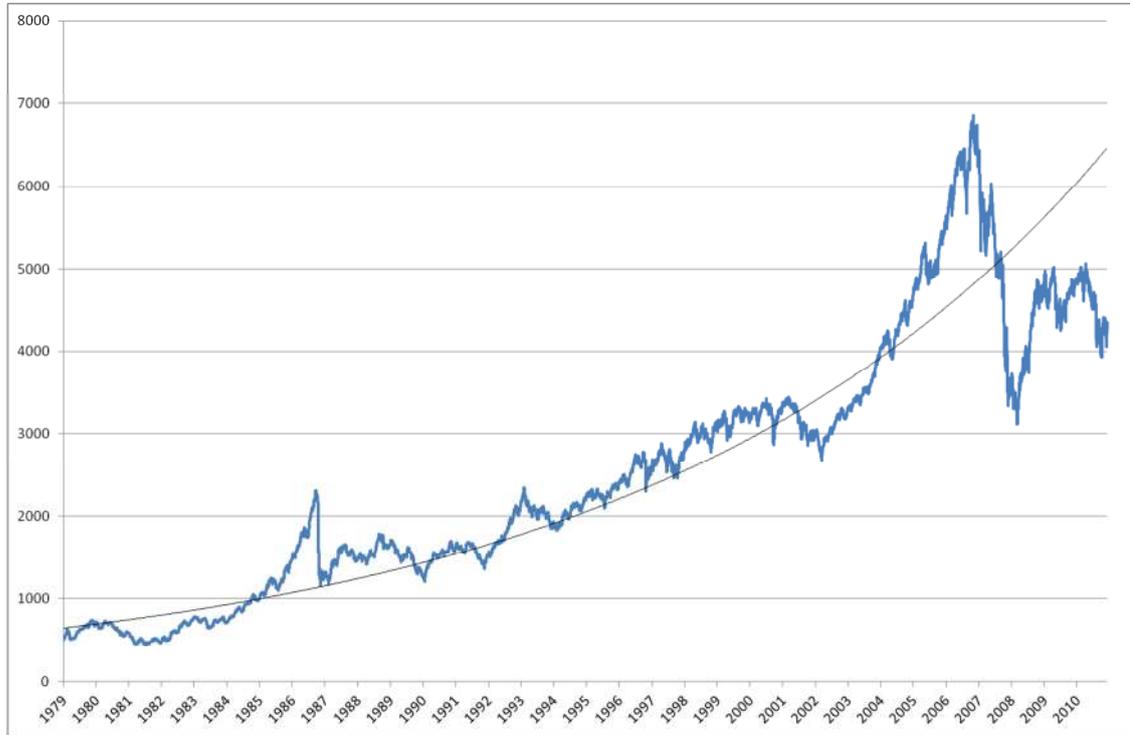
Source: CBASpectrum, CEG analysis

A.1.5. Do share market gains in 2009/10 suggest risk premiums are back to normal?

197. The evidence presented above suggests that MRP has, on average, been at elevated levels since the onset of the GFC, and particularly since 2008. There is no indication based on this evidence that forward-looking conditions in equities markets have returned to normal levels.
198. We note that regulators such as the AER and the ERA have, as noted at section 2.1 above, recently reverted to MRP estimates of 6.0% based upon reasoning that the GFC has either ended or significantly eased. As evidence for this, the ERA put forward a chart showing the recovery in the Australian share market in late 2009 and 2010.⁶³
199. In Figure 9 below we show this recovery in the context of the overall share market trend rate of increase since 1979 (the date to which Bloomberg records these data).

⁶³ See AER Envestra SA, draft decision, page 270. See ERA, *Draft Decision on Proposed Revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline*, 14 March 2011, p. 193.

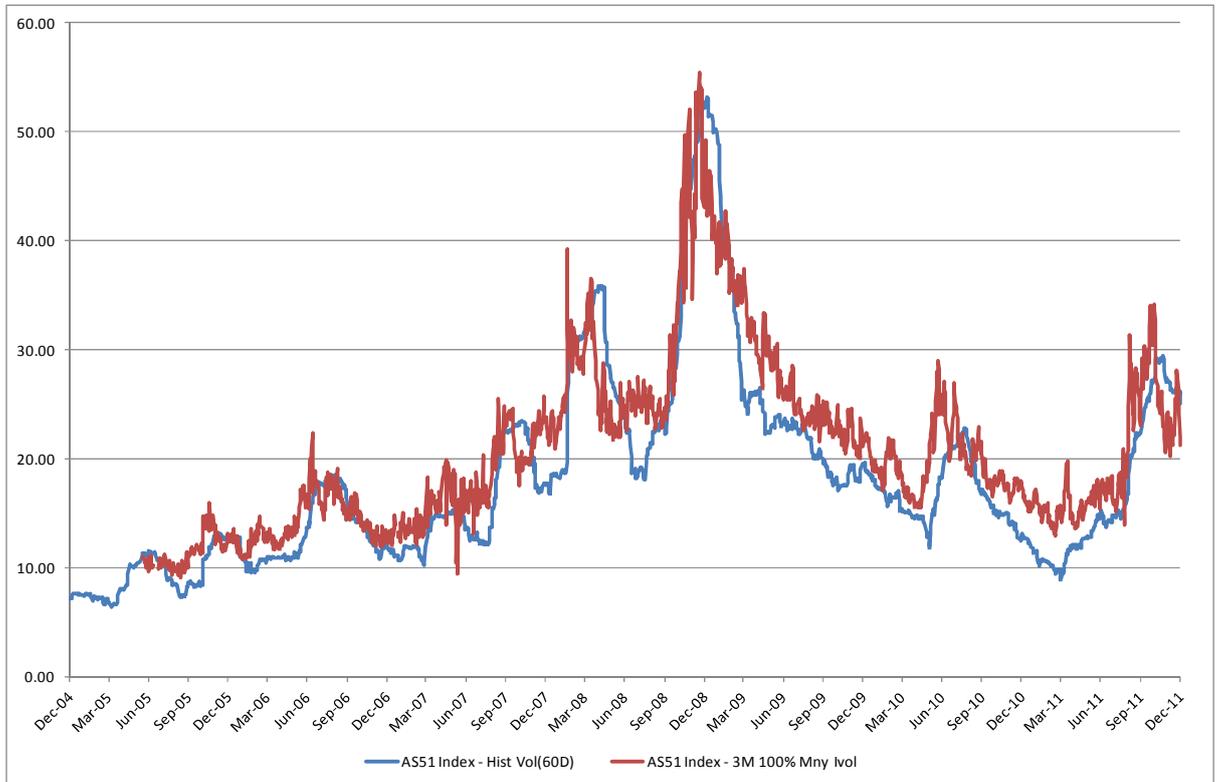
Figure 9: Trend of the All-Ordinaries index, 1979-2011



Source: Bloomberg

200. The figure above shows that Australian regulators have been rather quick to call an end to the economic uncertainty initially triggered by the events in late 2008 and early 2009. Even after the recovery in late 2009 and 2010, the share market had simply regained half the losses suffered in 2007 and 2008. Moreover, half of this recovery has been lost in 2011. The share market has not returned to the trend line fitted through 30 years of data. This is true despite high current earnings levels of Australian mining companies associated with high commodity prices. Furthermore, sovereign debt problems in Europe are threatening the stability of the European and world financial system, representing a continuation of heightened economic uncertainty rather than a return to normal, has substantially depressed share markets since the most recent regulatory decisions.
201. The actual and implied volatility of the stock market is sometimes used as an indication of the level of investor risk perceptions. We have sourced measures of actual (historical) and implied volatility from Bloomberg - specifically the 60 day historical volatility using the Classical model and the 3M 100% Moneyness implied volatility. Moneyness represents the strike price or underlying price, so the implied volatility is essentially the at-the-money implied volatility expiring in three months. This is compared to 60 trading days of historical volatility, which equates to approximately three calendar months so the terms are comparable for implied and historical volatility. The figure below shows a history of actual and implied volatility for the ASX200. It can be seen that actual and implied volatility are currently at elevated levels (albeit lower than the absolute peak in late 2008 and early 2009).

Figure 10: Actual (historical) vs. implied volatility for the ASX200



Source: Bloomberg

A.1.6. Conclusion

202. The overwhelming evidence is that equity risk premiums are currently well above historical averages. The effect of this is that the cost of equity is likely also above average (ie, the rising MRP is likely to have offset any fall in the risk free rate). By contrast, post GFC the AER and ERA have lowered the allowed cost of equity substantially.
203. In fact, the ERA has set the cost of equity a full 2.0% lower than the level overturned on appeal in EnergyAustralia (and 3.5% lower than the value when the AER's error was corrected). This largely reflects the fact that the ERA has set a real risk free rate that is almost half of the value (1.0% vs 1.8%) that the Tribunal determined was.⁶⁴

...unlikely to produce a rate of return appropriate for the regulatory period.

⁶⁴ Application by EnergyAustralia and Others (includes corrigendum dated 1 December 2009) [2009] ACompT 8 (12 November 2009), para. 114.



204. In our view, there is no evidence that the existing Rules have forced regulators to provide returns that are too high.



Appendix B. Assumptions used in DGM modelling

205. In order to estimate the average risk premium required by investors across Australian utilities equities we have sourced from Bloomberg median analyst forecasts for aggregate dividends on those stocks that make up the ASX Utilities Index.
206. However, the Bloomberg forecasts cannot be directly compared to capitalisation of utilities firms in order to estimate an implied rate of return because these are forecasts of cash dividends, and as such do not include the value of imputation credits to investors. We include the value of imputation credits consistent with several alternative assumptions on the value of gamma – 25%, 50% and 65%. We do this by assuming that 100% of dividends are distributed with franking credits but investors only value these at a lower percentage of their face value. For a gamma of 50%, this would mean that each dollar of dividends had attached to it imputation credits with a face value of 42.8 cents (0.3/0.7) but these would only be valued by investors at 21.4 cents (42.8*0.50).⁶⁵
207. Accordingly, we have applied an uplift factor to the Bloomberg cash dividend forecasts to reflect the value of imputation credits to investors.
208. The forecast cash amount and value of the dividends of utilities firms on the ASX 200 are available only three financial year periods, including the current financial year. There are no direct forecasts of dividends per share that we are aware of which extend beyond that period. To enable an estimate of the required rate of return, we have extended the path of dividends into perpetuity based on an assumed long run rate of growth from the final Bloomberg forecast.
209. There is general consensus that long run dividend growth is best proxied by long run economic growth. This is the assumption that is made by AMP,⁶⁶ Davis,⁶⁷ Lally⁶⁸ and Damodaran⁶⁹. We consider this approach is appropriate and we have developed an estimate for this parameter of 2.3% to 3.9% based on two differing methodologies.
210. The average annual rate of real growth in gross domestic income between 1959 and 2011 was 3.9%.⁷⁰ Combined with an average long run inflation forecast of 2.5%,

⁶⁵ Alternatively, one could consistently arrive at a gamma of 0.65% with a lower number of imputation credits distributed and a higher than 65% value placed on imputation credits when distributed.

⁶⁶ AMP Capital Investors (2006), *The equity risk premium – is it enough?* Oliver's insights, Ed.13, 4. This methodology uses the long term average nominal growth in GDP as a proxy for long term average nominal growth in dividends).

⁶⁷ Davis, The weighted average cost of capital for the gas industry, Report prepared for the ACCC and ORG, 18 March 1998, p.15-16.

⁶⁸ Lally, The cost of capital under dividend imputation, Prepared for the ACCC, 2002, pp.29-34.

⁶⁹ Damodaran, op cit, page 53.

⁷⁰ The Australian Bureau of Statistics (ABS) publishes economic growth figures on its website starting in 1959. Here we use growth in real domestic income of 3.9% (A2304314X of ABS Catalogue 5206.0) rather than nominal growth, since future expectations of inflation are not consistent with the high levels of inflation that were experienced at various times over this period.



based on the middle of the RBA's target band for inflation, this is equivalent to nominal economic growth of 6.6%. This is also consistent with the 6.9% average expected rate of growth in dividend per share in the US from 1946 to 2008.⁷¹ By way of comparison, equivalent real growth in the US since 1929,⁷² starting immediately prior to the great depression, was 3.3%. If the data series begins instead at 1933 the real average growth rate is 4.0%.

211. As a lower bound estimate we choose the real yield on 10-year inflation indexed CGS yields⁷³ of 2.3% over the 20 days to 31 May 2011. This assumption gives rise to nominal dividend growth of 4.9%. We regard this as a lower bound estimate on the basis that it is materially below the historical average level of economic growth (as discussed above) and it is below the actual real rate of interest available of extremely low risk assets (such as State Government debt and Government guaranteed bank debt). We also note the views of the AER⁷⁴ and the RBA⁷⁵ that lack of supply in indexed CGS has caused their yields to be downward biased (also consistent with the view that this is a lower bound estimate).
212. The use of long run historical economic growth should be distinguished from using the long run historical MRP to predict the currently prevailing MRP. In the latter approach one is using *long run historical* MRP and assuming it is the best estimate of the *prevailing* MRP. This is not akin to how we are using long run historical economic growth. In this approach we are using a *long run historical* economic growth to inform our view about the best estimate of a *long run future* economic growth beyond immediate term forecasts - which we then use, along with current data on equity prices, short-term dividend forecasts and CGS yields as the input into our estimate of the prevailing MRP. Importantly, we are using long run historical estimates as a proxy

⁷¹ The appropriate data for Australia is not easily accessible – noting that it is desirable to track dividend *per share* growth not dividend growth *per se*. This means we require an estimate of the dividends an investor would receive if they never reinvested dividends nor participated in share buy backs. Also, it is desirable to be able to calculate dividend per share growth on a portfolio that is constantly being reweighted to match the market portfolio over time. Data is available to perform these calculations from the US. The average mean continuously compounding growth rate for dividends, measured on this basis, on the New York Stock Exchange was 6.10% over this period. The standard deviation of the annual continuously compounded growth rate was 11%. Assuming the dividend growth rates are lognormally distributed the expected annual dividend growth rate is $e^{\mu+0.5\sigma^2}$ where μ is the expected annual continuously compounded growth rate and σ^2 is the variance of the annual continuously compounded growth rate.

⁷² The longest published series by the Bureau of Economic Analysis at the US Department of Commerce <http://www.bea.gov/national/index.htm#gdp>.

⁷³ On 15 May 2009 the corresponding nominal yield on CGS of equivalent maturity was 5.04%.

⁷⁴ On page 226 of October 2008 NSW draft distribution determination the AER states:

Historically, the AER has used an objective market-based approach to forecast the expected inflation rate—calculated as the difference between the CGS (nominal) and the indexed CGS yields. However, since late 2006 a downward bias in the indexed CGS has become evident due to the limited supply of these securities.

⁷⁵ RBA Assistant Governor, Guy Debelle, states in a letter to the ACCC dated 9 August 2007 that

“The issue of insufficient supply is relevant, however, for the indexed bond market. In contrast to the regular issuance of nominal bonds that underpins the futures market contracts, there have been no indexed bonds issued since February 2003. Outstandings are now limited to just three issues, just one of which has maturity in excess of 10 years. Moreover, demand for these bonds has increased as supply has fallen. An indication of this problem can be gleaned from the measure of inflation expectations... Such an observation would also imply that the indexed bond yield may no longer offer be the best estimate of a risk-free real rate.”



for long run future estimates beyond the medium term – we are not using them to proxy short run (prevailing) conditions. Our modelling takes into account all prevailing market conditions (in the form of prevailing equity prices, short to medium term dividend forecasts and prevailing risk free rates).