8 December 2011

Mr John Pierce
Chairman
Australian Energy Market Commission
Level 5, 201 Elizabeth Street
Sydney NSW 2000

via website: submissions@aemc.gov.au

Dear John

Response to AEMC Consultation Papers – Economic Regulation of Network Service Providers

Thank you for the opportunity to respond to the AEMC Consultation Papers (dated 20 October 2011 and 3 November 2011) on the Economic Regulation of Network Service Providers.

Please find attached the ENA submission.

We agree with the Commission that the starting point for any rule change proposal should be substantive evidence of a regulatory problem. We have carefully reviewed the limited evidence presented in the AER proposal. We can see no solid evidence linking higher network charges to regulatory issues rather than fundamental cost drivers such as higher reliability standards, increased cost of capital and rising demands on network capacity. Our submission explains the impact of these cost drivers on network charges. The AEMC will be very familiar with this information from its recent forecasts of electricity prices.

ENA has devoted considerable effort to providing an industry wide response to the AEMC's Consultation Papers. ENA's 23 members supply electricity to more than 8 million customers and supply gas to more than 3 million customers.

ENA has been assisted by recognised experts including NERA Economic Consulting, PwC and Gilbert + Tobin Lawyers. These advisers have extensive experience in energy regulation having worked for governments, regulators and businesses and in particular have worked on the design of the regulatory frameworks including the National Electricity and Gas Rules.

We have worked to take a constructive approach to the submission bearing in mind the National Electricity and Gas Objectives. In particular the process of reviewing the WACC has been a challenging one. The two rule change proposals across three existing sets of WACC rules have stimulated analysis and thinking as to how the rules work under a range of market scenarios, the efficiencies, the inefficiencies and risks they may generate. This work has served to highlight the complexity of the issues involved and the importance of further thinking and analysis if the AEMC was to conclude that a single set of 'optimal' WACC rules should replace the three current sets of rules. In this regard the ENA notes the significant contrasts between the two sets of WACC rule changes on the table. ENA believes that aspects of the EURCC proposal warrant further careful analysis.

The ENA submission sets out our initial views on the WACC rule proposals and other issues. Given the complexity and importance of the issues being considered, ENA is looking forward to participating in a robust process of stakeholder involvement before any determination. ENA believes that collaborative engagement with the AEMC and other parties will be important to ensuring a sound final decision.

We would be pleased to provide the Commissioners with a detailed briefing on the ENA submission at their earliest convenience.

The ENA recognises the work put into the Rule change by the AEMC and appreciates the opportunity to contribute to its development.

If you have any questions please contact Garth Crawford on 02 6272 1507.

Yours sincerely

Malcolm Roberts
Chief Executive

Response to Consultation Papers

Proposed Energy Rules Changes:

Economic Regulation of Network Service Providers

Calculation of Return on Debt for Electricity Network Businesses

1. Overview

The Energy Network Association (ENA) welcomes the AEMC's rule change assessment process relating to proposals made by the Australian Energy Regulator (AER) and Energy Users Rule Change Committee (EURCC). The rule change process represents an important mechanism for reviewing, testing and improving regulatory frameworks and practice in the Australian energy sector.

One of the most important aspects of the rule change process is the clear empirical and evidential checks it places on changes to regulatory frameworks affecting critical long-lived investment. In this respect, the energy networks sector considers that some of the AER's major proposals for regulatory change have not been accompanied by a strong case for change. In particular, the AER rule change package does not demonstrate any systematic failures in the National Electricity or Gas Rules across a number of areas of proposed changes. Rather, the AER has simply asserted that, as energy prices and network costs are rising, claimed deficiencies in the regulatory rules are the proximate and dominant cause.

This approach fails to recognise that energy prices are rising for a range of reasons, and due to a number of drivers which themselves have been well-recognised in AER network pricing determinations under the existing regulatory regime. These cost drivers include ageing infrastructure and network assets, rising input costs, the entry of the sector into a reinvestment cycle, increasing reliability standards in some jurisdictions, and an empirically observable increase in the cost of finance in the wake of the first phases of the Global Financial Crisis (GFC). The AER has failed to demonstrate that these price rises are unnecessary or that deficiencies in the rules are significant contributors, thereby risking creating unrealistic and unfortunate community expectations about the scope of possible rule changes to reduce overall energy costs.

In a number of specific areas, however, the AER's rule change proposal has identified areas where practical experience shows improvements are possible. Examples of these areas are the case of re-examination of the guidance in the *National Electricity Rules* on estimating the cost of debt, the need to address the known issue of the declining strength of capital expenditure efficiency incentives through a regulatory period, and the need for more realistic timeframes associated with some complex review processes associated with cost of capital estimation. In each of these areas industry concurs that constructive changes are feasible to the existing rule, and make positive proposals building on the AER's suggestions. The ENA also considers that there are a number of mechanisms beyond the current rules framework which provide potentially more effective means of building confidence in the regulatory process. These include:

- the provision of stronger resources and capability to enable the AER to more completely analyse, assess and weigh information provided to the AER through existing regulatory information powers; and

- a set of stronger, well resourced and nationally-focused consumer advocacy arrangements to play a key 'testing' and 'contradictor' role in the regulatory process.

Energy networks aim to support and develop proposals in these areas to advance in the wider energy market policy processes administered by the Ministerial Council on Energy.

The current regulatory framework in electricity and gas was largely put in place over 2006-2008. A major policy priority thrust at that time was providing for the stability for required investment in energy infrastructure. Energy network infrastructure typically has assets with 40+ year lives, where confidence in 40 year or greater year revenue streams is needed to support the investment. This means initial investments made in this phase still need another 35+ years of return, and further investment will be required to meet future demand and accommodate its shifting patterns. The increased level of investment required means that network businesses will need to regularly source new debt and new equity to fund these investments.

The energy network sector has a strong interest in a rules and pricing framework which enjoys the confidence of the community. It is important that customers, providers of capital and policy makers each have confidence that the regulatory regime will promote stable, clearly justifiable pricing outcomes which maximise economic efficiency to the long term benefit of the community. In the view of energy networks there are a number of requirements to promote this confidence, including:

- an incentive based regulatory framework to drive efficiency in operating and capital costs;
- incentives for regulated businesses to forecast accurately; and
- the capacity for the regulator to apply robust and meaningful 'tests' to the efficiency of regulated businesses' proposals and performance, including benchmarking approaches.

A dominant theme of the AER's proposed rule changes is an attempt to overcome information asymmetry, primarily by investing significantly great amounts of unguided discretion in the AER to apply its own determined forecasts and assessments to several key areas of revenue determinations. While this model might appear to be one superficially plausible means of addressing information asymmetry issues, what is lacking from the AER's proposal is a consideration of the 'second round' consequences of effectively removing the existing carefully balanced package of incentives in the current regime to make well-supported network proposals. The AER effectively seeks the discretion to arbitrarily reduce networks proposed pricing based on an unproven assumption that networks will inflate their forecasts, absent procedural and substantive responsibilities to give appropriate weight to the networks proposal and supporting information. If the flow-on consequences of this revised decision-making framework are carefully considered, it suggests that this proposal leads the regulatory system in the acknowledged 'blind alley' of costly and ineffective regulatory command and control measures. It also ignores the fact that if the regulator does not have sufficient understanding of the cost structure and needs of network businesses to allow it to assess the businesses cost forecasts, then it would not appear to have the capability to determine the efficient cost forecast itself.

A central contention of the AER's rule change proposal is that the economic regulator has found itself unduly constrained in properly executing its functions and powers under the existing regulatory regime. This proposition is not supported by either qualitative evidence drawn from AER decisions under the regime, or quantitatively by reference to the range of substantial amendments which the AER has implemented across the first round of network pricing determinations. It should be noted that none of these decisions have yet run their full period of application. Network businesses are extremely concerned that the AER's proposed solution of greater regulatory discretion to compensate for the inevitable lack of knowledge an economic regulator will have of a regulated firms cost structure has the potential to undermine or destroy the AEMC's own deliberate policy design which incentivise moderate, well-supported network expenditure proposals and reasoned, evidence-based amendments to these proposals by the AER

A careful review of actual AER decisions shows that the AER can, and has, used benchmarking approaches in a manner which it has suggested is impossible in its own rule change application. For example, the AER has routinely rejected network proposals and substituted lower expenditure forecasts across network decisions, and used a variety of both 'top down' and 'line-by-line' or 'bottom-up' assessments to derive forecasts of efficient costs. Furthermore, the AER appears to be seeking a rule change to enable a specific prescriptive capital expenditure incentive mechanism, despite an existing power to develop such a framework remaining unused in the *National Electricity Rules* since their revision. Taken together these examples provide evidence that the current rules already provide the AER with ample scope to achieve sound and efficient network pricing, terms and conditions.

In the area of cost of capital estimation processes, the AER has similarly failed to make a strong case for changes to existing arrangements. Critically, the 'converged' review process suggested by the AER, because of its design features, lacks the flexibility to deal with the type of challenging and rapidly evolving capital market conditions which have tested the existing framework (and the cost of capital framework

contained in Chapter 6A in particular). A combination of changed capital market conditions, and errors in AER decision making in respect of WACC estimation and methodologies has made cost of capital an area of significant ongoing debate in the first phases of the existing regulatory regime. This is unsurprising given the capital intensive nature of network infrastructure, and the critical role that the cost of capital plays in incentivising and underpinning ongoing network investment. The GFC, changes to previously adopted market benchmarks for the market cost of debt, and AER errors (many of which were conceded by the regulator before the review body to be errors), also contributed to this outcome.

The National Electricity and Gas Rules underwent a process of extensive regulatory design and deliberation by MCE and the AEMC over the period 2006-08. This process was informed by the findings of a series of reviews such as the MCE's appointed *Expert Panel on Energy Access Pricing*. A notable feature of each of these policy and rule processes was the close regard to designing a regime with incentives for efficiency and the promotion of accurate forecasting approaches.

Indeed, a range of issues raised as apparently new matters within the AER's rule change were actually specifically anticipated and informed the original design of the rules. This fact, and evidence from experience under the existing operation of the regulatory regime, provides networks with significant confidence that the current framework broadly achieves a balanced and effective incentive-based framework which promotes the National Electricity and Gas Objectives.

Through this process, however, it is possible that the AEMC will uncover areas where it believes there are limitations in the regulatory regime which do not permit the original design objectives of the framework to be met. In these circumstances, the network sector is keen to engage in a constructive and collaborative process which provides the confidence to network owners and investors that regime 'fine-tuning' delivers a balanced and improved framework which further promotes the long-term interests of consumers.

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2. Background

2.1 Approach and structure of response

The submission is structured in accordance to questions raised in the AEMC Consultation Paper published on 20 October 2011 in relation to the AER rule change proposals. The AEMC Consultation Paper invited stakeholders to provide commentary around the following questions:

- **The problem.** Do you agree with the extent of the problems with the framework for economic regulation of electricity and gas networks as characterised by the AER?
- **Prescription and discretion.** Have the proposed rules achieved the right balance between prescription and discretion?
- **AER's use of its discretion.** Could the AER instead achieve the same outcomes through greater use of the discretions it currently has, avoiding the need for expanding these discretions?
- **The solution.** On the basis of the problems raised by the AER, are there any more preferable solutions to those problems?

The submission also provides commentary around the issues raised in the AEMC Consultation paper published on 3 November 2011 in relation to Energy Users Rule Change Committee proposals.

The remainder of the submission is structured as follows:

Section 2 sets out the network perspective on the performance of existing regulatory framework and outlines a range of valid reasons that have contributed in the network tariff increases.

Section 3 summarises high level industry response to the AEMC issues for consultation (p.16)

Section 4 provides detailed industry response to the AER rule change proposals. It separates the proposed rule changes in seven streams and then provides a response to each of the questions raised by AEMC in its Consultation Papers for the rule changes that fall within those streams. This section also addresses issues raised in the Energy Users Rule Change Committee proposals in relation to estimation of the debt risk premium (Section 4.6). The seven streams are as follows:

- Capital and operating approval framework (Section 4.1, p.21);
- Capital expenditure incentive framework (Section 4.2, p.30);
- Use of actual and forecast depreciation (Section 4.3, p.34);
- Introduction of new incentive schemes (Section 4.4, p.36);
- Treatment of shared assets (Section 4.5, p.38);
- Determination of rate of return (Section 4.6, p.40); and
- Regulatory decision making process (Section 4.7, p.56).

The submission should be read together with the attached expert reports that provide supportive evidence on four major areas of the proposed rule changes:

Attachment A Joint Report – *Assessment of AER's proposed WACC Framework*

Attachment B Joint Report – *Design of Capital Expenditure Incentive Arrangements*

Attachment C Joint Report – *Assessment of the AER's Rule Change Proposal for Forecast Expenditure*

Attachment D Gilbert and Tobin Report – *Assessment of proposed changes to regulatory decision making process under the National Electricity Rules*

2.2 Network sector perspective on role and performance of current framework

2.2.1 Introduction

Network businesses have a vital interest in an efficient and stable regulatory regime. The existing regime was designed to give businesses the confidence and regulatory certainty to invest in long-lived assets. That need is even greater now with businesses in the process of investing $55 billion to operate and expand networks.

The AEMC review is occurring at a testing time for network businesses. It is undeniable that network costs are rising steadily. As costs rise, energy users will naturally question the reasons for rising charges, the performance of the regulatory regime, network businesses, and the relevant regulatory bodies.

ENA members recognise that there are legitimate public concerns about the economic and social impact of higher electricity prices. ENA accepts that network costs are a major factor in these rising prices in some jurisdictions. ENA members are concerned that some stakeholders appear to be losing confidence in the regulatory regime. This loss of confidence needs to be tackled.

Equally importantly, however, higher network costs are *not* of themselves any proof of failure of the regulatory regime in energy, or the regulatory bodies which currently apply them.

An increase in network costs compared to historical expenditure under past regimes is not sufficient to prove that the current regime is flawed.

Past regimes operated under different market conditions and often had different priorities. The growth in peak energy demand and the need to replace ageing assets have become more important drivers of network costs. New taxes and charges, such as the easement land tax in Victoria, have been introduced. The global financial crisis has raised the cost of capital. Other input costs faced by network service providers have risen faster than general price movements.

It also needs to be recalled that past regulatory regimes delivered less reliable service, whereas the introduction of the current regime coincided with policy decisions by some governments to raise reliability standards. A meaningful comparison of historic and current expenditures needs to take into account all variables applying to network businesses before sound conclusions can be drawn on the role of the regulatory regime. At face, the regulatory regime appears to have worked in that the required additional network investment has proceeded.

The overriding pressure on network businesses is to meet market demands. It is accepted by all commentators, including the AER, that higher network costs are being driven by multiple factors:

- Investment in ageing assets and asset replacement, moving from a period of unsustainable low spending and improving asset utilisation towards a reinvestment phase;

- Increasing investment to meet growing peak demand;
- Substantial requirements to connect renewable energy sources to the NEM;
- Connection of remote renewable generation to the grid;
- Higher cost of capital due to the Global Financial Crisis;
- Continuing pressure on labour and material input costs; and
- Higher reliability standards in major jurisdictions.

It is undeniable that all these factors contribute to higher network costs. Changing aspects of the regulatory regime will have little if any impact on these fundamental drivers. A debate which focuses solely on changing the regulatory process will risk creating unrealistic expectations.

In this submission, the ENA offers the industry perspective on the various claims made for regulatory change. ENA agrees with the AEMC that the first step must be a strong factual case for change. In this regard the actual evidence provided in the rule change proposals is minimal. This submission, using evidence, will show that much more is needed to justify the proposed fundamental rule changes to what is still a relatively new regulatory regime.

The AER's rule change proposal would effectively overturn major elements of the 'fit-for-purpose' model of guided discretion deliberately designed by the AEMC and MCE Expert Panel on Energy Access Pricing. The AER is seeking to expand areas of unguided discretion on key issues as its solution to what it argues is the information asymmetry between industry and regulator. This approach could undermine the rigor and transparency of the process. In the view of industry, it would be extremely concerning if the 'solution' to the inevitable presence of some degree of information asymmetry inherent in economic regulation were to be wrongly identified as increasing and unguided discretion, which would not address the core issue. Rather, a sound regulatory design principle is to use well-calibrated incentives to promote and encourage desired outcomes in ways which do not result in the crude substitution of regulator-driven judgments in place of appropriately sound commercial decisions relating to the delivery of complex, costly operating and capital expenditure programs to meet mandated standards of reliability, safety and security of supply.

The network sector considers confidence in the regulatory process is critical to the National Electricity and Gas Objectives being met. The current rule change applications by the AER and energy users groups are indications that there is the potential for confidence in the regulatory process to erode and be lost over time. The network industry considers there are a number of opportunities to enhance and restore this confidence, both within and beyond the immediate national energy rules. Amongst the possibilities for reform ENA wish to see considered are:

- *Enhancing the capability of the AER* – With its new regulatory responsibilities, the AER has a clear need for additional resources to strengthen its analytical capacity;
- *Enhancing consumer participation* - Increasing the capability of consumer advocates to participate in all aspects of the regulatory process, possibly including the development of a well-funded, national centralised consumer advocacy body;
- *Ensuring the rules have appropriate incentives for efficiency* – Opportunities exist to improve the incentives under the *National Electricity Rules* for efficient capital expenditure over the regulatory cycle; and

- *Benchmarking* – Network businesses support the application of robust benchmarking techniques to test for efficiency of network performance and inform regulatory decisions in ways which take into account different network characteristics and operating environments

These changes would address clear weaknesses in regulatory performance without creating policy uncertainty or the risk of unforeseen consequences. Broadly, subject to these areas of opportunity, the network sector considers the existing rules can operate as intended and deliver the appropriate incentives. Following an examination and testing of these issues in the rule change process, the sector is open to changes if it is established they do to deliver incentives consistent with the promotion of the National Electricity and Gas Objectives

2.2.2 Goals and objectives of the existing framework

The starting point for any assessment of any rule changes should be a careful and considered assessment of the objectives and role of the regulatory regimes in energy, together with an empirically based assessment of its performance against these roles and objectives.

That the conduct of such an assessment falls to an independent market development and rule making agency is part of the inherent strength of existing regulatory arrangements, providing a practical balance between an approach of concentrating wide discretion in the hands of the economic regulatory bodies and inflexibility of regulatory frameworks that are solely legislated. The rules-based approach provides for a positive degree of stability and certainty consistent with the long-term nature of investments being required of networks.

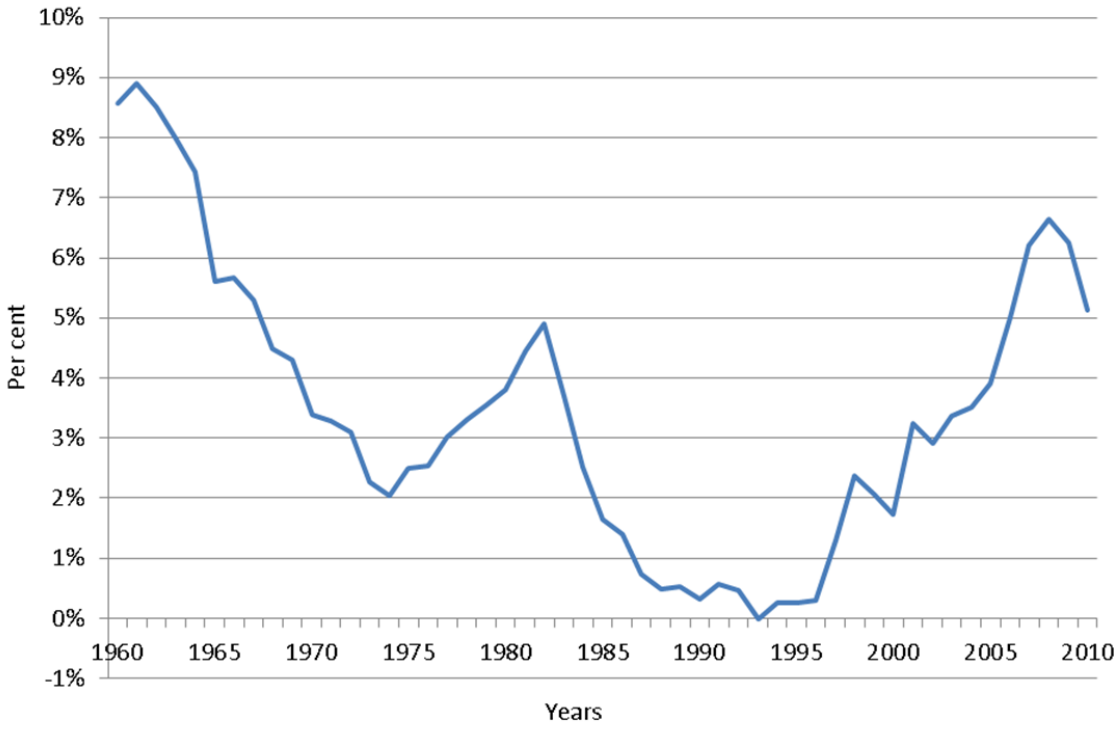
Guiding the development of the National Electricity and Gas Rules was the National Electricity and Gas Objectives. Consistent with these objectives the current regulatory regime was designed to foster efficient pricing and meet an anticipated increased investment task over the coming decade. In particular, the regime is designed to give sufficient confidence to investors to make investments in assets with working lives of 30-40 years.

Further critical guidance is also provided by the national revenue and pricing principles contained in the National Electricity and Gas Laws, which provided, inter alia, that network businesses must be provided with a reasonable opportunity to recover the efficient costs of providing regulated services.

Empirically, it is demonstrable that the new regime has provided the confidence to make increased investments to meet growing consumer demand, and increasing peak demand, in a safe and reliable fashion. To date, the AER has indicated its approval of $55 billion of planned capital and operating expenditure, as expenditure consistent with the need to renew, expand and operate energy networks over the next set of regulatory periods. Network businesses are now in the process of delivering this investment program, which will underpin customer reliability and standards of service over coming decades.

Figure 1 below illustrates at a national and utility wide level the type of reinvestment task facing the network sector, and the significant replenishment of net capital stock that has been undertaken in the past decade. This illustrates the cyclical nature of the network sector, and emphasises that the infrastructure sector generally is emerging from a ‘low’ point in the investment cycle.

Figure 1 – Growth in utilities net capital stock



Source: ABS, Australian System of National Accounts, 2010-11

2.2.3 Recent electricity price rises

A series of reports and commentaries in the context of recent increases in final electricity prices have raised questions over aspects of the operation of the *National Electricity Rules* framework, but it is important to highlight that the range of concerns also encompass and reflect wider public policy issues such as ownership arrangements, the cost effectiveness and price impacts of a range of State, Territory and Federal emissions abatement and renewables development policy measures, comparisons between the practices and effectiveness of previous jurisdictionally-based regulatory bodies and the AER.

It is important in this context for the independence, transparency and predictability of the regime for changes to the *National Electricity Rules* to be considered and evidenced with close reference to the National Electricity Objective, by identifying where issues of concern are either rule related, rule application related, or related to wider energy and public policy.

2.2.3.1 Investment in ageing assets and asset replacement

The rise in network prices has had a range of contributing causes. One of the most significant has been the requirement to increase network investment to replace and upgrade ageing assets reaching the end of the asset lives. This need has driven increased operating and capital expenditure. The AER, in a series of decisions approving increased expenditure over past historical allowances has acknowledged this as a critical factor.

While the average age of assets varies significantly between networks, across eastern Australian states it is approximately 28 years. This average figure, however, obscures the fact that a large set of electricity

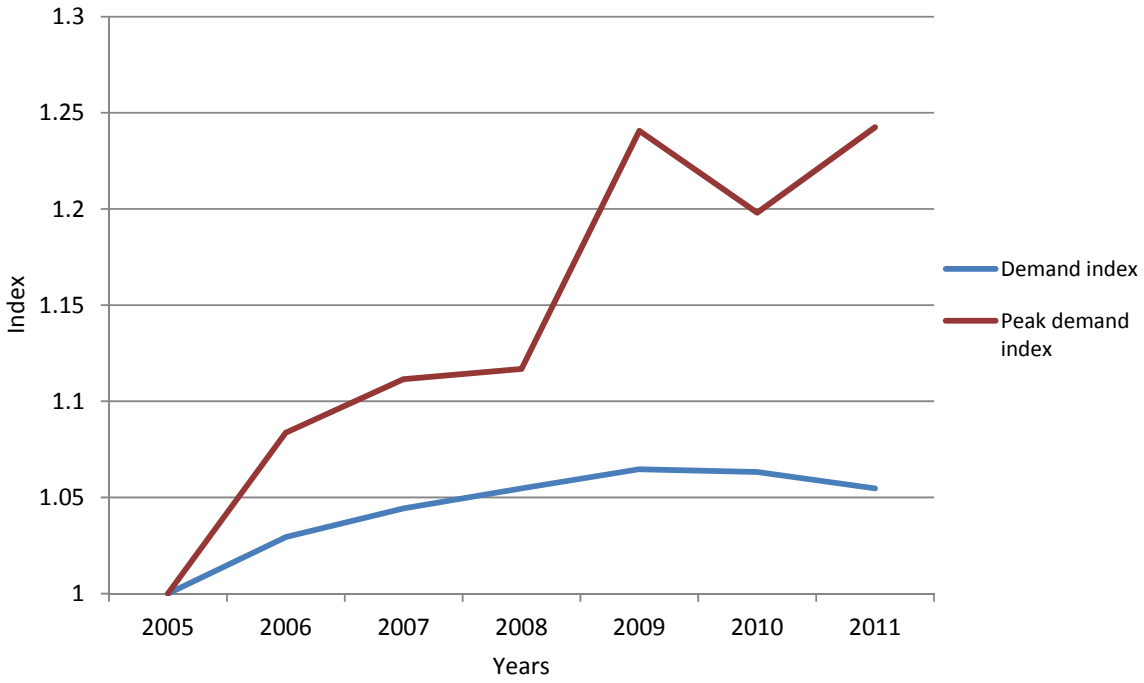
network assets created in the period of widespread electrification of Australian cities, towns and regional locals between the 1950s-60s are now coming to the end of their useful lives.

As a specific example of the above trend, United Energy Distribution (a Victorian electricity distribution network) reports spending approximately $10 million per year on asset replacement in the mid-1990s. This level of asset replacement equates to an implied life of approximately 200 years for United Energy's assets, compared to an economic and engineering life of around 40 years. By contrast, the same network now spends approximately $60 million per year on a replacement value of around $4.0 billion, giving an implied life of approximately 70 years. Whilst this is much closer to the engineering and economic life of the assets, it is notable that a gap still remains.

2.2.3.2 Increasing investment requirement from growing peak demand

A significant driver for increases in network prices has also been a growing investment requirement arising from the consistent trend towards higher peak demand affecting electricity distribution networks. Reliably meeting this peak demand has significant network investment requirements, including the provision of network capacity to meet peak, rather than average demand or usage. This trend is illustrated by Figure 2 below, which tracks the increasing divergence of peak and total demand across Australian electricity infrastructure.

Figure 2 – Peak and total demand index



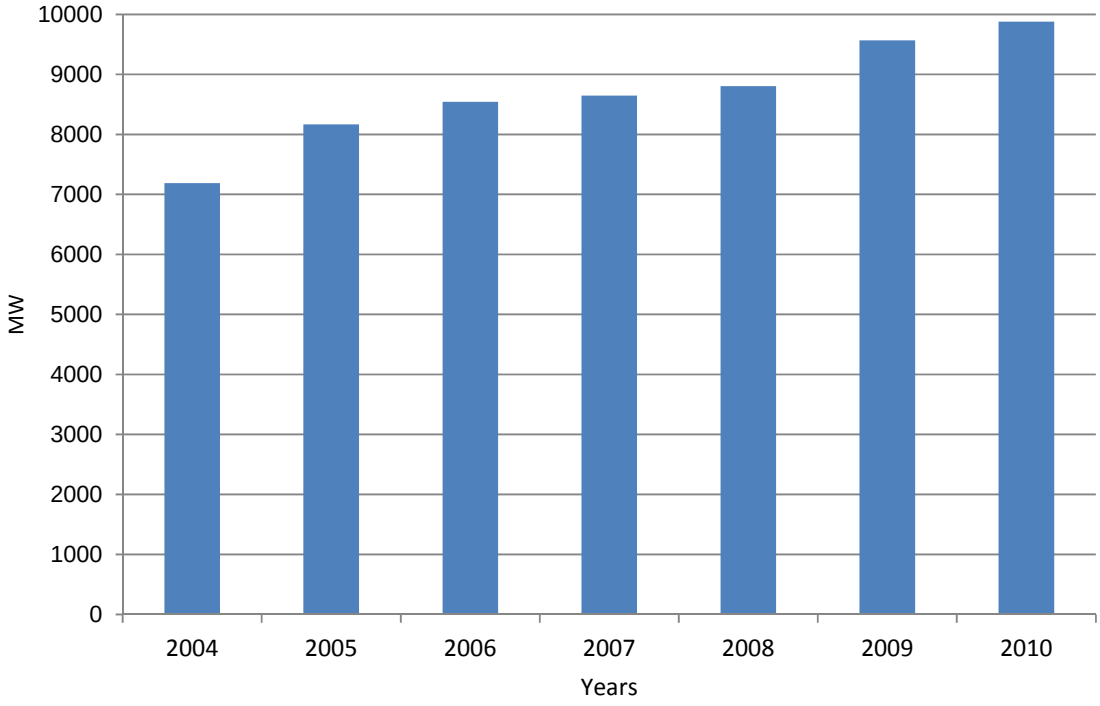
Source: AEMO, Electricity Statement of Opportunities 2011

2.2.3.3 Substantial requirements to connect renewable energy sources to the NEM.

A further factor in increasing networks costs has been the substantially increased level of investment required to connect a growing installed base of renewable energy sources to national energy markets. This can take a number of forms, but can typically include the connection of relatively remote renewable

sources to existing grid infrastructure, and required upgrading of the grid to ensure this energy source is effectively made available to consumers in the NEM. Capacity of renewable generation has grown substantially from 2004-10 (See Figure 3 below). By 2020, the Renewable Energy Target is set to expand this capacity to around 45,000MW, or approximately 4.5 times its current capacity.

Figure 3 – Capacity of renewable generation – 2004-2010



Source: ESAA, Electricity Gas Australia

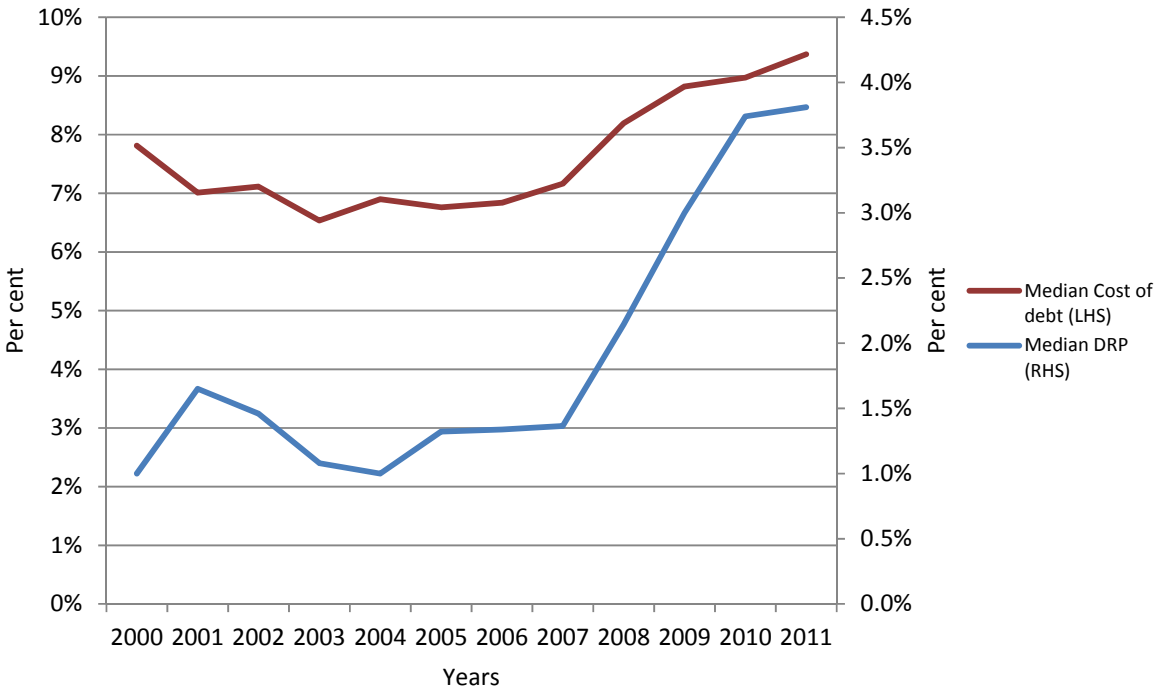
2.2.3.4 Global financial crisis and rising cost of funds

A further significant contributor to the cost of network charges has been meeting the higher costs of securing the financing of new and ongoing capital investment in the context of the GFC and continuing challenging conditions in global capital markets.

The capital intensive nature of network investment requires regular and significant financing activities by network businesses. As an example, Australian network businesses regularly raise substantial finance through Australian corporate bond markets, overseas bond and private placement markets and a variety of other means including bank debt. The cost of these funds have increased significantly compared to market conditions generally prevailing over 2002-2007, driven by rising debt risk premium approved by regulators in response to tightening conditions in the market for funds (See Figure 4 below). Notionally, the average annual debt refinancing task facing electricity transmission and energy distribution is in excess $4.0 billion.[1]

[1] This assumes an average tenure of debt of 10 years, and a benchmark gearing level of 60 per cent of the RAB.

Figure 4 – Median regulated cost of debt and debt risk premium allowances



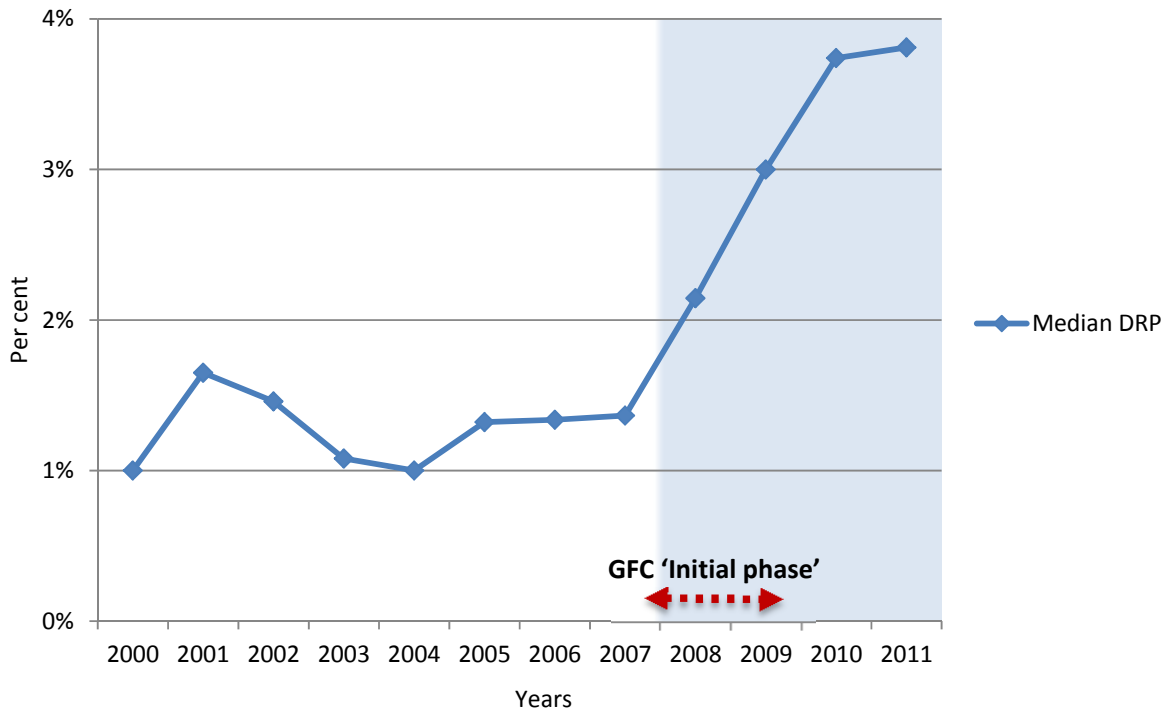
Source: ENA analysis and regulatory decisions

Figure 5 overleaf provides further evidence of the significant step change in the debt risk premium, or the margin over the risk-free rate in final regulatory decisions over the course of the last decade. The blue shaded area represents the sharpest phase and aftermath of the GFC, which has resulted in a significant and persistent re-pricing of risk which is most clearly observable in listed corporate debt markets.

Regardless of the debate surrounding the methodology for measuring the debt risk premium and overall cost of debt, the yields of a wide range of listed bonds demonstrate a step-change in the cost of debt financing, which also implies a tightening of supply of new equity capital. In Figure 5 it can be seen that approved debt risk premium has recently increased from approximately 150 basis points above the risk-free rate to around 350 basis points.

Using standard assumptions applied in current regulatory settings, this externally driven increase in the cost of financing could be expected to increase the cost of annual financing of network businesses by around $800 million per annum over circumstances that prevailed in debt capital markets in 2002-2007. Financial market theory would suggest that the largely unobservable cost of equity financing would have increased by at least an equivalent proportional amount, though regulatory decisions to date have provided only a temporary and partial recognition of these probable conditions.

Figure 5 – Median regulator determined debt risk premium allowances - GFC



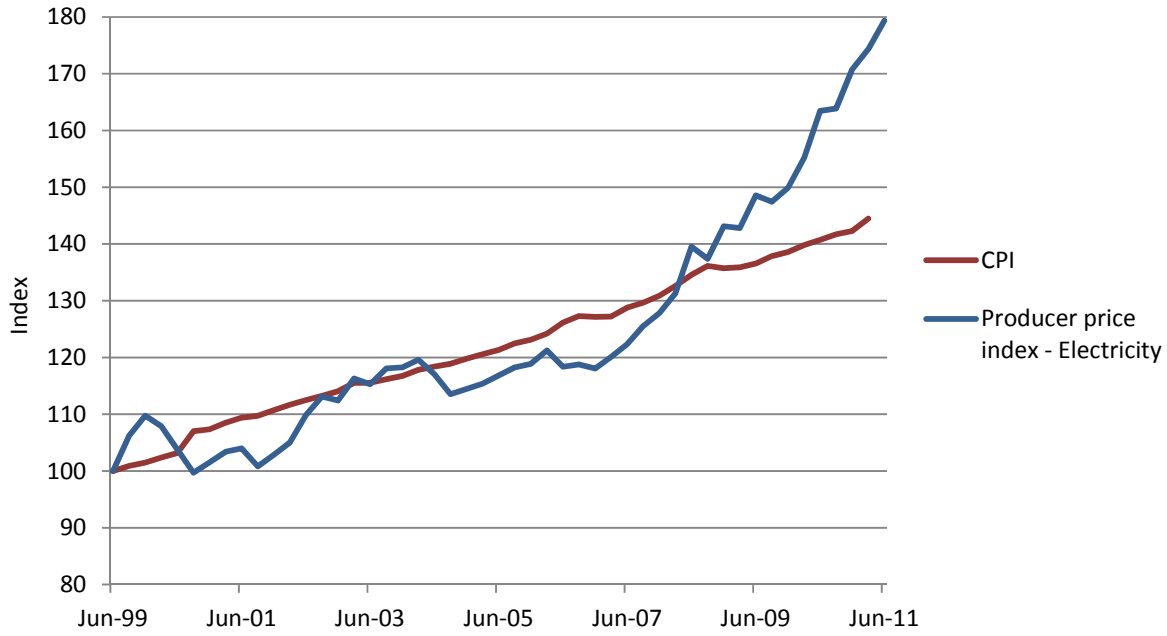
Source: ENA analysis and regulatory decisions

2.2.3.5 Continuing pressures on labour and material costs in the context of competition from rapidly expanding resources sector

A further source of rising network charges has been rising costs of key inputs. This has driven the cost of network capital expenditure. As an example, the costs of critical capital inputs such as aluminium, steel, copper and crude oil are expected to rise significantly, with the AER forecasting real increases in 2011 of between 14-22 per cent. Real increases in the cost of labour of over 2 per cent per year are also expected in the majority of jurisdictions over the next 4 years.[2] An indication of the magnitude of these cost pressures which have underpinned a trend rise in the level of capital expenditure is given in Figure 6, which compares movement in the producer input pricing index in electricity with CPI.

[2] AEMC *Future Possible Retail Electricity Price Movements*, p.ii

Figure 6 – Producer price index in electricity and CPI (1999-2011)



Source: ABS, Consumer Price Index June 2011, Producer Price Indexes June 2011

2.2.3.6 Increased reliability standards

A contributing driver to price increases in some jurisdictions has been increasing reliability and performance standards. Both New South Wales and Queensland implemented significant amendments to reliability obligations placed on network businesses over the past decade, which have required additional augmentation investment.

As an example, modified license obligations in New South Wales, and an adopted State Plan target to achieve average electricity reliability of 99.98% by 2016, materially contributed to required capital investment programs approved by the AER in the 2009 price review for (then) EnergyAustralia, Country Energy and Integral Energy. One key driver for this was an emphasis on a deterministic approach to network planning and standard setting, in contrast to the adoption of 'probabilistic' approaches to managing the risk of major disruptive events. The NSW Electricity and Prices Inquiry noted that the AER assessed pass through of associated capital expenditure costs totalled around $1.5 billion. While the impact between individual businesses varied based on their operating circumstances, up to 17% of the total capital expenditure of some electricity businesses were effectively driven by these enhanced obligations. The report also notes that a range of other estimates of the total impact of these changes (averaging around 10% of the total capital expenditure allowance) is likely to be an underestimate, given the multiple classifications possible to capital works which have the effect of enhancing reliability outcomes.

Similarly, the implementation of the Somerville Inquiry in Queensland is estimated to have primarily driven around $1.7 billion (2009-10) of the $5.3 billion of ENERGEX's approved expenditure over the current 5 year regulatory period.

It is noted that separately an AEMC process of review will be examining the operation of reliability and distribution planning standards in NSW. ENA considers these processes have the potential to lead to improved public engagement and processes around the setting, amendment, and customer valuation of reliability and other performance schemes.

3. High-level industry response to the AEMC issues for consultation

3.1 Response to thematic issues raised by AEMC

The AEMC's Consultation Paper issued in response to the lodgement of the AER rule change package invites stakeholders to frame responses to the rule proposals by commenting on four themes:

- The problem;
- Prescription and discretion;
- AER's use of its discretion; and
- The solution.

These themes provide a useful framework within which to structure the ENA's broad response to the AER rule change proposal.

3.1.1 The problem

In general, the AER rule proposal appears to be based on a presumption that significant aspects of the regulatory regime require substantial amendment to achieve their mandated objectives. While the AER has characterised the proposed changes as modest and incremental reforms to bring the energy regulatory 'into line' with international regulatory regimes, or frameworks operating in other utility sectors, the nature of the changes proposed actually represent a significant shift from the intended operation of the existing energy framework. An example of this is the policy effect of changes to operating and capital cost assessment frameworks, which would significantly overturn the MCE and AEMC adopted 'fit-for-purpose' regulatory model, and also open significant discretion for the AER to be able to set aside a business's regulatory proposal and give it little weight in the regulatory price-setting process.

In a number of areas, the AER has accurately identified problems or deficiencies in aspects of the technical drafting or operation of the rules that would be expected to be present in any regulatory regime following a major re-design such as occurred over the period 2006-2008. In other areas of major change, however, the AER appears to not have identified problems, but rather has posited largely unsupported views about the scope of existing discretions under the regulatory regime. It is also of significant concern that in some areas, the AER rule change application appears to confuse deliberate design features of the energy rule environment as inefficient constraints on its power to set cost forecasts on a prudent and efficient basis. A further concern with the AER's identification of claimed systematic problems with the existing *National Electricity Rules* surrounding capital expenditure and operating cost forecasts is that given the relatively recent introduction of the current framework, it is often difficult to assess whether the AER's proposal actually represents a valid critique of the regime as it currently operates, or the existing largely jurisdictionally based regime (in the case of electricity distribution) of highly discretionary regime (as operated by the ACCC under the previous *National Electricity Code* for electricity transmission).

As noted in Section 2, the network sector considers the major components of the existing NER/NGR have provided a sound economic regulatory framework through the fundamental incentive-based model which should be allowed to operate as intended. It is acknowledged that there are a number of practical improvements and refinements particularly surrounding regulatory process issues where the problems identified by the AER are substantive in effect and worth addressing through the rule amendment process. These are identified in the remainder of Section 4 of this submission.

3.1.2 Prescription and discretion

The issue of the balance between prescription and discretion is central to sound design of a regulatory framework. In different conditions, varying levels of discretion and prescription around aspects of the regulatory framework are appropriate. One of the core areas of expertise for a rule-making body such as the AEMC is striking the correct balance between prescription and discretion, recognising that providing of discretion can be justified in some areas, but that no continuous or generally applicable rule applies through time to setting the level of appropriate discretion across an entire evolving regulatory framework.

The approach adopted for the regulation of both electricity and gas frameworks over the 2006-2008 period of reform was a movement towards a 'fit-for-purpose' model, featuring guided discretion to the AER in the exercise of its economic regulatory functions. This recognised that the degree of discretion and prescription will vary within the regulatory framework based on factors such as the asymmetrical consequences of regulatory error and the scope for a balanced package of incentives to lead to realistic estimates of proposed expenditure. Other important design factors in selecting between possible degrees of discretion are the degree to which prescription can offer investment certainty which lower the cost of financing long-lived investments, or the capacity of prescribed rules to codify established regulatory practice.

ENA considers that in some of the most critical areas across the regulatory framework, relating to approval and decision-making criteria for operating and capital cost forecasts, the appropriate balance of prescription and discretion has been struck by the MCE and the AEMC in the largely common frameworks applying to electricity transmission and distribution.

In other areas, however, a closer re-examination of the balance is warranted, as experience under the regime has highlighted possible short-comings in current arrangements. As an example, the Global Financial Crisis, for example, has highlighted the risks of over-prescription affecting the capacity of cost of capital decisions (particularly those in the electricity transmission sector) adequately reflecting prevailing market conditions and the best available evidence. Similarly, the GFC exposed what was (in hindsight) an inappropriate degree of prescription and inflexibility in the *National Electricity Rules* (and regulatory practice in gas) in relation to establishing a forward looking cost of debt.

A strong area of concern with the AER's proposals is that insufficient consideration appears to have been given to the deliberately designed model of guided discretion contained in the current economic regulatory regime. The AER rule changes propose a significant widening of discretion in relation to cost forecasts, without clearly establishing a case of the deficiency of existing powers to amend forecasts considered excessive. In relation to the proposed converged generic cost of capital process, the AER appears at risk of effectively codifying the approach found to cope least well with volatile global capital market conditions in evidence since 2007.

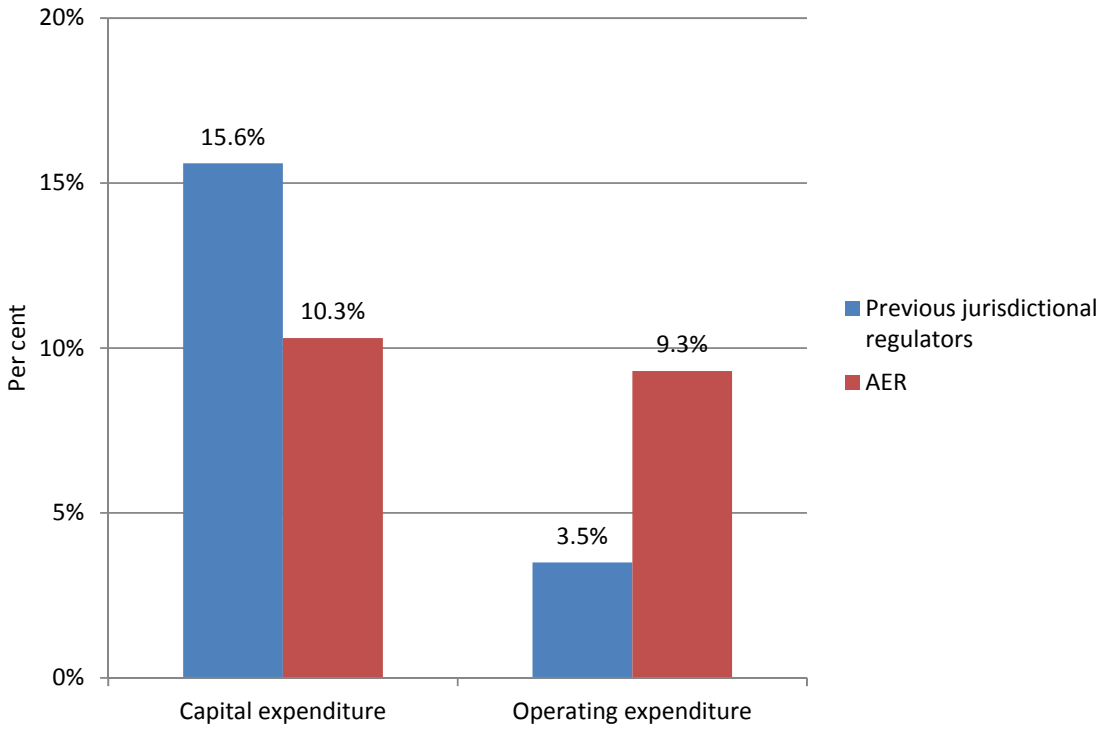
In other areas, such as a proposal to limit the rolling-in of actual capital expenditure in excess of AER approved forecasts to 60% of the value of excess outturn expenditure, the degree of prescription appears to be without precedent in any comparable regulatory regime. Similarly, a proposal for the AER to remove its own discretion as to how to weight or take into account evidence through the regulatory process appears to institute a level of detailed prescription which is unhelpful for a robust and flexible regulatory regime designed to take into account a wide variety of potential circumstances.

3.1.3 AER's use of its discretion

The AER has sufficient discretion to assess and respond to capital and operating proposals, and this is demonstrable when reviewing empirical evidence on reductions made by the AER to proposals. Evidence in this area indicates that the AER's performance in this area compares to previous jurisdiction regulatory bodies, which operated under regulatory regimes which featured relatively high levels of regulatory

discretion. Indeed when the average reductions made to capital and operating proposals lodged by network businesses are considered, the evidence is mixed, suggesting only that whilst the AER has made smaller overall reductions to proposed capital expenditure forecasts, its approach has been significantly more aggressive in respect of operating cost forecast reductions than previous jurisdictional regulatory bodies (See Figure 7)

Figure 7 – Median reductions in proposed capital and operating costs forecasts



Source: ENA analysis and regulatory decisions

One of the important wider aspects of the AER rule change proposal is that in some areas it would significantly impact on the level of discretion available to the AER in future decisions. The ENA notes as a matter of sound policy decision that in areas where high-consequence discretionary decisions with long-term impacts on investments and individual business's commercial rights are being made, it is critical that the accountability of merits review access is present. In the context of the rule change put forward by the AER, which envisages a generic industry wide cost of capital being made with a greater level of discretion afforded to the AER to abstract from the prevailing market conditions facing a benchmark service provider at the time of a network pricing review, appropriate checks on the correct and preferable nature of the administrative decision (not simply its lawfulness under judicial review mechanisms) become critical.

Across a number of other rule change proposals put forward by the AER, it is clear that the genuine issues highlighted by the AER cannot be addressed by decisions open to the exercise of existing AER discretion. An example is the pressure placed by Australian debt market developments on the application of a previously relatively standard regulatory methodology for establishing the benchmark cost of debt. In the same manner, some relatively narrow and prescriptive time-lines for particular regulatory processes have been found to be inappropriate when trialled in the first round of network pricing determinations.

3.1.4 The solution

The ENA considers that across a range of proposals made, the suggested AER amendments to existing energy rules will not provide a solution consistent with the promotion of the National Electricity and Gas Objectives.

Through this submission, the network sector seeks to provide a range of practical solutions to those areas where the sector considers a case has been made that a problem exists that needs resolution through the rule-making processes.

Section 2 has highlighted that networks consider that appropriate solutions to any established problems in the current regulatory framework may fall in part within the scope for rule-making, but also in part in a broader energy policy context defined under existing market governance arrangements as areas for Ministerial and legislative policy action. Section 3.2.1 of this submission also outlines at a high level areas where ENA members consider further collaborative action between AEMC, industry, energy users and the AER would be fruitful in developing possible preferable solutions to those initially suggested in the rule change proposal.

3.2. Suggested areas for key focus in Directions Paper

Energy networks businesses support the proposed extended public consultation process which the AEMC has adopted, in recognition of the breadth, complexity and significance of the rule change packages under consideration. This process provided the opportunity for industry, consumers, regulatory bodies and the AEMC to explore and collaborate on what are complex issues in a way which is likely to promote well-tested, robust, regulatory design choices.

3.2.1 Major areas of suggested future work

Energy network businesses have provided detailed views on regulatory policy design, and supporting expert views across a wide range of issues raised in the AER and EURCC rule change applications. Recognising the complexity of the issues, and the desirability of ensuring that rule changes which advance to a determination phases are informed by a robust process of stakeholder involvement and engagement, there are several issues raised in the rule change proposals which industry has set out initial views, but which would benefit from further collaborative development.

The ENA considers that areas which would be most fruitful to focus detailed consideration on in the additional stages of the rule change process provided for by the AEMC include:

- Carefully assessing and reviewing any evidence relating to the proposition advanced that the capital and operating expenditure criteria and associated guidance in the *National Electricity Rules* have in practice demonstrably constrained the AER's capacity to reject and substitute forecasts in the manner suggested by the AER (noting that there is strong evidence provided in the Joint Report - *Assessment of the AER's Rule Change Proposal for Forecast Expenditure* (Attachment C) that this is not the case;

- Reviewing the guidance provided to the AEMC under the existing efficiency benefits sharing scheme to ensure these principles address all relevant matters to enable a more flexible and workable capital expenditure incentive efficiency scheme to be designed and implemented by the AER;

- Potential means of introducing the positive 'safety valve' features which account for changed in the market conditions for funs present in the *National Electricity Rules* applying to electricity

distribution, and the *National Gas Rules*, into Chapter 6A (See also Attachment A, Joint Report – *Assessment of the AER's Proposed WACC Framework*);

- A considered analysis of alternative mechanisms to derive a debt risk premium estimate, and of the key principles which should by embedded in the *National Electricity Rules* to guide AER discretion in respect of these estimates;

- Examination of an alternative process of 'cross-submissions' to address to the extent appropriate issues identified by the AER in respect of providing a transparent opportunity for all material feeding into a determination process to be publicly tested;

- Reviewing whether an alternative 'optional' Framework and Approach stage might better and more flexibly address the concerns raised by the AER regarding the early stages of a distribution determination process; and

- Review of whether an alternative 'stop the clock' approach might better target the problem identified by the AER, whilst avoiding a wide and general discretion for the AER to unilaterally adjust regulatory assessment processes.

4. Detailed response to rule change proposals

4.1 Capital and operating approval framework

4.1.1 The problem identified by the AER

The first set of proposals put forward by the AER relate to the processes for approval of operating and capital expenditure for electricity network businesses. These processes are currently set out in clauses 6.5.6 and 6.5.7 of the NER for electricity distribution businesses and in clauses 6A.6.6 and 6A.6.7 for transmission businesses.

The AER identifies three related issues with these provisions of the NER, as currently drafted:

- the requirement that the AER accepts a forecast if it 'reasonably reflects' the required expenditure effectively allows NSPs to propose the highest possible forecast and leaves the evidentiary burden on the AER to prove that the forecast is not prudent and efficient. This has resulted in systemically inflated expenditure forecasts being included in the AER's determinations;

- the issue of systemically inflated forecasts is exacerbated in the case of DNSPs by limits in Chapter 6 on the AER amending a proposed forecast 'only to the extent necessary' to make it fall within the range that 'reasonably reflects' the required expenditure. This only allows the AER to amend the forecasts to bring them back to the top of the range (this issue only applies to Chapter 6); and

- the requirement that the AER must base any substitute on the original regulatory proposal locks the regulator into forming a substitute for DNSPs on the basis of a line-by-line assessment of the expenditure forecasts, which restricts it in practice from using benchmarking and assessing matters such as the deliverability of expenditure (also only applies to Chapter 6).

The ENA does not agree with the AER that there is any deficiency in the drafting of the NER with respect to the expenditure approval process. Each of the issues identified by the AER was considered in some detail by the AEMC when it drafted chapter 6A of the NER and clauses 6A.6.6 and 6A.6.7 were designed in a way that addressed these issues. An examination of the evidence from each of the AER's determinations for the DNSPs under the current Chapter 6 Rules does not support the AER's contentions that its analysis has been restricted in the manner it claims. Each of the above issues is dealt with in detail below.

4.1.1.1 Requirement to accept a forecast if it 'reasonably reflects'

The AER argues that this requirement results in expenditure forecasts that are upwardly biased. It is argued that there will always be a range of forecasts that are efficient, prudent and realistic and that NSPs will face incentives to submit forecasts at the top of this range.[3] The AER contends that the current rules have in practice delivered inflated expenditure forecasts which in turn have contributed to the price rises which have been faced by consumers.[4]

The ENA rejects the assertion that its members develop a range of efficient forecasts and then systematically choose the upper bound of this range. NSPs typically assess their minimum operating and capital needs for the forthcoming period and then determine the most efficient way of meeting these

[3] AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules*, September 2011, p 27.

[4] AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules*, September 2011, p 12 & p. 14.

needs on a project-by-project basis. There is no assessment of lower and upper bounds for efficient expenditure on each project, nor is there any costing of unnecessary projects. Moreover, senior management will often be required to verify the truth and accuracy of forecasts that are submitted to the AER by way of statutory declaration, providing a very strong incentive for NSPs to ensure precision in forecasting.[5]

In any event, even if the AER's assertion was true, this does not mean that what NSPs are proposing is inefficient or imprudent, or that there is necessarily a "better" forecast available. The AER's argument simply appears to be that faced with a choice between a "high" and "low" forecast, both of which are prudent and efficient, the NSP will always choose the "high" forecast. The AER refers to allowed expenditure in this scenario as being "upwardly biased", albeit still prudent and efficient.

The premise for the AER's proposal appears to be that it should have greater flexibility to determine the *best* estimate of operating and capital expenditure. The AER's claim is that even though NSPs are only being allowed prudent and efficient expenditure under the current rules, this expenditure is somehow too high and it would be better if the AER could determine a different (presumably lower) prudent and efficient amount.

The AER's characterisation of the "problem" in this way is clearly at odds with the previous reasoning of the Australian Competition Tribunal (**Tribunal**) in *GasNet* and with the rationale for the original drafting of the NER. The Tribunal in *GasNet* and the AEMC in its Rule Determination establishing chapter 6A recognised that in the context of building block regulation, there will not necessarily be a single "correct" value for each parameter. In this context, the role of the regulator should be to ensure that what is being proposed is prudent and efficient, rather than to determine a "best estimate" or "most preferable" outcome.

In *GasNet*, the Tribunal emphasised that it was beyond the power of the regulator under the Gas Code to substitute a preferred forecast where the NSP had submitted a compliant forecast:[6]

> It is clear in the reasoning in *Michael* that there is no single correct figure involved in determining the values of the parameters to be applied in developing an applicable Reference Tariff. The application of the Reference Tariff Principles involves issues of judgment and degree. Different minds, acting reasonably, can be expected to make different choices within a range of possible choices which nonetheless remain consistent with the Reference Tariff Principles. Where the Reference Tariff Principles produce tension, the Relevant Regulator has an overriding discretion to resolve the tensions in a way which best reflects the statutory objectives of the Law. However, where there are no conflicts or tensions in the application of the Reference Tariff Principles, and where the AA proposed by the Service Provider falls within the range of choice reasonably open and consistent with Reference Tariff Principles, it is beyond the power of the Relevant Regulator not to approve the proposed AA simply because it prefers a different AA which it believes would better achieve the Relevant Regulator's understanding of the statutory objectives of the Law.

Similarly, in its Rule Determination, the AEMC recognised the reasoning of the Tribunal in *GasNet* and accordingly drafted the NER in a way that did not offer scope for substitution of 'preferred' forecasts in circumstances where proposals were perfectly compliant. The AEMC deliberately adopted a model of

[5] Under the National Electricity Law (section 28M), where forecasts are provided in response to a regulatory information notice, the notice may require that any information provided (including expenditure forecasts) be verified by way of statutory declaration from an officer of the regulated business. In practice, the AER often requires a statutory declaration confirming that all information provided is true and accurate, and can be relied upon by the AER in making its subsequent determination. Severe penalties apply for making a false declaration

[6] *Re GasNet Australia (Operations) Pty Ltd* [2003] ACompT 6, at [29].

guided discretion (commonly referred to as a 'fit-for-purpose' model) in recognition of the principles articulated in *GasNet*. The AEMC stated:[7]

> Under the Revenue Rule, the AER is required to exercise judgement in deciding whether it is satisfied that the forecasts reflect the specified criteria, having regard to the specified factors. However, the exercise of that judgement is constrained and guided by the need to be satisfied as to the efficiency and prudency of the forecast and that cost forecasts reflect realistic expectations. In exercising its judgement the AER must also have regard to the information provided in the TNSPs proposal and the other evidentiary considerations specified in the Rule. That is, the AER is not at large in being able to reject the TNSPs forecast and replace it with its own. It must also provide reasons in terms of the decision criteria and the factors for both a rejection of the forecasts and their replacement with forecasts that it considers do meet the requirements of the Rule.

Specific legal advice relating to the issue of whether the AER bore any unique 'evidentiary burden' in acting under the proposed Chapter 6A rules was sought and released during the determination process. This advice, led by Neil Williams SC, concluded that the AER could not usefully be concluded to bear such an evidentiary burden under the rules proposed by the AEMC, and dealt comprehensively with many of the arguments now effectively re-raised by the AER following the initial period of operation of the regulatory regime.

The AER now appears to be suggesting that the AEMC should depart from the principle articulated by the Tribunal in *GasNet* and reflected in the AEMC's drafting of the current rules. The "problem" identified by the AER with the current drafting of the NER is that it does not allow determination of the "best" estimate and only allows an assessment of whether forecast expenditure is prudent and efficient. The ENA considers that this is not a problem with the current drafting of the NER, but rather an important feature of good regulatory design.

This is because the Rules aim to complement other incentives on businesses to address the information asymmetry problem and provide reasonable well based proposals. These other measures include sign off by Board members on the assumptions underpinning the expenditure forecasts, the need to meet the AER's information provision guidelines in order to have a conforming revenue cap application, and the importance of providing all supporting information so that it can be considered at merits review. Of crucial practical importance are concerns about putting the AER 'at large' should it reject a proposal. This is specifically intended to provide the relevant businesses with comprehensive proposed expenditure forecasts supported by sufficient information to allow the AER to accept the proposal as reasonably reflecting the expenditure criteria in the Rules. These criteria, in turn, promote efficient and prudent proposals.

The other important consideration is that if there is an overestimate that is accepted it is the actual expenditures during the period that feed into the base levels of expenditure considered at the subsequent reset. This effectively reveals the true costs of the businesses and requires compelling arguments to demonstrate that this does not reasonably reflect future costs. At this stage it is too soon to be able to assess the effectiveness of this aspect of the current regime as no business has completed a 5 year cycle.

The key problem that is sought to be identified by the AER with the 'fit-for-purpose' model is that it offers scope for "strategic forecasting" by TNSPs and DNSPs, which has resulted in upwardly biased expenditure allowances. The ENA notes, however, that this issue was considered in some detail by the AEMC in its Rule Determination establishing chapter 6A and addressed in the drafting of the NER. Recognising the potential for such strategic behaviour in any regulatory process, the AEMC incorporate a number of design features which collectively serve as important safeguards. In particular, the AEMC

[7] AEMC, *Rule Determination: National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18*, 16 November 2006, p 53.

designed chapter 6A to provide maximum incentives for full and frank disclosure of cost information by NSPs, allowing the AER to carefully interrogate each element of the expenditure proposal. The AEMC noted:[8]

> Turning to the Expert Panel's concern about incentives for strategic behaviour, such incentives are a reality in a regulatory process the purpose of which is to determine the future revenue and prices of regulated businesses and thus their future profitability and shareholder value. In this situation, regulated businesses will have an incentive to 'talk up' the forecasts of expenditure required to provide the service under any decision criterion.
>
> However, the Commission considers that the decision making process and criteria specified in the Proposed Rule and maintained in the Draft Rule for assessing expenditure forecasts provide the regulator with sufficient powers and safeguards to be able to achieve regulatory outcomes that are not overly distorted by strategic behaviour on the part of TNSPs.
>
> In particular, the AER's capacity to deal with exaggerated proposals will be strengthened by the requirement for the TNSPs to make a complete proposal (in conformity with AER guidelines) including information and evidence consistent with the assessment criteria in support of their expenditure forecasts. The Commission also considers that the decision making process to be followed by the AER in assessing the expenditure forecasts is more likely to provide an incentive to submit well documented and supported expenditure forecasts rather than to submit forecasts that are grossly exaggerated.

The ENA considers that the framework for assessment of expenditure forecasts has operated in a robust manner. NSPs have responded to the embedded incentives for full disclosure of cost information, resulting in highly detailed proposals being submitted for the AER's consideration and assessment. The AER has also utilised its information gathering powers under the NEL to collect any relevant cost information not provided voluntarily by NSPs.[9] Full disclosure by NSPs has significantly mitigated information asymmetries and allowed the AER the confidence to approve and endorse significant forward program of capital and operating expenditure of over $55 billion over the current regulatory periods.

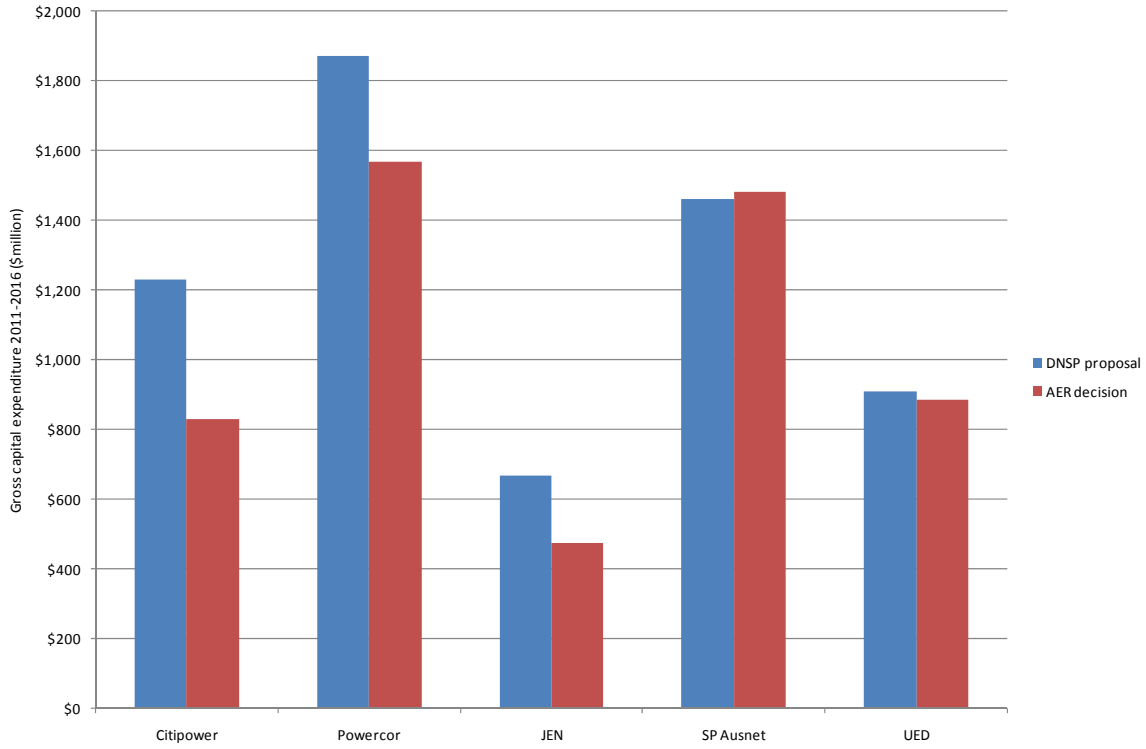
With all relevant information before it, the AER has had ample opportunity to interrogate the efficiency and prudency of proposed expenditure. In all of its determinations, the AER's assessment of submitted information has resulted in it rejecting the NSPs total forecast expenditure and replacing it with its own expenditure forecast. The AER's substituted expenditure forecasts have been up to 30% below those proposed by the NSPs. In its most recent electricity distribution determination, the AER reduced gross capital expenditure across the five Victorian businesses by 15% or $900 million over 5 years, with the most significant reductions applying to Citipower, Powercor and Jemena Electricity Networks (Figure .[10]

[8] AEMC, *Draft Rule Determination: Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006*, 26 July 2006, p 52.

[9] Under Division 4 of Part 3 of the NEL, the AER may issue regulatory information notices to NSPs requiring production of such information as the AER considers necessary for the performance or exercise of its functions or powers under NEL or the NER.

[10] AER, *Final decision: Victorian electricity distribution network service providers distribution determination 2011–2015*, October 2010.

Figure 8 – Forecast capital expenditure for Victorian DNSPs 2011-2016



Source: AER; ENA analysis.

The ENA rejects the assertion that NSPs have engaged in "strategic forecasting" and notes that there has been no significant empirical evidence of this presented by the AER. As noted above, in all cases the AER has rejected the NSP's expenditure forecasts and has substituted its own. In the case of the four TNSP determinations, there is no contention by the AER that there are restrictions in the Chapter 6A Rules which have prevented it from substituting its own view of the expenditure which it considers reasonably reflects the expenditure criteria. Indeed, it is clear from the quote above that the AEMC considered that this ability for the AER to substitute its own expenditure forecast as being a key incentive on the TNSP's not to submit inflated forecasts. It cannot therefore be the case that the AER has been forced to accept expenditure forecasts which it considers to be 'systemically inflated' for the TNSPs. Rather, the AER has rejected the business' forecasts and has been free to substitute its own which is in compliance with the relevant rules. It is notable, for example, that the AER has not identified lack of discretion as a barrier to substitute its preferred capital and operating forecast in any network pricing decision prior to lodging its rule change application.

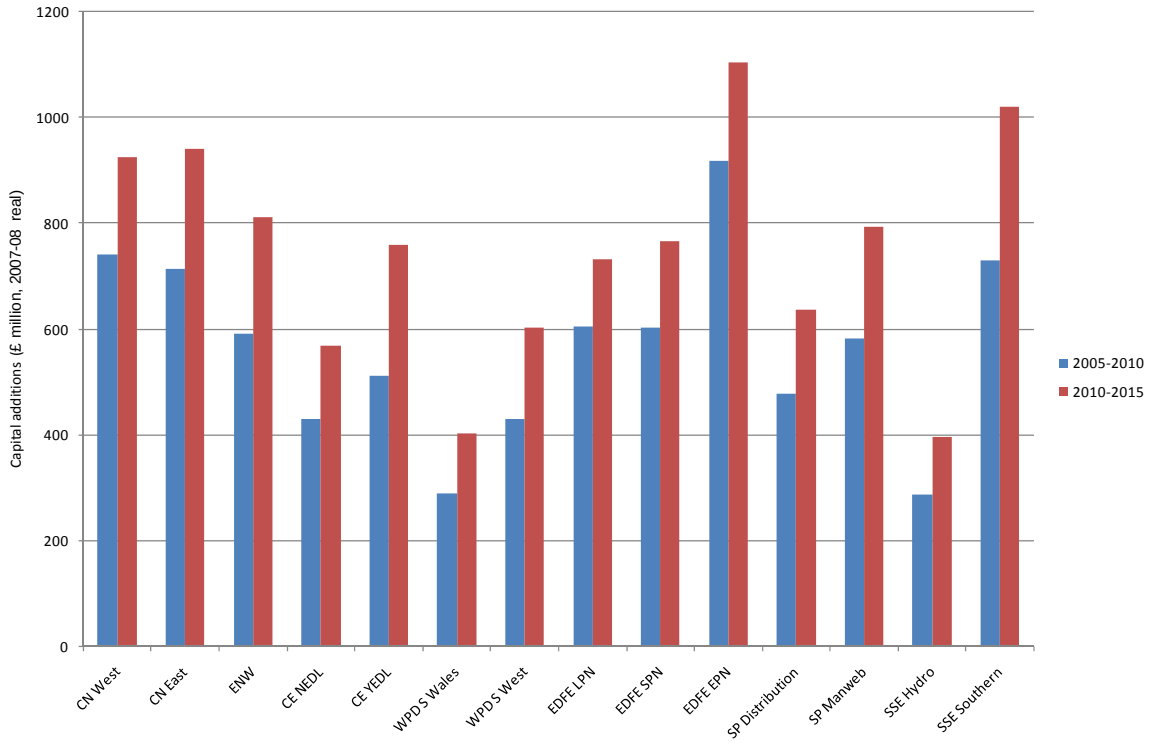
In the case of the DNSPs, the AER's contention is that it has been restricted under the Chapter 6 rules to only making adjustments to bring the expenditure forecasts back to the top of the possible range. However the evidence shows that in making adjustments to particular expenditure categories for the DNSPs, the AER has not in general included any discussion of potential ranges. Indeed, where it has discussed ranges the AER has been explicit about adopting the mid-point of the potential range of forecasts, rather than the upper bound.[11] In other cases, the AER has set individual cost forecasts at zero

[11] See for example AER (2009) *New South Wales distribution determination 2009–10 to 2013–14*, Final Decision, 28 April 2009, p. 172 and p. 138.

due to what it regarded as a lack of supporting information to support proposed expenditure, and had this approach upheld by the merits review body.

The mere fact that expenditure allowances have generally increased from previous periods is not evidence of strategic forecasting or any other problem with the NER. As the AER notes, increases in expenditure allowances have been driven by various factors, including the need to replace ageing assets and meet increased peak demand, growing customer connections and higher reliability standards.[12] The ENA notes that Australia is not alone in facing higher network costs as a result of these factors – in the UK where there has been no significant change in the regulatory regime, Ofgem has recently approved large increases in expenditure allowances (See Figure 9), resulting in real increases in network charges of up to 11% per annum in some areas (69% increase over a 5-year period).[13]

Figure 9 – Real capital expenditure increases for UK electricity distribution (Ofgem allowed)



Source: Ofgem, *Electricity Distribution Price Control Review Final Proposals – Allowed Revenues and Financial Issues*, December 2009.

4.1.1.2 Limitations on AER power to amend or substitute forecasts (Chapter 6 only)

The second issue identified by the AER relates to the process it must undertake to amend or substitute an alternative forecast for DNSPs under Chapter 6, in the event that it finds that the DNSP proposal does not meet the expenditure criteria.

[12] AER Rule Change Proposal, p 6.

[13] The most significant network price increases have been approved for SP Manweb (11.1% per annum over 5 years). On average across the UK, capital expenditure will be 32% higher in real terms in the 2010-2015 period, compared to the 2005-2010 period and network prices will increase by 5.6% per annum (31% over 5 years) in real terms. See: Ofgem, *Electricity Distribution Price Control Review Final Proposals – Allowed Revenues and Financial Issues*, December 2009.

The AER claims that Chapter 6 as currently drafted locks the AER into forming a substitute proposal on the same basis as that adopted by the DNSP. This is claimed to result in the AER bring 'driven' to undertake a "line by line assessment" of the DNSP's regulatory proposal and precludes the use of other assessment techniques such as benchmarking, or consideration of factors such as the deliverability of expenditure. The AER suggests that a line-by-line approach to determining forecast expenditure undermines NSP incentives to pursue the most efficient project mix.[14]

The issue of whether the AER is restricted under Chapter 6 to using the same methodology as the DNSP in forming any substitute expenditure forecast is one which has been explicitly considered by the Australian Competition Tribunal in the *EnergyAustralia and Others* matter.[15] Moreover, in its submission to the Tribunal, the AER argued in support of an interpretation of Chapter 6 which did not restrict it to forming a substitute on the same basis as that adopted by the DNSP.[16] This argument is precisely the opposite to the one which the AER has now advanced in its Rule Change Proposal. The ENA notes that the Tribunal's determination upheld the AER's view that it was permitted under 6.12.3(f) to reject the DNSP's entire methodological approach and adopt some other approach.

Notwithstanding the above, the ENA does not consider it to be a problem if the AER is required to conduct a careful review of each NSP's proposal, including a line-by-line review of expenditure forecasts. Indeed, it appears to have been the intention of the AEMC that the AER be provided with sufficiently detailed information by NSPs in order to facilitate such a careful review. As noted above, incentivising greater information disclosure and facilitating close review by the AER was seen by the AEMC as a means of minimising the risk of strategic forecasting by NSPs. The ENA also notes that the AER has opted to use the same line-by-line approach to assessing and substituting expenditure forecasts for each of its determinations for the TNSPs. There is no contention by the AER that it is restricted by the Chapter 6A rules to taking this approach.

A line-by-line assessment of the NSP's proposal should be necessary for the AER to form a view as to whether proposed expenditure is prudent and efficient. However, the ENA acknowledges that this may not always be *sufficient* for the AER to assess prudency and efficiency, and that other tools may be needed in addition to the line-by-line assessment. Therefore the ENA agrees with the AER that a focus on line-by-line analysis should not be to the exclusion of other assessment tools such as benchmarking and consideration of the deliverability of expenditure.

However, an examination of the evidence provided by the AER's determinations for the DNSPs under Chapter 6 to date does not support the AER's contention that its examination of expenditure forecasts has in practice been restricted by the NER:

- In practice the AER has adopted benchmarking in several of its determinations for the DNSPs. Moreover, where the AER has commented that it has not been able to utilise benchmarking in a particular determination, it has identified the lack of available data as the reason for this restriction, rather than any restrictions in the NER. In some cases, the AER has used benchmarking as a 'sense check' rather than a primary source of information, in recognition of these data and methodological limitations;[17]

- The AER has explicitly considered the deliverability of capital expenditure in all of its determinations for the DNSPs; and

[14] AER Rule Change Proposal, p 30.

[15] *Application by EnergyAustralia* [2009] A CompT 8.

[16] AER, Submission to Australian Competition Tribunal relating to EnergyAustralia [2009] A CompT 8.

[17] For example: AER, *Final decision: South Australia distribution determination 2010–11 to 2014–15*, May 2010, Appendix I (pp 357 – 370).

- The AER has adjusted DNSP's capital expenditure for projects which have not been reviewed in detail, on the basis of the sample of projects that have been examined in detail. The AER's claim that under a line-by-line approach a portion of projects 'will inevitably escape regulatory scrutiny' does not therefore mean that the AER has been unable to make any adjustments to DNSP's expenditure forecasts for these projects.

Further, the ENA does not agree that a line-by-line approach to determining forecast expenditure undermines NSP incentives for efficiency, as claimed by the AER. Once an expenditure allowance has been established by the AER, NSPs are not confined to spending each component or line item that makes up that allowance. NSPs are free to seek out efficiencies and alter their spending mix accordingly and indeed they face strong incentives to do so. Therefore the way in which the expenditure allowance is determined has no impact whatsoever on incentives for efficiency.

4.1.2 Do the proposed rule changes appropriately balance prescription and discretion?

For the reasons set out in the previous section, the ENA considers that the NER as currently drafted strikes an appropriate balance between prescription and discretion. The existing framework allows the AER to assess expenditure proposals and make adjustments as appropriate in order to ensure prudency and efficiency. In making this assessment, the AER may have regard to a range of factors, and is not limited to what is contained in the NSP's proposal.

The AER's rule change proposal seeks a significant expansion of its discretion. The AER considers that it should be able to *determine* rather than accept or not accept/substitute and that in doing so it should not be required to start from the NSP proposal. Whilst the AER suggests that it would go through a similar process of reviewing the NSP's proposal and making an assessment, the rule change that it proposes removes all requirements for it to have regard to the NSP's proposal. The AER's rule change would leave it at large to determine what it considers to be efficient costs, having regard to any factors that it considers relevant, which may or may not include the NSP proposal.

The AER's proposal would endow it with an unacceptable level of discretion and create risk of significant regulatory error. If the AER is to determine forecasts without regard to the NSP's proposal or starting from some other unrelated point, it is likely that forecasts will depart significantly from actual expenditure needs. It is the NSP, not the AER, which best understands the forward-looking expenditure needs of the business and the way in which these needs will be affected by various technical, demand and climatic factors. Accordingly, the AER must be required to start from the NSP's proposal and only make adjustments necessary to ensure prudency and efficiency.

4.1.3 Could the AER's objectives be achieved through existing discretions?

The AER appears to have two key objectives underpinning its rule change proposals in respect of expenditure approval processes:

1. increasing its discretion to determine what is efficient expenditure, rather than being required to accept forecasts that meet prudency and efficiency requirements; and

2. increasing its discretion to determine an appropriate forecast in circumstances where it is not satisfied with the NSP forecast, without being required to start from the NSP's forecast and only make minimum necessary adjustments.

The ENA agrees that the AER cannot achieve the first of these objectives under the NER as currently drafted. However for the reasons set out in Section 2.1, the ENA does not consider this limitation on the

AER's discretion to be a problem with the current drafting, but rather a deliberate and important feature of the regulatory design.

In respect of the second objective, the AER's complaint that the current framework excludes a wider range of assessment techniques is not supported by the evidence from its determinations over the last five years. Whilst the AER is required to start from the network business's proposal in developing a substitute forecast, it may take into account a wide range of factors in assessing the prudency and efficiency of the NSP proposal. These include:[18]

- benchmark expenditure that would be incurred by an efficient network;
- relative prices of capital and operating inputs; and
- any analysis undertaken by the AER of the network business's proposal and/or extrinsic information.

Within this existing framework, the AER may employ various "top-down" techniques to determine whether a NSP's proposal reflects efficient costs, and if not, what adjustments may be necessary to ensure that it does. The AER has in practice employed these techniques, including the use of benchmarking[19] and also its in-house 'repex' model.[20] Therefore the ENA does not agree that an expansion of existing discretion is needed to allow a broader analysis by the AER.

4.1.4 Are there more preferable solutions?

The ENA does not consider that any of the 'problems' identified by the AER are in fact borne out by the available evidence provided in this submission or the independent Joint Expert Report - *Assessment of the AER's Rule Change Proposal for Forecast Expenditure* (Attachment C) which has reviewed this issue closely.

In ENA's view the intent of the AEMC and MCE was to establish expenditure forecast criteria and supporting rules which promoted soundly and well-based regulatory proposals. The empirical evidence from the AER's own practice appears to demonstrate that this has been achieved, without an inappropriate restriction to the AER's capacity to amend and substitute forecast expenditures where required for the regulatory proposal to comply with the rules framework.

The ENA invites the AEMC to review the evidence on this matter closely prior to any action. If the AEMC does consider that there is strong evidence that the intent of the Rules was not carried forward effectively into the text of the Rules, ENA would be keen to work with the Commission to consider and review drafting options available to address this.

[18] NER, clause 6.5.6(e), 6.5.7(e), 6A.6.6(e), 6A.6.7(e).

[19] For example: AER, *Final decision: South Australia distribution determination 2010–11 to 2014–15*, May 2010, Appendix I.

[20] The repex model was developed for the AER in 2009 by Nuttall Consulting and it forecasts replacement capex needs at an 'aggregate level' using age as a proxy for the range of factors that drive individual asset replacements. The AER used the repex model outputs in formulating the AER's alternative forecasts of reliability and quality maintained (RQM) capex, in the case of the Victorian DNSPs. See AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, p. 426.

4.2 Capital expenditure incentive framework

4.2.1 The problem identified by the AER

The AER identifies potential deficiencies in the incentive framework for capital expenditure in Chapters 6 and 6A of the NER. The AER says that the current rules may not provide sufficiently strong incentives to ensure that only efficient investment occurs, and that this is particularly an issue where the regulated cost of capital is higher than the NSP's actual cost of capital.

The ENA agrees that the capital expenditure incentive framework could be improved. Whilst NSPs currently face consistent incentives to improve operating efficiency through the application of the efficiency benefit sharing scheme (**EBSS**) to operating expenditure, there is not the same continuity of incentives for capital expenditure. Since there is currently no equivalent of the EBSS 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. This can create unintended financial incentives for inefficient delay or 'back-loading' of capital expenditure.

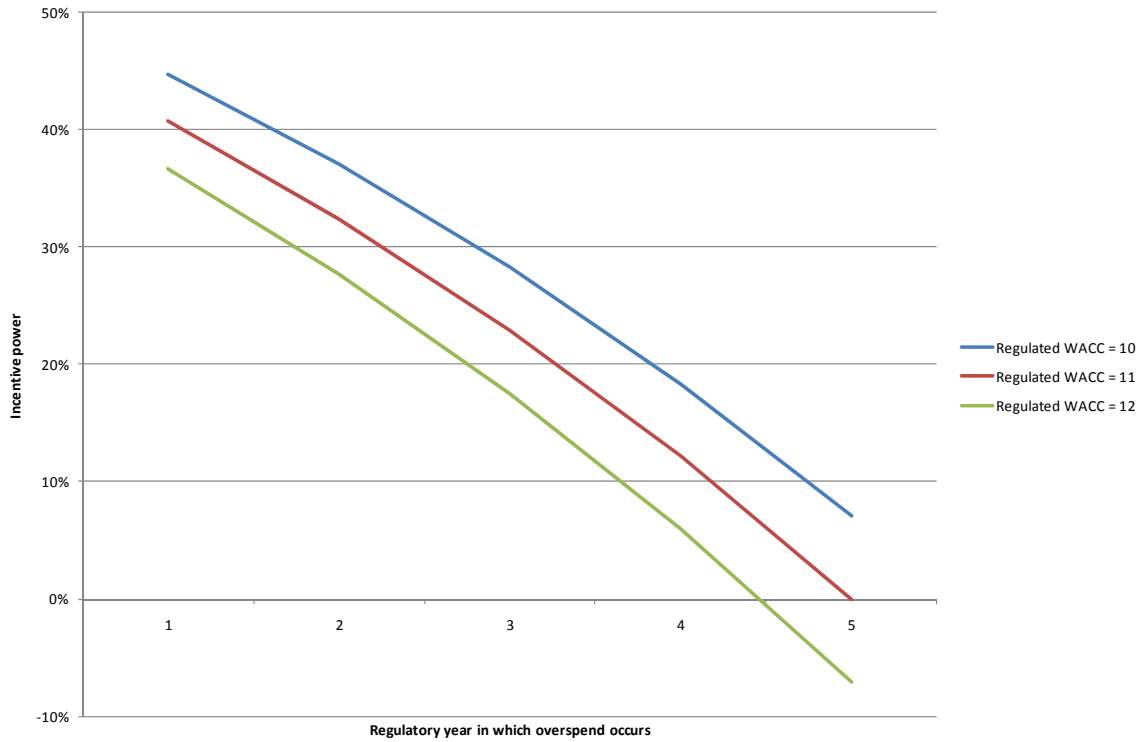
However, it is incorrect for the AER to claim that this issue is accentuated by any current (i.e. "spot rate") difference between the regulated cost of capital and the NSP's 'actual' cost of capital. In order for any current difference between the regulatory WACC and the "true" cost of capital to affect NSPs' expenditure decisions, NSPs would need to believe that the gap would continue into the foreseeable future. However, NSPs cannot foresee how the rate of return will be set in future periods and accordingly any current difference between the regulatory and true costs of capital would be unlikely to bear on current capital expenditure decisions.

As is noted elsewhere, a characteristic of setting the regulatory WACC that is based on the "spot" rate for the cost of debt is that there will be a divergence between the regulatory allowance for debt financing at any point in time, but no reason to believe that there will be a systematic difference between the two over time. We also observe that the AER's (unproven) *assumption* that the current regulatory rate of return is above the true rate focuses only on the cost of debt element of the WACC. Substantial evidence has been presented to the AER over recent years that the global financial crisis and the ongoing turmoil has raised the cost of equity materially, but this largely has been ignored (the half a percentage point the AER added to the market risk premium being a small part of the adjustment that was justified). Evaluated holistically, it is equally plausible that the regulatory WACCs present in recent determinations sit below the true WACC.

Accordingly, we rework the AER's analysis below. The AER's analysis in Figure 6.2 assumes that the NSP can perfectly foresee the relationship between the regulated and actual cost of capital over the life of the asset (assumed to be 40 years), and that its prior knowledge of this relationship will affect incentives for current capital expenditure. In reality, whilst the NSP may have some knowledge of its actual cost of capital going forward it does not have perfect foresight of future regulated returns. Since there is no reason to expect any systematic bias in regulated returns, the NSP can only expect a regulated return roughly equal to its actual cost of capital over the life of the asset.

Figure 10 below is a reworking of the AER's Figure 6.2, with the actual cost of capital fixed (at 11 per cent) and the regulated return allowed to vary – since there can be no expectation of either a higher or lower regulated return over the life of the asset, the power of the incentive for the NSP will simply be as per the red line (i.e. assuming a regulated return roughly equal to the actual cost of capital).

Figure 10 – Strength of incentives under different regulatory assumptions



Notes: Assumes 40 year asset life, actual depreciation. Negative values indicate a possible incentive to over-spend relative to the benchmark

Since current relativities between the regulated and actual rate of return are unlikely to have a bearing on capital expenditure incentives, it is unhelpful to conflate the two issues as the AER has done.

The claim that network businesses have systematic incentives to overspend on capital costs also appears to be in significant tension with claims made elsewhere in the AER's rule change proposal that the dominant incentives facing network businesses are to inflate initial cost forecasts. If this hypothesis was correct, this would suggest any incentive would be to underspend relative to forecast benchmarks. The contradictory nature of these two sets of incentives do not appear to be reconciled as part of the AER's proposal.

The remainder of this section therefore focuses on ways in which the capital expenditure framework can be improved, leaving aside issues associated with the rate of return. The AER's separate concerns regarding the rate of return framework are dealt with in the remainder of Section 4.

4.2.2 Do the proposed rule changes appropriately balance prescription and discretion?

The AER's proposed solution is to hardwire a new capital expenditure incentive mechanism into the NER. The ENA submits that this proposal is unnecessarily prescriptive and may ultimately fail to promote the AER's objectives.

The AER's proposed incentive mechanism would require it to adjust the RAB at the beginning of each regulatory period for the lesser of:

- actual capital expenditure in the previous period; and
- approved capital expenditure for the previous period plus 60% of any capital overspend in that period.

The practical effect of this mechanism would be that any actual capital expenditure would only be rolled in cases where there is any under-spend, but where there is over-spend the AER would roll in the approved amount plus a portion of the over-spend.

The AER would be required to apply this scheme at each price reset and any change in the scheme would need to be approved by the AEMC as a rule change. This is in contrast to the EBSS for operating expenditure which was developed by the AER in consultation with industry (and in compliance with guidelines in the NER) and may be amended by the AER as needs be, consistent with guiding principles set out in the Rules.[21]

The Joint Report – *Design of Capital Expenditure Incentive Arrangements* (Attachment B) on this matter notes that it is inappropriate for the Rules to hard-wire approaches where refinement may be required over time and where important matters of technical detail need to be considered. It also observes that it is likewise inappropriate to hard-wire schemes into the Rules where details of the scheme should be permitted to vary across NSPs. With respect to a capital expenditure incentive scheme, it is concluded on both of these grounds that a capital expenditure scheme should follow the approach taken for the operating expenditure and service target performance incentive schemes and be developed through an AER guideline and further applied in the context of each business. In particular, it is noted that:

- There are a number of important issues of detail that must be addressed to put in place a well-functioning capital expenditure incentive scheme, and that much of the apparent simplicity of the AER scheme stems from the AER having not considered the matter in sufficient depth;
- An argument could be made for aspects of the capital expenditure incentive scheme varying across NSPs or at least between the different sectors – the incentive power in particular is identified as a matter that need not be hard-wired for all NSPs (covering both distribution and transmission).

Aside from the prescriptive nature of this proposal, the ENA considers that it is ill-conceived and will not achieve its stated objectives. Simply applying a flat 40% discount on any overspend will not provide a consistent incentive across the regulatory period. Where an NSP needs to incur over-spend during a regulatory period, it will still face incentives to defer this to the end of the period in order to minimise the extent of unrecoverable financing costs. Therefore whilst the proposed scheme may improve incentives to minimise over-spend generally, it will have the potential to do so at the cost of incentives for efficient timing of capital expenditure.

The asymmetric nature of the proposed incentive may also undermine its effectiveness. Since the 40% discount is only applied to over-spend and a symmetric premium does not apply to under-spend, the NSP will face different incentives for efficiency depending whether it expects to under- or over-spend over the course of the regulatory period. If the NSP expects to under-spend, it will face the same incentives as at present, thus not fixing the issues the AER has identified.

A further issue arises from related rule changes intended to ameliorate the potential for this rule to lead to the deferral of demonstrably prudent and efficient expenditure. Specifically, the proposals relating to

[21] NER, clause 6.5.8.

capital expenditure re-openers and contingent projects may be workable for large discrete projects, but are unlikely to prove as workable for demand or customer-driven capital expenditure.

4.2.3 Could the AER's objectives be achieved through existing discretions?

The AER already has discretion under Chapter 6 of the NER to develop an EBSS with application to capital expenditure for distribution. Under clause 6.5.8 of the NER, the AER *must* develop an EBSS applying to operating expenditure and an EBSS *may* also apply to capital expenditure.

Subject to the comments below, the ENA considers that this existing discretion should be used by the AER to develop an EBSS for capital expenditure, rather than a scheme being hardwired into the NER as is being proposed. Use of this existing discretion would result in a more effective scheme being developed, as the AER would need to have regard to factors set out in the rules designed to guide the operation of such a scheme (including the need to provide a continuous incentive) and would be required to consult with industry on development of the scheme.

The ENA notes that this discretion does not currently exist under Chapter 6A. In the following section it is proposed that this discretion be extended to Chapter 6A. In addressing the issues the AER has raised, and before the scheme is extended to transmission, the network sector considers that it is important for the AEMC to take the opportunity presented by the rule change application in this area to review the quality of the guidance that currently exists in relation to efficiency benefit sharing schemes in Chapters 6 and 6A. This is discussed further below.

4.2.4 Are there more preferable solutions?

Instead of hardwiring an incentive scheme into the NER, the ENA proposes that the AER be given discretion to develop a scheme in accordance with the NER consultation procedures. As noted above, the AER already has this discretion under Chapter 6, but not under Chapter 6A. Subject to the comments below, extending the discretion to Chapter 6A would involve a relatively simple amendment to clause 6A.6.5, to insert an equivalent to clause 6.5.8(b).

However, at the same time and given this potential expansion of these clauses, it is appropriate for the AEMC to review the guidance that is provided to the AER under the existing EBSS provisions to ensure that this directs the AER to consider all relevant matters and that appropriate safeguards exist. The Joint Expert Report has considered this matter and has concluded that while the current guidance is broadly appropriate, material matters are omitted, which include a requirement for the AER:

- explicitly to consider the 'incentive power' of the scheme;
- to have regard to the combined effect of all other incentive schemes and regulatory obligations;
- to consider measures to address the risk under the scheme associated with exogenous events, including to allow for such events in the calculation of efficiency gains/losses and/or to set quantitative limits to the outcomes under the scheme.

As noted above these matters are potentially complex and the ENA is still giving consideration to the principles that ought to apply in development of incentive schemes for capital expenditure. Whilst the Joint Expert Report provides some initial guidance on relevant economic principles, further consideration needs to be given to how such principles are to be codified and taken into account in the development of new schemes. One particularly important consideration in this regard will be the possible differentiation of schemes as between classes of NSPs to take account of differences in the nature of capital investments and different service standards applying to DNSPs and TNSPs. The ENA would welcome further consultation on the development of these principles.

4.3 Use of actual or forecast depreciation

Under Chapter 6 of the *National Electricity Rules* the AER has flexibility to adopt either actual or forecast depreciation for rolling forward the regulatory asset base for DNSPs. However, chapter 6A requires the AER to use actual depreciation for TNSPs. The AER has proposed to remove the reference to actual depreciation from chapter 6A to provide itself with discretion to adopt either forecast or actual depreciation for TNSPs.

4.3.1 The problem identified by the AER

The actual depreciation approach has been consistently applied by the AER for regulation of TNSPs and DNSPs to strengthen the capital expenditure incentive framework. This is because application of actual depreciation increases incentives for network businesses to incur efficiencies in capital expenditure.

Under the actual depreciation approach, if business underspends or overspends the expenditure allowance, the depreciation adjustment to the capital base will be recalculated to reflect the difference between actual and forecast capital expenditure. In a case in which business spends less than it was allowed by the regulator, less depreciation will be removed from the capital base than the funds that were recovered during the regulatory period. In a case of exceeding regulatory allowance the reverse is true and the business will incur a symmetrical loss. On the other hand, the forecast depreciation has a neutral effect on the capital expenditure incentives because depreciation adjustment will be the same regardless of the actual expenditure outcome.

Therefore, choice between actual and forecast depreciation is linked to the considerations whether depreciation should form a part of capital expenditure incentive framework or not. When considering an appropriate depreciation approach, it is important to assess the factors that are likely to drive the difference between actual and forecast capital expenditure. As it was outlined by the AER in its rule change application, the use of actual depreciation is not suitable when these differences are likely to be driven by uncontrollable factors of differed investment rather than efficiency improvements. Under such circumstances forecast depreciation would be more appropriate.

4.3.2 Do the proposed rule changes appropriately balance prescription and discretion?

AEMC raised a concern during 2006 transmission review that if depreciation was excluded from capital expenditure incentive framework, then there would be misbalance between relatively low powered capital expenditure incentives and relatively high powered operating expenditure incentives, which may distort TNSP's use of inputs. This led the AEMC to increase capital expenditure incentives for electricity transmission networks by including depreciation in the incentive framework (current drafting of chapter 6A).

Considering that under certain circumstances the use of forecast depreciation is preferable, there is a scope for improving the depreciation provisions of current transmission rules by giving the AER discretion to adopt either actual or forecast depreciation for electricity transmission networks. In addition, there is no evidence from operation of gas businesses, where forecast depreciation is typically adopted, that exclusion of depreciation from incentive framework leads to inefficient substitution of operating inputs in favour of capital inputs.

4.3.3 Could the AER's objectives be achieved through existing discretions?

Current rules preclude the AER from adopting forecast depreciation for electricity transmission networks.

4.3.4 Are there more preferable solutions?

The proposed Rule Change intends to provide the AER with the discretion to adopt either actual or forecast depreciation for rolling forward the regulatory asset base for TNSPs, making chapter 6A consistent with chapter 6 that applies to DNSPs. There seems to be no compelling need for divergent approaches between electricity distribution and transmission. In ENA's view there ought to be a capacity to tailor the strength of incentives in a particular price review context, rather than on a sector-wide basis. In this regard it is recommended to adopt the provision S6A.2.1 (f) (5) and 6A.6.3 (b) (3) as drafted by the AER.

4.4 Introduction of new incentive schemes

The AER proposed amendments to Chapter 6 and Chapter 6A to allow it to introduce new efficiency schemes subject to specified principles. The amendments are also proposed to Chapter 6A in relation to the requirement that the AER must develop efficiency benefit sharing scheme (EBSS) and service target performance incentive scheme (STPIS) to align it with the arrangements that currently apply under Chapter 6 where application of any given scheme is optional.

4.4.1 The problem identified by the AER

The AER proposes that it should be provided with discretion to introduce new incentive schemes under the NER. Under the existing rules the AER cannot develop and implement incentives schemes other than those specified in relevant provisions of NER. In order to introduce a new incentive scheme the AER would need to initiate a rule change and a formal rule change process will need to be conducted. In its rule change application the AER expressed a view that such regulatory arrangements are not cost and time effective, in particular, considering constantly evolving nature of regulatory practice.

The ENA does not agree that there is a problem with the existing regulatory arrangements in relation to introduction of new incentive schemes. The clear advantage of the formal rule change process is that the introduction of any new incentive scheme would be tested against National Electricity Law objectives as well as undergo public scrutiny, unlike the AER's proposed arrangements. It is considered that rule changes proposed by the AER will not achieve the identified objective in a context of current design of regulatory framework unless they are bounded by sufficient guidance in the rules. Rather, by opening a significant area for what might be regarded as quasi-rule making activities by the AER, the rule change application appears to consider that the deliberate boundary established by existing policy determinations by the MCE is central to a claimed problem in regime design.

4.4.2 Do the proposed rule changes appropriately balance prescription and discretion?

The existing regulatory regime is designed to ensure stability and predictability of regulatory outcomes by providing prescription for some elements of regulatory framework and retaining guided discretion where it is required. The proposed rule change represents a departure from the current market governance and policy design by opening up a significant gap between the level of guidance and discretion applicable to the AER in designing and implementing different incentive schemes.

It is understood that the rules should give the AER some flexibility in order to allow regulatory practice to evolve; however, it is important to recognise that where the rules give the AER discretion they also should specify criteria as to how the AER should apply this discretion. In ENA's view, the AER's proposed rule changes are not consistent with good regulatory practice because they will impose significant uncertainty around the scope of future potential incentive schemes, with no significant offsetting benefits being identified.

4.4.3 Could the AER's objectives be achieved through existing discretions?

The AER currently has the power to introduce operating expenditure incentive schemes and capital expenditure incentive scheme under Chapter 6. The AER have not previously exercised its power to introduce a capital expenditure incentive scheme. Under Chapter 6A, the AER only has the power to develop an incentive scheme for operating expenditure. There are no equivalent provisions allowing the AER to introduce a capital expenditure incentive scheme for TNSPs.

The AER can not introduce any other incentive schemes under the NER, which ENA considers to be an appropriate regulatory design.

4.4.4 Are there more preferable solutions?

The ENA considers that introduction of any new incentive scheme should be conducted in a formal rule change process, consistent with current regulatory design principles. The AER already has power to introduce capital and operating expenditure incentive schemes under chapter 6. It is recommended to extend Chapter 6 provisions that permit the AER to develop incentive scheme for both operating and capital expenditure to Chapter 6A.

The ENA further notes that giving the AER broad discretion to introduce new incentive schemes under the NER is undesirable. However, in a case in which such discretion may be provided to the AER, improved guidance will be required to ensure that the development of incentive schemes take into account such issues as consistency with national access and pricing principles and revenue impact on regulatory risk.

The AER proposal to amend the Chapter 6A requirement that the AER must develop EBSS and STPIS to align it with the arrangements that currently apply under chapter 6 where application of any given scheme is optional is supported in principle.

4.5 Treatment of shared assets

4.5.1 The problem identified by the AER

The AER considers that current rules do not allow making a revenue adjustment where the standard control assets are used to earn non-regulated revenue, precluding consumers from sharing the benefits with DNSPs. The use of shared assets for the provision of unregulated services has been relatively immaterial to date, however it is likely to change a view of recent and expected NBN activities.

The ENA does agree that the rules should recognise that the assets included in the regulatory asset base can be used in provision of services other than standard control services. However, the ENA considers that the AER's proposed changes are not warranted. Rather, the desired policy goal can be achieved by introducing modest changes to existing NER provisions without the addition of prescription and, thus, minimise the impact of the changes on regulatory risk.

4.5.2 Do the proposed rule changes appropriately balance prescription and discretion?

The ENA considers that the AER proposed rule changes do not provide a right balance between discretion and prescription.

The proposed rules are considered to be too prescriptive and will not deal with the identified issue appropriately. In particular, the proposed rules will not provide required flexibility to recognise jurisdictional differences that currently exist due to the fact that shared assets have historically been treated differently by the DNSPs and their State and Territory regulators. ENA is also concerned about writing into the rules a methodology that has not been tested in practice and can arguably expose DNSPs to greater regulatory risk as well as discourage DNSPs to invest in non-regulated activities.

4.5.3 Could the AER's objectives be achieved through existing discretions?

The ENA agrees that the AER can not achieve desirable outcomes under the existing rules. While the cost allocation method (CAM) can be applied to non-distribution services, it does not resolve an issue in relation to the assets included in the regulatory asset base.

In this regard the ENA considers that there is scope for addressing this issue through this rule change process. However, the ENA considers that the AER proposal in relation to shared assets will not promote an efficient outcome for DNSPs and there is an alternative approach that can better achieve an identified objective.

4.5.5 Are there more preferable solutions?

The ENA considers that the issue in relation to treatment of shared assets can be better addressed by allowing the regulatory asset base to be used for services other than standard control. To implement this change the amendment to the clause 6.5.1 (a) will be required. The appropriate sharing method can be developed at the time of individual regulatory determinations. The current NER provision (Clause 6.8.1 (b) (5)) already allows the AER to consult on issues that it considers appropriate at the framework and approach stage.

The ENA emphasises that there are societal benefits associated with the advancement of unregulated services that share regulated assets, and as such businesses should be allowed to efficiently grow unregulated activities without the imposition of excessive regulatory oversight mechanisms. In addition, the better utilisation of regulated assets results in savings over time for electricity customers, which

enhances the NEO. The ENA considers that, if any form of sharing mechanism is to be applied to DNSPs, then the following principles must apply:

- 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.

- 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.

In addition, the ENA considers that existing operational differences in jurisdictions should be recognised through appropriate transitional arrangements to ensure that existing contractual arrangements are managed appropriately.

4.6 Determination of rate of return

This section of the submission addresses those AER rule change proposals that concern the framework for determining the rate of return to be applied in electricity network and gas pipeline price determinations under the NER and NGR. The AER proposals in respect of the NER and NGR are premised on similar contentions and this submission addresses the questions set out by the AEMC in relation to them both.

This section also addresses the rule change proposed by the EURCC. This section is similarly structured by reference to the AEMC's themes.

The attached Joint Report – *Assessment of AER's Proposed WACC Framework* (Attachment A) also provides a more detailed examination of the rule proposal as submitted.

4.6.1 The problem identified by the AER

The AER's reasoning for changing the current WACC frameworks involves three main themes:

(a) *The need for convergence* – the AER contends that the three WACC frameworks applying to DNSPs, TNSPs and gas pipelines should be converged to a single framework. The AER argues that the WACC is largely independent of business/industry specific considerations[22] and that there will be reduced administrative costs and increased certainty through codifying the parameters to be applied to all service providers.[23] The AER states that an unintended consequence of having different WACC frameworks is that they could produce different benchmark parameters (in particular for the market risk premium (or MRP) when the risks of investment reflected in these parameters should be the same across all regulated energy networks.[24]

(b) *The desirability of the Chapter 6A WACC framework* – the AER claims that convergence to the framework currently applying to electricity transmission and set out at Chapter 6A of the NER is desirable. It is claimed that under the Chapter 6 (electricity distribution) and gas frameworks, DNSPs and gas pipelines, as well as the AER are in continual 'WACC review' mode, since there is scope to challenge parameter values at every price reset. The AER says that the incentives for DNSPs to challenge AER determinations of WACC parameters has resulted in Tribunal merit reviews involving a "spurious" level of precision. Additionally, it is claimed that Chapter 6 and the NGR provide scope for 'cherry-picking' of those components NSPs consider unfavourable, detracting from AER's ability to consider the overall rate of return.

(c) *Change to the DRP definition in the NER* – the AER contends that the NER is overly prescriptive in defining the DRP because it requires the use of Australian benchmark corporate bond rates with a BBB+ credit rating and a maturity equal to that used for the risk free rate.

Separately, the EURCC seeks to change the definition of the DRP so that it will more closely reflect the 'actual costs' of debt for DNSPs and TNSPs, with this to be achieved by means of a trailing five year average benchmark for privately-owned NSPs, and by using the outturn cost of debt in the prior year for government-owned NSPs. The EURCC identifies a number of concerns with the rule applying to the DRP under Chapters 6 and 6A of the NER, but states that its principal motivation for change is its contention that NSPs are earning excessive profits from the return on debt component of the WACC.

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[22] AER*, Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules, September* 2011, p 67.

[23] AER, *Economic regulation of gas distribution and transmission services: AER's proposed changes to the National Gas Rules,* September 2011, p 3.

[24] AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules*, September 2011, p 67.

4.6.1.1 Analysis of the validity or extent of the problem

The need for convergence

The ENA neither accepts that convergence should be pursued for its own sake nor that a number of the contentions put forward by the AER can properly be interpreted as being potential benefits of convergence. Rather, by focusing the debate on whether a five yearly review process without any opportunity for departures from it is preferable to arrangements that do provide for departures in defined circumstances, the AER risks losing sight of the fundamental requirements of the WACC determination process. The AER is required to make a decision on the rate of return to be applied for each NSP that is consistent with both the National Electricity Objective and the Revenue and Pricing Principles at the time it is made. If the five yearly SoCC process serves in any way to distort that requirement, then its validity must be questioned.

Consistent with this fundamental requirement, the ENA believes in particular that:

- some of the considerations cited by the AER as being advantages of having a single WACC framework and associated five yearly review process are overstated, particularly since only two of the WACC parameters are pure market values (MRP and Risk Free Rate) that can be measured independently of the characteristics of an energy network service provider;

- most parameters are business/industry-specific values, for which there may be good reason to observe differences, particularly between electricity and gas businesses;

- further, within the gas pipeline sector, there are likely to be significant differences between typical gas distribution network services, and particular gas transmission services, which often face very different end-market (and so revenue outlook) characteristics; and

- the AER's assertion that WACC parameters are slow to evolve and so can be settled for periods as long as five years at a time is completely inconsistent with the experience of the past five or so years, and the effects the global financial crisis has had on both financial markets and the cost of capital.

Notwithstanding the AER's overstatement of the case for convergence, the ENA accepts that there are likely to be administrative and resource allocation efficiencies if the AER were to have suitably designed powers and responsibilities to conduct a periodic review of the values and methodologies for determining the rate of return. However, the extent to which significant rule changes are required to facilitate this is a quite different question: the AER already undertakes a five yearly review process – as it is required to do so under the NER – and has generally sought to apply the findings of that review in gas pipeline decisions, even though the NGR make no provision for this.

The ENA believes that the question of whether or not there should be a degree of convergence to a single WACC framework is in many ways beside the point. The most important lessons of the last five years is that, if the process of the AER conducting a periodic determination of values or methodologies is to continue, the application of those values or methodologies must not occur without being subject to a 'safety valve' – that is, the potential to depart from presumptive values or methodologies where there is persuasive evidence to do so. Critically, the potential for such departures also establishes an AER decision that is subject to merits review, a process that has itself been an important safety valve for correcting AER errors and resolving otherwise intractable controversies.

The experience of the past six years has proven that a framework that does not have a safety valve (i.e. the Chapter 6A framework) has serious deficiencies and is simply not a suitable model on which to converge. Although the principal purpose of the Chapter 6A rate of return framework was to provide certainty to investors in relation to rate of return decisions and to instil a degree of inertia into the values

and methods adopted, it is important to recognise that these objectives were established in the context of a sustained period of benign financial market conditions. In practice, the experience of the past five years has demonstrated that some form of 'safety valve' is critical to ensure the robustness of the WACC process in the face of challenging financial market circumstances, as well as for addressing material errors on the part of the AER.

The AER's own actions underline the problems with the five yearly 'lock-in' of WACC parameters as currently occurs under Chapter 6A. In forthcoming transmission determinations the AER will be required to apply:

- a market risk premium value that the AER appears to consider no longer reflects prevailing market conditions;[25] and

- a gamma value that has been found to be erroneous and which the AER concedes lacks a proper evidentiary basis (see Box 2 below).

These two 'quirks' of the existing WACC process demonstrate why the Chapter 6A framework, which locks in parameter values with no safety valve, should absolutely not be adopted as a convergence point. It is clearly contrary to the National Electricity Objective and the Revenue and Pricing Principles for the regulator to be forced to adopt values or methodologies that are known to be erroneous or otherwise not reflective of prevailing market conditions.

By way of constructive engagement on the question as to how the existing WACC frameworks might be reformed, the ENA has identified a number of principles or design features that its members believe warrant further consideration for potential development into an alternative single, cohesive framework for determining the WACC. The essential elements of that framework are:

- the imperative for some form of 'safety valve' to address periods of financial market upheaval that mean long term values simply do not reflect the prevailing conditions on the market for funds;

- the need for a merits review mechanism that allows errors to be identified and addressed as soon as they become known, rather than being locked-in for up to five years; and

- the need to take account of potentially very different risk characteristics as between gas and electricity service providers, as well as between similar businesses facing different market circumstances (gas transmission pipelines, for instance).

This alternative framework is set out in sub-section 4.6.1.4

The desirability of the Chapter 6A WACC framework

AER's criticisms of Chapter 6 framework misplaced

Contrary to the AER's assertions, DNSPs and the AER have not been in "continual WACC review mode" and there have been no spurious challenges to parameters established in the 2009 WACC review. In eight price reviews conducted since the 2009 SoRI, only two parameters dealt with in the SoRI have been subject to any form of review. These are:

[25] Notwithstanding that in its Statement of Regulatory Intent the AER raised the MRP from 6 to 6.5 per cent on account of the GFC, after just two and a half years of the SoRI's five year term the AER is now proposing to move the MRP back to 6 per cent, where (under the NGR) it has the discretion to do so (AER, *Final decision: APT Allgas Access arrangement proposal for the Qld gas network 1 July 2011 – 30 June 2016*, June 2011, p 35).

- Gamma, which was ultimately subject to review by the Tribunal where material errors were found in the AER's 2009 SoRI (Box 2). The fact that these errors could be corrected subsequent to a WACC review demonstrates the advantages of the Chapter 6 framework. Likewise, the fact that the AER must continue to apply the WACC review value for gamma that has been shown to be in error as part of future transmission determinations is a serious deficiency in the Chapter 6A framework; and

- Market risk premium, where some DNSPs proposed a higher value in light of new analysis as to the impact of the GFC that was not considered in the SoRI. The AER rejected this new analysis and all subsequent DNSP proposals have adopted the SORI value of 6.5%.[26]

The ENA notes that there have also been significant challenges to the AER's determination of the debt risk premium. However, these challenges have not related to the benchmark credit rating or maturity established in the 2009 SoRI, but rather to the AER's case-by-case determination of the benchmark bond yield. These challenges to the AER's application of the NER provisions in relation to the debt risk premium (or, in the case of gas pipelines, to the AER's preferred approach to the same parameter under the much less prescriptive NGRs) have applied with no less validity under the Chapter 6A framework. It follows that any perceived problems associated with these challenges would not be resolved by reverting to a more fully hard wired regime in the style of Chapter 6A. Issues associated with the definition of the debt risk premium are discussed further below.

The AER has not presented any evidence of a "cherry picking" problem under the Chapter 6 framework. To the extent that WACC parameters are inter-linked, evidence for a change in one linked parameter must also be persuasive evidence for the change in the other linked parameter. As a matter of principle, the AER does therefore have the ability to make offsetting adjustments to other parameters as necessary under the current Chapter 6 framework.

In the case of the one parameter that has been changed since the SoRI (the value for gamma), the AER has considered offsetting adjustments (in particular, the reconsideration of the measurement of a historically-based estimate for a MRP adjusted for the claimed effects of the revised gamma value) but has not ultimately pursued them. In those distribution determinations where the AER has accepted that there is persuasive evidence to depart from the value for gamma adopted in the SoRI, it could have relied on the same evidence to depart from the established value for related parameters such as the market risk premium. Alternatively, the AER could have argued before the Tribunal that an offsetting adjustment to the market risk premium should be made in the event that the Tribunal was to make a determination reducing the value for gamma.[27] The AER chose not to seek an offsetting adjustment, either as part of its distribution determinations or before the Tribunal.[28]

In the case of the NSW distribution and transmission determinations made under the transitional rules, the AER's discretion to make offsetting adjustments was more limited as certain parameter values were locked in. These determinations were made in circumstances where there was strong evidence in favour

[26] AER, *Final decision: Victorian electricity distribution network service providers distribution determination 2011–2015*, October 2010, pp 472-476.

[27] NEL, s 71O(1)(b). In a Tribunal review the AER may raise a possible outcome or effect on the reviewable regulatory decision being reviewed that the AER considers may occur as a consequence of the Tribunal making a determination setting aside or varying the reviewable regulatory decision.

[28] This may be because the effect on the market risk premium of changing gamma is at best marginal. Analysis prepared for the AER as part of its 2009 WACC review indicated that this impact is very small. Using the longest data set available (1883-2008), the impact of changing gamma from 0 to 1 is a 0.3 per cent increase in the grossed up historical estimate of the market risk premium. Changing gamma from 0.65 to 0.28 (roughly the adjustment made by the Tribunal) results in a 0.1 per cent decrease in the grossed up historical estimate of the market risk premium, from 6.1 per cent to 6.0 per cent (AER, *Final decision: Electricity transmission and distribution network service providers review of weighted average cost of capital parameters*, May 2009, p 209).

of making offsetting adjustments, but such adjustments were prevented by the rigidity of the transitional rules (a rigidity that still exists in Chapter 6A but not Chapter 6).

Given that opportunities clearly exist for the AER to make offsetting adjustments under the Chapter 6 framework, there is no basis for its claim of cherry picking. To the extent that there are interrelationships between various parameters, the risk of offsetting adjustments being made by the AER causes NSPs to think carefully before challenging any aspect of the WACC. The fact that the AER has chosen not to seek offsetting adjustments suggests that the interrelationships between parameters implied by the AER's contention are mostly insignificant, at least in respect of parameters subject to review thus far.

Box 1: NSW distribution and transmission determinations

The distribution determinations for EnergyAustralia, Integral and Country Energy and the transmission determinations for TransGrid and Transend were made in May 2009 at the height of the GFC. At the time there was a substantial and rapid drop in the risk free rate associated with a flight to safety, and evidence of a significant increase in the market risk premium. However, under the transitional rules applying to these determinations the market risk premium was locked-in, as it is currently under Chapter 6A. Since the AER could only adjust the risk-free rate and not the market risk premium, the end result was a decision by the AER that involved a significant reduction in the allowed return on equity, at a time when the market evidence was that the cost of equity had in fact risen substantially.

This decision was subject to review by the Tribunal, where it was noted that an adjustment to the market risk premium was not permitted under the rules (*Application by EnergyAustralia* [2009] ACompT 8, at [112]-[113]). The Tribunal ultimately decided to use a different averaging period for the risk free rate, rather than adjusting the market risk premium.

AER's criticisms of National Gas Rules framework unfounded

The AER's assertions of "continual WACC review" and "cherry picking" are similarly unfounded in respect of gas businesses.

Whilst there has been a greater degree of challenge on WACC parameters under the NGR, this has largely reflected gas businesses seeking to have differences between electricity and gas businesses reflected in particular parameter values (particularly the equity beta or, more widely, the cost of equity). Such differences were not explicitly considered in the 2009 SoRI, and therefore businesses have asked the AER to consider this as part of individual price reviews.

Although not subject to any presumption or constraint as to the adoption of the SoRI values or methodologies, the AER has nevertheless chosen to approach gas pipeline decisions by applying the outcomes of its periodic review of WACC parameters undertaken for electricity NSPs. Notwithstanding, as in electricity, there have been challenges to the AER's application of SoRI parameters as a result of changing market conditions (e.g. market developments potentially affecting the market risk premium) and the need to correct for errors in the SoRI (e.g. gamma). It is worth noting in this respect that the AER has itself sought to depart from parameters values adopted in the SoRI as part of revenue determinations under the NGR, where it considers that the SoRI value no longer reflects prevailing market conditions.[29]

[29] The AER is now proposing to move the MRP back to 6 per cent, where (under the NGR) it has the discretion to do so (AER, *Final decision: APT Allgas Access arrangement proposal for the Qld gas network 1 July 2011 – 30 June 2016*, June 2011, p 35).

Change to the DRP definition in the NER

(a) Issues raised by the AER

The AER identifies several issues with the definition of the DRP in clauses 6.5.2(e) and 6A.6.2(e) of the NER. The key issues are:[30]

- the DRP definition is too restrictive in its reference to a benchmark bond with a particular term to maturity, credit rating and domicile of the issuer;
- ambiguity in the definition of the benchmark, and in particular uncertainty as to what other factors are relevant to determining the benchmark set;
- inflexibility in dealing with changing market conditions; and
- apparent disparities between the benchmark cost of debt and the actual cost of debt for NSPs.

The ENA agrees that the NER definition of the DRP could be improved. As noted by the AER and EURCC, the restrictive language of this definition and ambiguity as to its application have been a source of significant dispute between the AER and NSPs in recent years. These difficulties with the NER definition of the DRP have been accentuated by developments in financial markets during and following the global financial crisis.

However, the ENA notes that not all elements of the DRP definition are codified in the NER as the AER submissions would suggest. The benchmark maturity and credit rating were established by the AER in its 2009 WACC review and do not form part of the NER. Had there been persuasive evidence to suggest that either the benchmark maturity or credit rating was no longer appropriate in light of financial market developments, under the provisions applying at Chapter 6 either DNSPs or the AER could have moved to adopt a different benchmark.[31] NSPs chose not to do this since they considered that the existing benchmark remained appropriate, and it would appear that the AER took the same view. Nonetheless, it is important to note that this flexibility exists in Chapter 6, and for the reasons set out elsewhere in this section, the ENA considers that the same flexibility should apply under Chapter 6A.

The ENA does not agree that the apparent short-term divergence between the actual and benchmark cost of debt evidences any deficiency in the NER. The NER require a *forward-looking* estimate of the return on capital commensurate with prevailing conditions in the market for funds, consistent with the broader policy intent for regulated revenue allowances to reflect forward-looking efficient costs.[32] There is no reason to expect that a forward-looking estimate of the cost of debt would necessarily align with the historic cost of debt for NSPs. The forward-looking cost of debt may be higher or lower than the historic cost of debt at any point in time depending on current market conditions and how these relate to historic conditions.

As Figure 11 (overleaf) demonstrates, debt spreads have varied considerably over the past five years as a result of movements in financial markets. This implies that the forward-looking cost of debt at any particular point in time is likely to differ from the historic cost of debt for businesses. In current market conditions it is to be expected that the forward-looking cost of debt will be above the historic cost of debt since the historic cost of debt is likely to include some borrowings at lower (pre-GFC) levels. It can also be expected that this relationship between the historic and forward-looking cost of debt will change in

[30] AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules*, September 2011, p 77.

[31] NER, clause 6.5.4(g).

[32] NER, clause 6.5.4(e), 6A.6.2(j).

future as the forward-looking cost of debt recedes towards pre-GFC levels and current borrowing costs become embedded in businesses historic cost of debt.

Figure 11: Historic debt risk premia (spreads on 7 year debt over CGS)

Source: VAA, *Comments on market risk premium in draft decision by AER for Envestra*, February 2011,p. 2.

The fact that there is a difference between historic and forward-looking borrowing costs does not itself lend weight to the suggestion that the framework is somehow inconsistent with the NEO or that a revised framework would advance the NEO. Rather, the current framework simply reflects a decision (reflected in the current NER drafting) that long term interests of consumers are best served by establishing a rate of return that is based on benchmark financing costs that reflect *prevailing* conditions in the market for funds. To the extent that any rule change proposal that brings the allowed cost of debt into line with NSPs' actual or historic costs of capital is to be given consideration, there is a real risk of inconsistencies developing within the wider, integrated WACC framework set out in the NER. Unless very careful attention is given to addressing such potential inconsistencies, both within the WACC framework itself as well as with the forward looking concepts that underpin the Revenue and Pricing Principles, there is a real risk that the AER's proposal will be inconsistent with the NEO. The nature and extent of this risk has of course been heightened by financial market conditions experienced over the past five years..

Notwithstanding, the ENA acknowledges that some aspects of the current drafting of the NER have created difficulties for the AER and NSPs in determining an appropriate forward-looking cost of debt. However for the reasons below, the ENA does not agree with the AER's proposed solution to these problems.

(b) Issues raised by the EURCC

The problem identified by the EUC combines three separable issues:

- the issue of whether or not the cost of debt should be set by reference to the current cost of new debt (ie, a "spot rate") or by reference to an historical average (ie, intended to reflect the cost of embedded debt);

- the issue of whether the benchmark cost of debt has been appropriately specified, ie, whether or not Australian-dollar denominated corporate debt of the same maturity as the risk free rate is an appropriate benchmark; and

- whether the cost of debt for government-owned businesses should be set by reference to private sector borrowing costs, as implied by the present benchmark principle.

On the use of the embedded cost of debt as distinct from the spot rate, the EURCC proposal does not sit comfortably with the wider, integrated WACC framework, including the principle articulated in both the NGR and NER that "the rate of return is that commensurate with prevailing conditions in the market for funds". Unless there is a preparedness to step back and reconsider all aspects of this framework, there is real risk that tinkering with fundamental properties of one element alone will not be consistent with the NEO.

The EURCC and its consultants Cambridge Economic Policy Associates (**CEPA**) fail to recognise the important distinction between the current cost of debt and embedded debt costs. As a result, the EURCC mischaracterises the issue of current borrowing rates being above historical averages as a problem of "excessive profits". As noted above in relation to the AER proposal, the fact that there is this difference between historic and forward-looking borrowing costs does not point to any deficiency in the NER.

Further, to the extent the EURCC's contention has some validity, its conclusion could not be sustained over time. If the EURCC analysis was undertaken during a period of sustained falls in the DRP, it would produce a conclusion that the regulated cost of debt was below the actual cost of debt of a NSP.

As to whether the cost of debt benchmark has been appropriately specified, the EURCC appears to contend that the term to maturity should be lower (5 years rather than 10) and the credit rating band broader (broad A and BBB). However very little evidence is provided for this contention and the evidence that is provided does not support it:

- On term to maturity, CEPA notes that the average remaining term on debt issued by regulated utilities is less than five years, which it suggests should justify a shortening of the benchmark term.[33] However, what CEPA fails to recognise is that average term *at issue* of this debt is around 10.5 years and the median term at issue is 10 years.[34] Once again, this reflects CEPA's failure to recognise the important distinction between a company's embedded debt profile and the prevailing (current) cost of debt; and

- On credit rating, CEPA suggests that broadening the benchmark would have the benefit of increasing the amount of information that may be considered in determining the cost of debt.[35] Whilst it may be beneficial to consider a wider range of credit ratings as a means of obtaining a better perspective on the value to be attributed to the benchmark rating, it is quite a different matter to allow the benchmark itself to be expressed as a range. Internal consistency across all elements of the WACC calculation (gearing, equity beta, etc), requires there to be a clear specification of the benchmark that is to be applied. The AER and the Tribunal have already recognised that bonds with credit ratings that are different from the prescribed benchmark may be taken into account, albeit with lesser weight.[36] However, it does not follow that it makes sense to embrace flexibility in the benchmark itself.

Importantly, both these considerations were addressed in detail by the AER in developing its SoRI in 2009, and the EURCC proposal or similar options were not adopted then. Accordingly, for such a significant change in the benchmark for determining the cost of debt to be considered now, there would

[33] Cambridge Economic Policy Associates, *Estimating the Debt Margin*, October 2011, pp 15-18.

[34] Based on the 31 debt issues listed in Annex 1 of the CEPA report.

[35] Cambridge Economic Policy Associates, *Estimating the Debt Margin*, October 2011, p 11.

[36] *Application by Jemena Gas Networks (NSW) Ltd (No 5)* [2011] ACompT 10.

need to be substantial and persuasive new evidence. However such evidence is absent from the EURCC proposal.

The EURCC concern in relation to the cost of debt for Government owned businesses is misplaced in a number of respects. At the most fundamental level, the EURCC also does not provide any reason as to why electricity prices should differ across jurisdictions simply as a result of the ownership of the relevant assets, nor does it recognise the adverse consequences for resource allocation that may result. The EURCC's proposal would give rise to circumstances where network businesses operating in different geographic regions set prices that were differentiated by ownership rather than by reference to the underlying economic costs of providing those services. It cannot be consistent with either the National Electricity Objective or the Revenue and Pricing Principles that network prices should be set by reference to the ability (obtained through their taxing powers) of a particular class of owners to subsidise the provision of electricity network services. Such circumstances would provide an artificial incentive for over-investment by customers in the lower priced regions, along with under-investment in demand side initiatives, undermining the principles of allocative and dynamic efficiency. Put simply, the location of energy intensive development in jurisdictions where government ownership remains and so energy prices are artificially reduced cannot be justified. Consistent with an emphasis on industry- and economy-wide efficiency, the principle of competitive neutrality for Government-owned and private businesses has been a key feature of economic policy over the past two decades, since the publication of the National Competition Policy Review by the Independent Committee of Inquiry in August 1993 (**Hilmer Report**). The Hilmer Report cited two key reasons for promoting competitive neutrality:[37]

- differences in regulatory and other requirements imposed on firms competing in the one market may distort competition and hence undermine market efficiency; and

- differences of these kinds may also be seen as inequitable, particularly where they are not clearly supported on public interest grounds.

In April 1995, the *Competition Principles Agreement* was signed by Commonwealth, State and Territory Governments including a commitment to implement the Hilmer Report recommendations for competitive neutrality. Following on from this, the Commonwealth Government (as well as State and Territory Governments) published a Competitive Neutrality Policy Statement setting out specific steps to implementation of the competitive neutrality principle. These included:[38]

- *Debt neutrality* – noting that markets confer borrowing cost advantages on government owned entities as a result of explicit government guarantees and perceptions of implicit government support, the Commonwealth Government committed to implementing debt neutrality by subjecting identified organisations to similar borrowing costs to those faced by private sector businesses; and

- *Rate of return requirements* – the Government decided that all Commonwealth organisations identified as 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.

The principles that were set out in the Hilmer Report and implemented through subsequent Government policy do not just apply to Government-owned businesses operating in competitive markets. They equally apply in infrastructure sectors where the ultimate aim of regulation is to mimic a competitive market in terms of price and other outcomes. Maintaining the distortions resulting from Government ownership that

[37] Frederick G Hilmer, Mark Rayner, Geoffrey Taperell, *National Competition Policy: Report by the Independent Committee of Inquiry* (Australian Government Publishing Service , 1993), p 294.

[38] Treasury, *Commonwealth Competitive Neutrality Policy Statement*, August 1996, p 17.

were identified by the Hilmer Report would result in outcomes that do not reflect competitive market outcomes.

4.6.2 Do the proposed rule changes appropriately balance prescription and discretion?

AER proposal for convergence of WACC frameworks

The AER's proposal for convergence to a WACC framework similar to the current Chapter 6A framework does not strike the right balance between prescription and discretion. This framework would provide the AER with wide discretion at each five-yearly WACC review and no discretion at each price reset. The ENA submits that while the AER should be afforded some discretion at the WACC review, this should be subject to a 'safety valve' – that is, the AER (and NSPs) should be able to depart from values or methodologies established in a WACC review where there is persuasive evidence to do so.

Experience has shown that the absence of a "safety valve" in the Chapter 6A framework is a serious deficiency. Since the AER has no discretion to depart from findings in a WACC review, it is unable to deal with:

- changing market circumstances, such as those surrounding the NSW distribution and transmission determinations (Box 1); and

- demonstrable errors in a WACC review, such as those that have now been conceded by the AER in respect of gamma (Box 2).

Box 2: review of gamma value adopted in the 2009 WACC review

As part of its May 2009 statement of revised WACC parameters for transmission and statement of regulatory intent for distribution, the AER established a value for gamma of 0.65. This was calculated as the product of a credit distribution rate of 100 per cent and a value for distributed credits (theta) of 0.65.

Following the 2009 WACC review, the AER applied a gamma value of 0.65 in its May 2010 distribution determinations for Queensland (Energex and Ergon) and South Australia (ETSA Utilities). The Queensland and South Australian DNSPs had argued for a lower value for gamma and had presented evidence which indicated that both the distribution rate and theta were significantly lower than had been estimated by the AER in its 2009 WACC review. Some of this evidence had been before the AER in the WACC review, but some was new. Overall, the AER considered that there was not persuasive evidence to depart from its WACC review value and maintained a gamma of 0.65.

ETSA Utilities, Energex and Ergon all sought review of the AER decision in respect of gamma before the Australian Competition Tribunal. The DNSPs argued that the AER erred in determining that there was not persuasive evidence to depart from the WACC review value for gamma.

Before the Tribunal, the AER conceded that there was no empirical data capable of supporting a distribution rate higher than 70 per cent. The Tribunal accepted this concession on the distribution rate and found further error in the AER's determination of theta. The Tribunal ultimately determined that the correct value for gamma is 0.25, being the product of a distribution rate of 70 per cent and a value for theta of 0.35.

In more recent reviews under Chapter 6 of the NER and under the NGR, the AER has applied gamma values below 0.65, recognising the several errors found by the Tribunal in the 2009 WACC review determination. However under Chapter 6A of the NER, the AER is still bound to apply a gamma value of 0.65 in forthcoming transmission determinations.

Importantly, now that the value of gamma and its constituent elements has been settled by the Tribunal, there is no reason to expect that this parameter will be subject to further instances of merits review until such time as new perspectives or market evidence become available to support a case for change, in combination with any unpreparedness on the part of the AER to embrace such evidence.

The AER contends that the more rigid Chapter 6A framework is superior and that flexibility was only provided for in Chapter 6 in order to allow for convergence from the different state-based regimes that had previously applied to DNSPs. The AER argues that this flexibility can now be done away with since convergence has now been achieved, noting "as a result of the AER's 2009 WACC review decision, the MCE's rationale for different WACC frameworks falls away".[39] However, the AER fails to recognise that there were other reasons for the MCE preferring flexibility including:[40]

- the benefits of linking the WACC to the regulatory determination so that the AER's consideration is subject to merits review; and

[39] AER Rule Change Proposal, p 67.

[40] MCE SCO, *Response to stakeholder comments on the Exposure Draft of the National Electricity Rules for distribution revenue and pricing*, pp 16-17.

- allowing a 'safety valve' in the application of the WACC to reflect unanticipated, crisis-like developments in financial markets.

The ENA submits that, for these reasons, there must be discretion to depart from values or methodologies set in a WACC review in order to provide a safety valve on WACC determinations. In addition the AER should be provided with guidance within the Rules as to how and on what basis it conducts its determination of WACC parameters. The possible form of such guidance is discussed further below.

Change to the DRP definition in the NER

AER proposal

The ENA submits that the AER's proposed rule change does not appropriately balance prescription and discretion. The AER's approach is to remove the DRP definition from the NER entirely and to give itself complete discretion to determine a methodology or value for the DRP in a WACC review. Under the AER's proposed approach to WACC reviews any such determination could not be departed from in a subsequent revenue determination and there would be no scope for merits review (refer to Section 4 above).

While it may be appropriate for some aspects of the DRP methodology to be determined as part of a WACC review, the ENA considers that at least some guidance should be provided by the NER. In particular, the NER should clearly set out what the DRP is intended to measure and confirm that it is to be a forward-looking parameter measured using the most up-to-date information. It may also be appropriate to codify some aspects of the methodology to be used, such as the relevant credit rating and/or the use of a maturity structure that reflects a benchmark NSP.

An alternative approach which better balances prescription and discretion is discussed in Section 4.6.4.

Issues raised by the EURCC

In contrast to the AER proposal, the EURCC proposal is highly prescriptive as to the cost of debt calculation to be undertaken at each price reset.

Recent experience has shown that unduly high levels of prescription can be inappropriate since they lack the requisite 'safety valve' to deal with aberrant market conditions. By way of example, future changes in market conditions may result in illiquidity in certain bonds classes, causing difficulties in the application of the prescribed methodology.

4.6.3 Could the AER's objectives be achieved through existing discretions?

The need for convergence

The purpose that the AER is apparently seeking to achieve in terms of substantially limiting its discretion to consider departures from the SoCC at each price reset while, at the same time, shielding decisions to apply the SoRI parameters or methodologies from the potential for merits review could not be achieved through existing discretions. Consistency of the Chapter 6, Chapter 6A and gas frameworks could also not be achieved under existing discretions.

Change to the DRP definition in the NER

The ENA notes that the AER has a relatively broad discretion in setting the DRP under the NGR, which simply requires it to determine the rate of return rate on a forward-looking basis commensurate with

prevailing conditions in the market for funds and the risk involved in providing reference services.[41] It follows that there is no need to amend the NGR to address the concerns the AER has expressed in relation to lack of discretion in setting the DRP.

The AER also has more limited discretion under Chapter 6 of the NER to alter some elements of the DRP calculation methodology. The AER may depart from the credit rating level and/or maturity used to measure the risk-free and DRP if it considers that there is persuasive evidence to justify this. The AER has not sought to exercise this discretion so far, which suggests that it considers these aspects of the methodology still to be appropriate.

Whilst these existing discretions could potentially be used to achieve greater flexibility in the methodology for measuring the DRP, they could not be relied on to overcome all of the issues identified by the AER with the DRP definition in the NER. The most significant issues have arisen in relation to the requirement for the DRP to be based on the "observed Australian benchmark corporate bond rate" of particular maturity and credit rating. In respect of this requirement the AER's discretion is currently limited.

4.6.4 Are there more preferable solutions?

The need for convergence

The ENA does not accept that the AER has made a case for convergence to be pursued for its own sake or that many of the contentions put forward by the AER can properly be interpreted as being potential benefits of convergence. Rather, each of the three rate of return frameworks should be assessed on their merits, by reference to the National Electricity and Gas Objectives and the Revenue and Pricing Principles, and improvements made where these would further these objectives and principles. There is no basis for a presumption that there is only one, 'best', rate of return framework, while the potential for change for its own sake to impose significant costs in terms of investor uncertainty during the inevitable transitional period while any new framework settles down.

The ENA submits that the single most important reason for altering any of the three WACC frameworks set out in NER and NGR arises from the need to introduce a 'safety valve' mechanism to the operation of the Chapter 6A framework applying to transmission NSPs. The basic purpose of such a safety valve is to allow departures from a parameter value or methodology established by the AER in its periodic review of WACC parameters in circumstances where conditions in the market for funds have changed since the time the review took place, or where error has been found to arise. Financial market developments over the past five years, in combination with the timing and processes for establishing the WACC under the current frameworks, show clearly that a safety valve mechanism is absolutely necessary for ensuring that WACC decisions comply with the requirement for a WACC decision to be compliant with the National Electricity Objective and the Revenue and Pricing Principles at the time it is made.

The ENA believes that the simplest, most practicable means to ensure that such a safety valve applied to WACC decisions across all electricity NSPs and gas pipelines would be to amend the rules so that Chapter 6A of the NER allowed for departures to the SoRI under the same 'persuasive evidence' criteria as that applying under Chapter 6. On this approach, there is no need to amend the NGR, since the model applying in gas already provides for the most up-to-date and best information to be taken into account.

[41] In practice however, the AER has generally adopted the NER framework in determining the DRP for gas businesses, rather than using the discretion it has under the NGR (For example: AER, *APT Allgas Access Arrangement Proposal for the Qld Gas Network 1 July 2011 – 30 June 2016: Final Decision*, June 2011, p 190).

The ENA recognises that a simple change along these lines would mean that the current three WACC frameworks had converged to two, ie, applying on the one hand to electricity transmission and distribution while, on the other, gas pipelines would continue to operate under their existing framework. Such a change would have the merit of preserving the AER's five yearly WACC review process for electricity NSPs, while allowing the experiment of an alternative, much less prescriptive framework (which, to date, has led to little or no difference in terms of substantive outcomes) to continue to operate. The only other change to the NER that may be desirable is to refine the provisions applying to the DRP by means of a rule change along the lines indicated further below.

To the extent that the AEMC is minded to contemplate convergence to a single framework WACC framework applying to electricity and gas pipeline determinations, the ENA emphasises that this would be a substantial undertaking requiring careful analysis of the basic differences between the existing electricity and gas arrangements, and the interactions between individual elements of any proposal.

In the relatively limited time period that has been available for the ENA to identify and evaluate the various considerations, it has identified a range of basic considerations that would need to be taken into account in designing a single, cohesive framework for determining the WACC. These considerations include:

- the need for a NEO-compliant WACC framework to adopt an internally consistent approach to all parameters, in line with a clear *overarching principle* that defines the rate of return to be applied, such as the "prevailing conditions in the market for funds" concept that has presently primacy status in the NGR. Although the ENA recognises that this same principle also sits within the NER and is a relevant consideration in the Statement of Cost of Capital process, its status is less clear than is the case under the NGR. This is evidenced by the fact that it is a less frequent reference point in the context of merits reviews of AER decisions, and that the rule change proposals now being put forward by both the AER and EURCC appear not to be consistent with it;
- the need to specify that the rate of return is to be determined by application of a *WACC formula* with the *CAPM model* used to estimate its cost of equity component. However, given the acknowledged weakness of the CAPM in valuing or determining the cost of equity for low beta and/or value stocks, the ENA considers one potential option is that the adoption of the CAPM model should itself be a decision that is subject to explicit confirmation after consideration of alternatives undertaken as part of the AER's proposed periodic Statement on the Cost of Capital (SoCC) This would provide a recognition both that market conditions can affect individual parameters over time, but that at times the CAPM model itself may result in outputs not consistent with prevailing market conditions;
- provision for the *AER to undertake a periodic review* (the SoCC) of the WACC parameters contained in the above formula, noting that the requirement would in fact be for the AER to undertake three distinct reviews (for transmission, distribution and gas pipelines, respectively). Although the ENA acknowledged that there would be a number of matters that were common to each, it would also need to be made clear that it would be necessary for each SoCC to address:
  - the implications of the particular risk characteristics associated with provision of the relevant services (being electricity transmission and distribution, and gas pipeline services); and
  - the potential for the risk characteristics of network service providers to vary from one business to another, such as may be the case for a gas transmission pipeline serving a major city, as opposed to serving a small number of mines;
- the need to specify *principles in respect of each WACC parameter* that must be applied by the AER in undertaking its SoCC (see below), with these principles to remain in place from one SoCC process to another, rather than being superseded by the SoCC process – as is presently the case for the risk free rate element – as well as making clear that the SoCC is itself subject to compliance with the overarching principle referred to above;

- the establishment of a presumption that *the values or methodologies of each SoCC are to be applied* by the AER in all subsequent price/revenue determinations, until such time as these are superseded by a more up-to-date SoCC; and
- the need provide for a *safety valve* to be invoked in relation to any individual AER rate of return decision, the explicit purpose of which would be to address the consequences of either *material changes in conditions in the market for funds* or *errors in the SoCC*, both of which would be subsequent to a *persuasive evidence test* along the lines of that currently operating in Chapter 6 of the NER.

By way of illustrative example only, the ENA submits that the standing principles that should apply in respect of other WACC parameters that were subject to the SoCC process could be expressed in terms that reflected the following considerations:

- the risk free rate – the relevant principle for this parameter would confirm that it should be based on a ten year maturity Commonwealth Government bond, being that consistent with the maturity used to determine the MRP, with the yield to maturity measured in a manner that best reflects the prevailing conditions in the market for funds; and
- market risk premium – the relevant principle should recognise that, notwithstanding that it may be estimated by reference to long term average returns, the MRP is at all times a forward looking concept and, during periods of unusual market conditions, emphasis should be given to estimation techniques that explicitly recognise the prevailing conditions in the market for funds.

By way of alternative to the separate assessments of these two parameters identified above, and in recognition of the principle that the risk free rate and market risk premium tend to move inversely in relation to each other, particularly in response to periods of aberrant market conditions, it may be desirable to establish a principle that enabled or required these two parameters also to be considered together, such as:

- the risk free rate and market risk premium – in combination, these two parameters must reflect the forward looking return on the market portfolio.

In addition, other WACC parameters could be expressed in terms that reflect:

- equity beta – the relevant principle for this parameter is forward looking expectations of risk for the relevant class of service provider, relative to the market portfolio (i.e. non-diversifiable risk);
- gearing – the relevant principle to be adopted for this parameter would be a benchmark established by reference to the observed gearing of network service providers, subject to those observations being consistent with the benchmark credit rating;
- credit rating levels – the relevant principle to be adopted for this parameter would be a benchmark established by reference to the observed gearing of network service providers, subject to those observations being consistent with the benchmark gearing; and
- assumed utilisation of imputation credits – the current market value to investors value of a dollar of company income tax paid by a business.

These considerations illustrate the complex range of factors raised by cost of capital estimation, and should not be regarded as exhaustive of the principles that are appropriate for such guidance. These are matters that warrant further detailed consider by AEMC and other stakeholders

Change to the DRP definition

The ENA submits that the process of establishing and specifying specific principles that were to apply in respect of each WACC parameter would also be a suitable means of shaping and identifying appropriate refinements to the DRP component of the WACC, which it accepts has proved unnecessarily restrictive in

light of market developments since the onset of the GFC. By way of example, the DRP element of a framework that reflected the above principles could be based on the following guiding considerations:

- the debt risk premium being the best estimate of current borrowing costs for an Australian borrower;
- the adoption of a benchmark maturity structure; and
- the potential specification of a BBB+ or equivalent credit rating.

However, the ENA also recognises that the EURCC rule change proposal does raise the question of whether the fundamental approach to debt risk premium should be re-thought so as to move away from the current, forward-looking estimate principle that has hitherto prevailed. The basic distinguishing property of the EURCC proposal is that it contemplates giving significant weight to the embedded or trailing cost of debt for determining this element of the WACC. A proposal along these lines is unlikely to be consistent with the current, foundational principle applying under both the NER and NGR that the rate of return must reflect the "prevailing conditions in the market for funds".

Notwithstanding that adoption of an approach to the cost of debt along the lines of that proposed by the EURCC may well require the particular specification of this principle to be reworded, the ENA is open to the AEMC's process undertaking a considered analysis of such a development. This is not to say that the ENA members necessarily support such a proposal; rather, it is of such significance that the ENA believes its potential advantages and disadvantages and their associated consequences for other elements of the WACC framework warrant proper and detailed consideration.

4.7 Regulatory decision-making process

4.7.1 Decision-making Procedures

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 extend timeframes for particularly complex or difficult pass-through applications, contingent projects and capex reopeners; and

7 Coexistence of procedural and substantive matters in the list of expenditure factors.

This section addresses each of the AEMC's themes for the above issues.

4.7.1.1 Submissions received during a determination process

The problem identified by the AER

The AER raises an issue of NSPs making substantial submissions after lodging a revised regulatory proposal on matters which should have been covered in their proposal and/or revised proposal. The AER states that this creates two problems:

- it may undermine incentives for NSPs to provide complete proposals;
- other stakeholders are unable to consider and make meaningful submissions on material submitted by the NSP after the revised proposal; and
- the AER may have insufficient time to properly consider this material.

The AER acknowledges that there are circumstances in which it is appropriate for a NSP to make a submission after lodging its revised proposal, including where there are common issues across several proposals that are being considered concurrently by the AER. In other circumstances however, the AER argues that NSPs should be precluded from making submissions after lodging their revised proposal.

It is first important to note that under the current rules, NSPs have an explicit right to make submissions on the AER's draft decision. To the extent NSPs have lodged material after their revised proposal, but on or before the date that submissions on the draft decision close that is responsive to the matters raised in the AER's draft decision, this should be not characterised as the NSPs "gaming" the regulatory process or being otherwise pernicious. This opportunity for submissions is an important element of the regulatory

process as it allows for testing of the AER's analysis and reasoning and provides an opportunity for NSPs to respond to what is put against their regulatory proposal. What many NSPs have strived to do is to lodge an "interim" submission on the draft decision at the same time as any revised proposal in order to maximise the time for third parties and the AER to review that material. However, in the event that not all material responsive to the draft decision could be finalised in the short period between the draft decision and the submission of the revised proposal (being only 30 business days after the publication of the draft decision), further responsive material has been submitted by the date that submissions on the draft decision close.

Providing opportunities for subsequent submissions does not undermine incentives for NSPs to provide complete proposals. As the AER has discretion to give less weight to information submitted late in the process, NSPs face strong incentives to submit information early in order to maximise the prospect of it being considered by the AER. The opportunity for submissions on the draft decision is to respond to reasoning and evidence relied on by the AER, which the NSP sees for the first time in the draft decision. The NSP cannot pre-empt what will be put against its proposal in the draft decision and therefore must be afforded an opportunity to make further submissions.

The ENA acknowledges that the fact that the date for submissions on the draft decision is the same for NSPs as it is for all other stakeholders may inadvertently operate to limit effective stakeholder engagement on the material that is submitted in response to the draft decision. However, the ENA submits that the opportunity for NSPs to make submissions on the AER's draft decisions should not be foreclosed for a number of reasons including:

- A NSP may not wish to (and is not required to) lodge a revised proposal, however the NSP must still be afforded the opportunity to respond to the AER's draft decision. Both as a matter of procedural fairness and to maintain the robustness of the regulatory decision-making process, NSPs must be afforded the opportunity to respond to what is put against their proposal in the AER's draft decision. The AER Rule Change Proposal would prevent the NSP from making such submissions, except to the extent that it is revising its proposal to incorporate matters raised in the draft decision. In respect of those elements of the NSP proposal that are not subject to revision (either because they are not addressed in the draft decision or because the NSP does not agree with the AER's proposed revisions), the AER proposes that NSP submissions be precluded;

- There are a range of circumstances which can arise after lodgement of a revised proposal which may create a need for further submissions by the NSP. This set of circumstances is much broader than what is contemplated in the AER Rule Change Proposal and is not sufficiently dealt with by the very limited exception to the proposed general prohibition on NSP submissions;

- Where material is submitted late and cannot be properly considered or tested by the AER and/or stakeholders, the AER has discretion as to what weight should be given to it. Where a submission is made after the time for making the submission has expired, the AER *may* consider it, but is not required to.

The AER identifies one circumstance in which submissions by an NSP after lodging a revised proposal may be justified (where common issues arise in proposals being considered concurrently), but does not acknowledge the range of other possible circumstances. A review of situations where submissions have been made by NSPs after lodgement of a revised proposal reveals that further submissions may be necessary for a range of reasons, including:

- where there is a change in circumstances or new matters arising after the revised proposal which materially affect forecasts or other aspects of the proposal – an recent example of this is the conclusion of the Victorian Bushfire Royal Commission roughly one week after the Victorian distribution businesses were due to submit their revised proposals (see Box 3).

- where a NSP has been unable to collect all evidence (including expert evidence) required to respond to the AER draft decision in time for inclusion with the revised proposal – this is particularly an issue for businesses with regulatory periods commencing in July (all electricity distribution businesses except those in Victoria), as the six week period to respond to the draft decision runs over the Christmas period, when key staff and consultants may have limited availability;[42]

- where the AER has developed a new approach or relied on new data and expert material that did not form part of the draft decision and was not the subject of a separate consultation; and

- where other stakeholders have proposed alternative approaches or introduced new evidence justifying a response from NSPs (see Box 3) – just as these stakeholders should be afforded an opportunity to comment on the NSP proposal, as a matter of procedural fairness NSPs should be able to comment on any new proposal or new material submitted by stakeholders.

The accompanying Gilbert and Tobin Report – *Assessment of proposed changes to regulatory decision making process under the National Electricity Rules* (Attachment D) includes a full review of submissions made by DNSPs subsequent to lodgement of a revised proposal in recent price reviews. This review highlights the range of circumstances in which submissions may be justified and the importance of this element of the decision-making process. In particular, Gilbert + Tobin notes the importance of exposing the AER's analysis and evidence to scrutiny by the NSP (and other stakeholders) through submissions on the draft decision, thus allowing its probative value to be properly tested, and ensuring that only the most robust analysis and evidence is relied upon in making a final determination.[43]

[42] For example in the distribution price reviews for Queensland and South Australia, the AER draft decision was published on 30 November 2009 and the NSPs' revised proposals were due on 14 January 2010.

[43] Gilbert + Tobin, *Assessment of proposed changes to the regulatory decision making process under the National Electricity Rules: Report for the Energy Networks Association*, December 2011, p 7.

Box 3: Case study – Victorian electricity price review

The recent Victorian electricity price review provides an example of several situations in which NSPs may need to submit further material after the date for submission of revised proposals. The date for submission of revised proposals by the Victorian DNSPs was 21 July 2010, with a further four weeks (to 19 August 2010) allowed for submissions on the draft decision and revised proposals.

On 31 July 2010, shortly after submission of revised proposals by the Victorian DNSPs, the Victorian Bushfire Royal Commission (**VBRC**) delivered its final report to the Governor of Victoria, who tabled it in the Victorian Parliament. The VBRC report contained a series of recommendations, some of which will have significant cost implications for Victorian electricity businesses. For example, the VBRC recommended the replacement of all single wire earth return power lines in Victoria with aerial bundled cable, underground cabling or other technology in the areas of highest bushfire risk within 10 years.

As a direct result of the VBRC recommendations, the Victorian Parliament passed the Energy and Resources Legislation Amendment Act 2010 (**ERLAA**) on 13 August 2010. The ERLAA aims to improve vegetation management around electrical lines, increase the quality and frequency of electrical line safety auditing and also increases penalties for non-compliance with the bushfire prevention requirements.

In light of the additional costs likely to arise out the increased safety obligations in the ERLAA and uncertainty around possible further legislative changes flowing from the VBRC recommendations, several Victorian DNSPs made submissions to the AER on this matter on 19 August 2011. The submissions argued that these developments gave greater weight to the DNSPs' proposals for a specific bushfire pass through event.

Also on 19 August 2011, the AER received a submission from the Energy Users Association of Australia (**EUAA**), attaching an expert report from economist Bruce Mountain on the debt risk premium. The EUAA submission and accompanying expert report argued for a new approach to the debt risk premium which differed substantially from the approaches proposed by the DNSPs and adopted by the AER in its draft decision. The DNSPs made a joint submission to the AER on 24 September 2010, responding to the EUAA submission.

Subsequently, on 27 September 2010, the AER issued a further consultation on the debt risk premium, signalling a significant departure from the approach foreshadowed in its draft decision. Submissions were made by the DNSPs and other stakeholders (including the EUAA) in response to this consultation.

The ENA acknowledges that that an opportunity exists to enable stakeholders to engage more effectively in the regulatory process, including by responding to proposals and submissions put forward by NSPs. However the problem does not lie in the ability of NSPs to make submissions to the AER in addition to their proposal and regulatory proposal. As noted above, there are a range of reasons why an NSP may need to do this, and therefore this opportunity should not be foreclosed. Rather, as will be discussed in the remainder of this section, the AER's objective of facilitating greater stakeholder participation in consultation processes would be better achieved either through greater use of existing AER discretions and/or alternative amendments to the procedure for submissions.

Do the proposed rule changes appropriately balance prescription and discretion?

Unlike many of the other rule changes proposed by the AER, the changes proposed in relation to submissions during the regulatory process seek to significantly restrict the AER's discretion. The current drafting of the NER provides that the AER *may* take into account late submissions, but is not *required* to. The AER proposes that the NER be changed such that it *must not* consider submissions or proposals that are late or otherwise do not comply with NER requirements. This highly prescriptive rule proposed by the AER is subject to a very limited exception for "typographical corrections, corrections of miscalculations and corrections of other errors that do not affect the substance of a regulatory proposal".

The ENA submits that this restriction of the AER's discretion is entirely unnecessary. The AER currently has discretion to either not consider late material or give it less weight in making a determination. This discretion is appropriate given that NSPs or other stakeholders may need to make late submissions in a range of circumstances, including those referred to in section 6.2.1 above. Depending on the circumstances of a late submission, the AER may exercise its discretion to either:

- give the submission material weight in making its determination, which the AER may do if the submission relates to a material change in circumstances, emergence of new evidence or is in response to another stakeholder submission; or

- otherwise appropriately weight the submission if it contains arguments or evidence that should have formed part of earlier submissions and which has not been fully tested through the consultation process.

The move to greater prescription as proposed by the AER will not improve the efficacy of the regulatory process and will only increase the risk of regulatory error. If the AER is prohibited from considering any late submission or a submission made strictly outside of the defined regulatory process, it will foreclose any opportunity to consider new information submitted after the revised proposal, no matter how relevant that information may have been to its decision making. In the case of the Victorian distribution price review referred to in Box 3, the AER could not have considered any of the new information submitted by the DNSPs on the outcome of the VBRC review and could not have accepted any response by the DNSPs to the EUAA submissions and evidence on the debt risk premium.

In circumstances where the AER's formal determination process lasts some 12 months and important changes in circumstances may arise within that period, it is important that the AER is able to have regard to relevant information that may become available outside of the strict regulatory process. Obviously this needs to be appropriately balanced with the making of a timely decision; however there is no evidence that the existing provisions do not provide this balance with the AER having the discretion to not consider late material.

Could the same objectives be achieved through existing discretions?

The ENA considers that the AER's objectives could be achieved by maintaining the existing discretion around treatment of late submissions. As noted above, this flexibility allows the AER to not consider any late submission and to otherwise appropriately weight material submitted outside of the strict regulatory process, while still allowing it to consider material that is submitted late for sound reasons.

The current process also provides opportunities for other stakeholders to assess and comment on NSP proposals. Stakeholders are entitled to make submissions, and are subject to the same AER discretion in respect of late submissions – that is, any submission within the designated timeframe *will* be taken into account by the AER while any late submission *may* be taken into account depending on the circumstances.

Nonetheless, the ENA acknowledges that an opportunity exists to facilitate greater stakeholder participation. The AER's proposal does not promote this objective and in fact may hinder it by preventing AER consideration of stakeholder submission that are deemed late or "out of scope". In the following section, an alternative proposal aimed at better achieving this objective is put forward.

Are there more preferable solutions?

An alternative means of promoting greater stakeholder involvement would be to introduce a process of submissions and cross-submissions on the draft decision and revised regulatory proposal. This would allow stakeholders to consider and comment on any further submissions made by the NSP and would allow the NSP to respond to any submissions made by third parties on its revised proposal. This model is used as a matter of practice by the New Zealand Commerce Commission.

Introducing cross-submissions would not alleviate the need for AER discretion in treatment of late submissions. There may still be circumstances in which further submissions are necessary, and the AER should maintain discretion to deal with such late submissions on a case-by-case basis. However, the fact that cross-submissions are available to respond to matters raised in other stakeholder submissions may potentially bear on the AER's exercise of its discretion, particularly if a late submission relates to matters that should have been dealt with in cross-submission.

The ENA would propose that a further two weeks be allowed after submissions on the revised proposal, for cross-submissions. This would be a relatively minor adjustment to the decision-making timetable and would greatly improve opportunities for stakeholder participation. Providing for some further time (say two weeks) before a revised proposal must be submitted, and having the NSP submit any revised proposal together with its submission on the draft decision may also better facilitate stakeholder engagement and otherwise address some of the issues raised by the AER. The ENA is considering alternative drafting to give effect to such a proposal and would be happy to consult further on this issue with the AEMC.

4.7.1.2 Identification and use of confidential information

The problem identified by the AER

The AER has identified an issue with NSPs claiming confidentiality over material in proposals that it considers denies other stakeholders the opportunity to respond to that information that the AER must have regard to. It is claimed that the current drafting of the NER does not allow the AER to exercise judgment in determining the weight that is to be given to confidential information that is provided in a regulatory or revenue proposal. The AER argues that changes to the rules are necessary to improve the balance to be struck between confidentiality and transparency. The AER's proposal is that the NER operate in the same way for NSP and third party confidentiality claims, allowing the AER to afford less weight to information that is subject to a confidentiality claim.

The ENA does not agree that the NER is deficient in relation to the treatment of confidential information. The NER and the NEL appropriately provide for protection of NSPs confidential information, whilst allowing the AER to test the veracity of confidentiality claims. Where a NSP seeks confidential treatment of information which, in the AER's opinion, is not genuinely confidential, the AER has a number options including:

- the AER may request consent from the NSP to disclose the information (in which case the information may then be disclosed under section 28X of the NEL); or

- the AER may unilaterally decide to disclose the information if, in its opinion, the detriment arising from the disclosure does not outweigh public benefit (section 28ZB of the NEL).

Other options also exist that would address the issues that the AER has raised that could provide for better engagement of stakeholders in the regulatory process, as opposed to simply discounting the weight that could be given to what may be highly relevant material. These options would include limited disclosure regimes, where the NSP and interested parties enter into appropriate confidentiality arrangements regarding the sensitive information. The Australian Competition and Consumer Commission has routinely employed these sorts of arrangements in telecommunications regulatory processes.

The ENA also considers that it is appropriate for the NER to operate differently in relation to NSP and third party confidentiality claims (as it does currently). The primary subject of the AER's inquiry will be the NSP's costs and other business information, some of which the NSP may be compelled to provide and much of which is likely to be highly confidential. Where a NSP is required to submit its own cost information or other business records, the AER should be required to have regard to this information, regardless of whether or not it is confidential to the NSP. On the other hand, where a third party is submitting information that bears on the AER's assessment of the NSP's costs and allowable revenue going forward, the NSP should be entitled to interrogate this information or otherwise have it afforded less weight.

It is also important to be cognisant of the types of confidential information that exist. For example, some claims for confidentiality are made in respect of services provided by third parties to NSPs. It is possible that disclosure of the scope and / or charges associated with these services, or information from which these matters could be derived, directly affects the commercial interests of those third parties. At one extreme, the publication of such information could facilitate anti-competitive conduct. Certainly this type of information should not be discounted because it is the subject of a claim for confidentiality.

Do the proposed rule changes appropriately balance prescription and discretion?

The AER Proposed Rule Change provides the AER with too much discretion in dealing with confidentiality claims.

As part of the AER's inquiry, the NSP will be required to submit large amounts of information that is confidential, either under compulsion and/or as part of a regulatory proposal. That the information is confidential is not a matter of choice for the NSP and therefore increasing the AER's discretion in dealing with this information will not affect NSP incentives or make it less likely that confidentiality will be claimed.

Increasing the AER's discretion as proposed will only provide the AER with greater flexibility to ignore probative and informative information that it ought to have regard to. Increasing discretion will not in any way affect the amount of NSP information that is confidential.

As noted in the accompanying Gilbert + Tobin report, increasing discretion in this way has the potential to undermine the integrity of the decision-making process, as it allows the AER to disregard or give less weight to probative information simply because it is confidential to the business.[44]

Could the same objectives be achieved through existing discretions?

As noted above the AER already has several options for dealing with confidentiality claims over material that does not appear to be genuinely confidential. These include seeking NSP agreement to disclosure of the information, or unilaterally disclosing if the detriment arising from the disclosure does not outweigh public benefit. As far as the ENA is aware, the AER has not sought to invoke these powers thus far.

[44] Gilbert + Tobin, *Assessment of proposed changes to the regulatory decision making process under the National Electricity Rules: Report for the Energy Networks Association*, December 2011, p 17.

The ENA considers that the AER could use these existing powers to achieve its objectives of discouraging illegitimate confidentiality claims and allowing for testing of information subject to such claims.

Are there more preferable solutions?

As the ENA does not consider there to be any deficiency in the NER with respect to treatment of confidential information, it has not considered alternative amendments.

4.7.1.3 Framework and approach paper

The problem identified by the AER

The AER identifies several issues with the current NER requirement for a framework and approach paper (FAP) to be published in advance of each price reset. The AER notes that the current 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.

The ENA agrees that these are potential problems with the FAP process. Responding to a FAP can be an unnecessarily time-consuming and resource-intensive process for businesses, and the ENA would welcome a streamlining of this process.

More generally, the ENA considers that in a number of circumstances the FAP process may have limited utility. This has been the experience in parts of the FAP process dealing with incentive schemes (as noted by the AER, this part of the FAP process duplicates other processes) and it may become the case in respect of other elements of the FAP process as transitional issues regarding control mechanisms and service classifications become more settled.

In some circumstances however, a FAP paper may still be necessary. In particular, if a change in control mechanism is determined there needs to be some time to allow the business to prepare a regulatory proposal in line with that determination.

Do the proposed rule changes appropriately balance prescription and discretion?

The ENA considers that in light of the issues identified by the AER, greater discretion could be offered to the AER and NSPs to limit the scope of the FAP, or alternatively bypass the FAP process altogether.

The NER currently *require* the AER to publish a FAP in anticipation of every distribution determination, and this requirement would remain under the AER Rule Change Proposal. However, the ENA considers that in some circumstances a FAP may not be required at all and would only divert resources away from preparations for the reset process.

The ENA proposes that the FAP be made optional, to be initiated by either the AER or the NSP as required. If a FAP process is not initiated by either party then it could be bypassed altogether and the

status quo would be maintained in terms of control mechanisms, service classifications and application of incentive schemes. Further detail on this alternative is set out in Section 6.4.4.

Could the same objectives be achieved through existing discretions?

The objectives of the AER and the ENA on this issue could not be achieved under existing discretions. As noted above, the AER is currently required to publish a FAP dealing with certain matters and may not bypass or reduce the scope of this process.

Are there a more preferable solutions?

Whilst the ENA generally supports the AER proposed changes in respect of the FAP process (AER amendments numbered [6.32]-[6.34]), an alternative exists which may better streamline the regulatory process and remove inefficient duplication of functions.

The ENA's alternative is to make the FAP process optional. Under such an approach either the AER or the NSP could initiate a FAP process if it is deemed necessary, but if neither party initiates the process within a specified timeframe then there is no FAP process. An example of how this process could work is set out in Box 4. The ENA is considering alternative drafting to give effect to this proposal and would be happy to consult further on this issue with the AEMC.

Box 4: How the optional FAP process could work

4.7.1.4 Correcting for material errors

The problem identified by the AER

The AER identifies three separate issues associated with the NER provisions allowing for correction of errors in determination:

- in relation to Chapter 6, the AER suggests that the list of errors for which a distribution determination may be corrected is too narrow, and that it is conceivable that a material error may arise from errors outside the scope of that list;

- in relation to chapter 6A, the AER notes that the potential for a determination to be changed more than is necessary to correct errors caused by provision of false information has the potential to undermine the finality of the decision making process; and

- generally, there may be circumstances where it is more appropriate to "amend" a determination rather than "revoke and substitute".

In relation to the first issue raised by the AER, the ENA does not consider there to be any deficiency in the current drafting of the NER. Clause 6.13(a) provides a clear and properly targeted list of errors that may be corrected for, and it would be inappropriate to expand this list to include any "material error or deficiency in the distribution determination". As the AER correctly observes, providing too much scope for re-opening and correction of determinations potentially undermines the finality and certainty of the decision-making process. Allowing amendment for any "material error or deficiency" potentially creates broad scope for ex post amendment of determinations in a range of circumstances, such as:

- where the AER's reasoning or analysis is deemed to have been deficient in some respect; or

- where expenditure or demand forecasts turn out to have been deficient.

There is no meaningful justification provided by the AER for this substantial broadening of matters for which corrections may be made. It is simply asserted that "it is conceivable that a material error may arise from errors outside the scope of the prescribed list of errors in chapter 6", without reference to what such an error may be or why it might justify amendment of a final determination.

The accompanying Gilbert and Tobin Report – *Assessment of proposed changes to regulatory decision making process under the National Electricity Rules* (Attachment D) includes a review of distribution and transmission determinations, including transmission determinations made by the ACCC under the National Electricity Code which included a similar provision for correction of errors. This review does not indicate that there have been circumstances in which the AER or ACCC considered that it would have been desirable to revoke and substitute a determination, but it did not have the power to do so.[45]

The ENA considers that the prescribed list of errors in clause 6.13(a) appropriately covers the types of errors that the AER should be able to correct for. This list strikes an appropriate balance between allowing correction of clerical and typographical types of errors, while maintaining certainty as to the finality of the determination.

The ENA further notes that the AER has not yet sought to invoke its existing powers to amend distribution determinations under clause 6.13(a), despite situations arising where it would have been appropriate to

[45] Gilbert + Tobin, *Assessment of proposed changes to the regulatory decision making process under the National Electricity Rules: Report for the Energy Networks Association*, December 2011, pp 23-24.

do so (see Box 5). Given that the scope of these existing powers has not yet been tested, there can be no argument that they are too narrow and need to be substantially expanded.

In relation to the second issue identified by the AER, the ENA agrees that an alignment of Chapter 6 and Chapter 6A is appropriate. As noted by the AER, it is important to promote certainty as to the finality of determinations, and therefore it is appropriate that the AER only be entitled to correct determinations to the extent necessary. To this end, the ENA considers that it would be appropriate for clause 6A.15(a) to be aligned with clause 6.13(a) in the specification of matters that may be corrected for.

In relation to the third issue, the ENA sees limited utility in amending the NER as proposed given that there is likely to be no practical difference between "amending" and "revoking/substituting". The ENA does not consider this to be a problem with the NER that justifies amendment.

Box 5: AER failure to use existing powers to correct DRP annualisation error

In its October 2010 distribution determinations for the Victorian DNSPs, the AER made a calculation error which was material to its decision on the debt risk premium. The AER failed to properly annualise the semi-annual fair value yields sourced from Bloomberg as required by clause 6.5.2(e) of the NER. This resulted in a miscalculation of the debt risk premium for each of the Victorian DNSPs of around 15 basis points.

Shortly after the AER published its final decision and prior to any application being lodged for merits review, the DNSPs wrote to the AER seeking correction of this error pursuant to clause 6.13 of the NER. The AER did not respond to this request and did not make any correction.

In order to have this error corrected, the DNSPs sought merits review of the AER's decision in respect of the debt risk premium. The AER ultimately conceded error before the Tribunal.

Do the proposed rule changes appropriately balance prescription and discretion?

The AER Rule Change Proposal greatly expands discretion to amend a determination, by allowing amendment for any "material error or deficiency". It is not apparent what the term "deficiency" is intended to cover, and it could potentially encompass a range of shortcomings in the AER's analysis, reasoning or assessment of inputs.

As the AER acknowledges, it is important to balance the need for discretion to correct errors, with the need to preserve the finality and certainty of the final determination. The ENA considers that the current provisions of Chapter 6 providing for correction of errors adequately strike this balance. Clause 6.13(a) provides a clear and targeted list of errors that may be corrected for, while preserving the finality of the determination as a whole. Any expansion of the existing discretion at the expense of finality and certainty would not be appropriate.

As noted above, the scope of the AER's discretion to correct errors in determinations is yet to be tested, and therefore it would not appear to be appropriate or justified to expand this discretion on grounds that it is currently too narrow.

Could the same objectives be achieved through existing discretions?

For the reasons set out above, the AER's current level of discretion is sufficient to address errors requiring correction in final determinations. However, the ENA notes that this is yet to be tested by the AER.

Are there more preferable solutions?

As the ENA does not consider there to be a problem with the current level of discretion for correction of errors under Chapter 6 of the NER, it has not considered alternative amendments.

The ENA agrees with the AER's proposed amendment to clause 6A.15(c) to align this with the corresponding provision in Chapter 6.

4.7.1.5 Timeframe for WACC reviews

The problem identified by the AER

The AER identifies the inconsistency between consultation procedures under Chapter 6 and Chapter 6A as a potential issue for administration of WACC reviews. The AER notes that while Chapter 6 permits the AER to extend the maximum 80 day timeframe between draft and final decisions if the matters are unusually complex or the extension is necessary due to circumstances beyond the AER's control, Chapter 6A does not permit such an extension.

The ENA agrees that this inconsistency between transmission and distribution consultation procedures is undesirable and may cause difficulty if complexity of issues raised in a WACC review creates a need for extension of time. As noted by the AER in its discussion of rate of return issues, these matters can be complex and also highly contentious due to the capital-intensive nature of energy network businesses and the large contribution of the return on capital to revenue allowances. Additionally, whilst the ENA strongly opposes the AER's proposals to effectively remove rate of return issues from individual revenue determinations (refer to Section 4.6), we note that if this proposal were to be adopted by the AEMC the WACC review process would assume even greater importance.

Do the proposed rule changes appropriately balance prescription and discretion?

The AER's proposed solution is to amend both Chapter 6 and Chapter 6A to provide that the WACC review would be conducted under the existing transmission and distribution consultation procedures, subject to the reference to 80 business days being read as a reference to 100 business days, and is not subject to any timeframe extension. The effect of this would be to cap the timeframe between draft and final decision at 100 days.

The ENA considers it appropriate for the timeframe between draft and final decisions to be capped at 100 days as proposed by the AER. Whilst it is important that enough time be allowed for consideration of all evidence by the AER as part of its review, it is at least equally important that NSPs have certainty as to when a final determination will be made. If the timeframe for a final decision is left open to extension, there may be uncertainty as to whether a WACC review will apply to revenue reset processes that are to follow.[46]

The ENA notes that the AER also has discretion (both under the current rules and the proposed changes) to engage in extensive consultation prior to issuing a draft decision. This may involve any or all of the following steps:

- issuing an initial positions paper, setting out preliminary views on parameter values or methodologies to be adopted;

[46] For example in 2009, electricity DNSPs in Queensland and South Australia were required to submit revenue proposals just one month after completion of the WACC review. Had the timeframe for the WACC review final decision been open to extension, there may have been some uncertainty as to whether it would apply to these DNSPs.

- convening industry forums to discuss key issues or recent market developments; and/or
- convening an informal conference or panel process for experts to exchange views.

Introducing further consultation steps such as those listed above could potentially reduce the workload between draft and final decisions, by identifying key issues and areas of disagreement early in the process.

Could the same objectives be achieved through existing discretions?

The ENA agrees with the AER that it does not currently have discretion to extend the timeframe between draft and final decisions beyond 80 days for a WACC review conducted under the transmission consultation procedures.

Are there more preferable solutions?

For the reasons above, the ENA agrees with the proposed amendments to clauses 6.5.4(a) and 6A.6.2(f) of the NER.

4.7.1.6 Assessment of cost pass through events, contingent projects and capex re-openers

The problem identified by the AER

The AER notes that the NER currently imposes hard deadlines for it to assess positive pass through applications, contingent projects and capex reopeners. In the case of positive pass through applications a 60 day time limit is imposed, while for contingent projects and capex reopeners the limit is 30 days. The AER suggests that that while these timeframes may be adequate in most cases, circumstances may arise in future which require an extension of the assessment timeframe.

The ENA agrees that the fixed timeframes set out in the NER may not be sufficient in all cases. As noted by the AER, it may in future receive pass through applications of increasing complexity which warrant more detailed and careful consideration.

Do the proposed rule changes appropriately balance prescription and discretion?

The AER's proposal is that the base assessment period be 40 days, with an option to extend the assessment period up to a maximum of 100 days if the decision involves questions of unusual complexity or if the AER requires further information.

The ENA considers that the proposed solution does not properly address the problem identified by the AER. Under the proposed rule change, the AER would have a relatively broad discretion to extend the assessment timeframe out to 100 days, but there would be no scope to extend beyond this in cases of particular complexity or where the AER needs to await further information.

Moreover, the broadening of discretion sought by the AER is not appropriately targeted at the problem identified and therefore may not achieve the desired outcome. The ENA considers that an extension of time is most likely to be required in situations where the AER is required to await further information or the completion of an associated process (e.g. where a related inquiry in being undertaken by another Government agency). In these situations, a simple extension to 100 days may not be sufficient and a more targeted 'stop-the-clock' mechanism is likely to be more appropriate (see Box 6 below).

Could the same objectives be achieved through existing discretions?

The ENA agrees with the AER that it does not currently have discretion to extend the timeframes for assessment positive pass through applications, contingent projects and capex reopeners.

Are there more preferable solutions?

The ENA considers that the rule change to address this issue could be better targeted at the potential problems identified by the AER.

Rather than a broad discretion to extend the timeframe up to a maximum of 100 days, the ENA proposes that the AER be allowed to "stop the clock" on an assessment in specific circumstances, being:

- where it needs to seek further information from either the NSP or a third party;
- where it is required to consult with stakeholders; or
- where it must await the outcome of a related inquiry.

Any stopping of the clock on the assessment process would be limited to the time that is absorbed by waiting for receipt of information, consulting or waiting for the related inquiry to be concluded. An outline of the proposed "stop-the-clock" process is provided in Box 6.

The ENA submits that this is a superior solution to that proposed by the AER, as it targets the broadening of discretion at the particular problems identified by the AER and also guides this discretion by clearly identifying the circumstances in which an extension will be justified.

Box 6: Alternative stop-the-clock mechanism

Under a stop-the-clock mechanism, the AER would be able to, by written notice to a NSP, determine that any day that occurs:

(1) between the AER requesting further information from any party and receipt of that information;

(2) between initiation of any consultation with stakeholders and receipt of submissions; or

(3) between the initiation and conclusion of any related inquiry;

is not to be taken into consideration in calculating the number of days allowed to assess pass through applications, contingent projects and capex reopeners, where the AER considers that the further information, consultation or any finding of the related inquiry is reasonably necessary for it to make its assessment.

4.7.1.7 Process-related matters in expenditure factors

The problem identified by the AER

As part of its review of the expenditure factors listed in clauses 6.5.6 and 6.5.7 (for distribution) and 6A.6.6 and 6A.6.7 (for transmission), the AER identifies three factors it must have regard to that are

procedural in nature and which do not substantively add to an assessment against the expenditure criteria:

- the information included in or accompanying the building block proposal;
- submissions received in the course of consulting on the building block proposal; and
- analysis undertaken by or for the AER and published before the distribution/transmission determination is made in its final form.

These three factors are referred to by the AER as "process factors".[47]

The AER states that the co-existence of these process factors with substantive matters that the AER must have regard to creates ambiguity as to the appropriate balancing of the various factors. Additionally, the AER states that the requirement in the third process factor for it to publish its own analysis prior to making a determination "has the potential to make decision-making processes unworkable".

The ENA does not agree that there is any ambiguity created by the existence of these process factors. Their meaning is clear: that the AER must have regard to the NSP proposal, submissions received in the course of consultation and any analysis which it has undertaken and published prior to making its determination. The fact that the AER raises an issue with the third of these factors suggests that it clearly understands the requirement imposed on it.

There is also no evidence presented by the AER of the requirement for publication of its own analysis making the decision-making process "unworkable". The AER has in the past published and consulted on further analysis between its draft and final decisions and this has not caused any difficulty in terms of the timing or administration of the decision-making process.[48]

Do the proposed rule changes appropriately balance prescription and discretion?

The AER's proposed amendments are three-fold:

1 the AER proposes to move the process factors out of the list of expenditure factors and into to Part E of Chapter 6 (for distribution) and chapter 6A (for transmission) which deal with the decision-making process more generally;

2 the requirements to consider proposals and submissions would be subject to the new restrictions on submissions proposed by the AER (discussed above); and

3 the AER proposes to amend the third process factor so that it is only required to have regard to "analysis undertaken by or for the AER" – there would no longer be a requirement for this analysis to be published prior to making a determination.

For the reasons set out above, there does not appear to be any problem with the current location or drafting of these factors, and therefore the ENA does not consider any amendment to be necessary.

[47] AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules*, September 2011, p 34.

[48] In the Victorian electricity distribution price review, the AER changed its approach to estimating the debt risk premium between draft and final decisions in light of new information. The AER was able to consult on its new approach and take into account submissions prior to making its distribution determinations for the Victorian DNSPs. The AER ultimately changed its approach to determining the debt risk premium from that foreshadowed in its consultation, recognising some of the points made in submissions (*AER draft approach for measuring the debt risk premium for the Victorian Electricity Distribution Determinations*, 27 September 2010).

Moreover, for the reasons set out in 4.7.1.1 above, the ENA strongly objects to the proposed restrictions on submissions that the AER would be required to consider.

These issues aside, the ENA considers the expansion of the AER's discretion to undertake any new analysis and not publish or consult on this prior to making a determination to be inappropriate. The requirement for AER analysis to be published was inserted by the AEMC to promote transparency in the regulatory process and ensure that analysis conducted by the AER is made available for public scrutiny.[49] This requirement for transparency remains a critical part of the decision-making process and should not now be abandoned as is proposed by the AER.

The accompanying Gilbert and Tobin Report – *Assessment of proposed changes to regulatory decision making process under the National Electricity Rules* (Attachment D) highlights the importance of transparency. Gilbert + Tobin notes that transparency promotes confidence in the regime and provides for better quality decision making by exposing analysis and reasoning to public scrutiny, thus allowing its probative value to be tested and ensuring that only the most robust analysis and evidence is relied upon in making a determination.[50]

The ENA submits that there is no justification for expanding the AER's discretion in this way and removing the requirement for transparency of AER analysis.

Could the same objectives be achieved through existing discretions?

The AER's objectives could not be achieved through existing discretions, as the NER appropriately requires pre-publication of any analysis the AER intends to rely on.

Are there more preferable solutions?

As the ENA does not consider there to be a problem with the process factors listed in clauses 6.5.6, 6.5.7, 6A.6.6 and 6A.6.7, it has not considered alternative amendments.

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[49] AEMC, *Draft Rule Determination: Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006*, 26 July 2006, p 55.

[50] Gilbert + Tobin, *Assessment of proposed changes to the regulatory decision making process under the National Electricity Rules: Report for the Energy Networks Association*, December 2011, p 11.

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Attachments A-D

Attachment A – Joint Report – Assessment of the AER's proposed WACC Framework

Attachment B – Joint Report – Design of Capital Expenditure Incentive Arrangements

Attachment C – Joint Report – Assessment of the AER's Rule Change Proposal for Forecast Expenditure

Attachment D – Gilbert + Tobin Report – Assessment of proposed changes to the regulatory decision making process under the National Electricity Rules

Attachment A

Joint Report

Gilbert + Tobin Lawyers
NERA Economic Consulting and
pwc

Assessment of the AER's proposed WACC Framework

Assessment of the AER's proposed WACC Framework

A joint report for the
Energy Networks Association

8 December 2011

Project Team

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Contents

1. Introduction

This report has been jointly prepared by Jeff Balchin, Catherine Dermody and Greg Houston at the request of the Energy Networks Association (ENA), for submission to the Australian Energy Market Commission (AEMC). Its subject is the rate of return elements of the rule change proposal put forward in September 2011 by the Australian Energy Regulator (AER) for decision by the AEMC. It is one of three separate joint reports prepared for the ENA, each addressing particular aspects of AER's rule change proposal. In this report, the ENA has asked us to assess the proposed framework for determining the rate of return for electricity transmission and distribution network service providers as well as gas pipelines. Our specific terms of reference are as follows:

"Prepare a joint expert panel external report that:

1. describes the essential differences between the Chapter 6 and Chapter 6A WACC frameworks, and the role of the Chapter 6 'safety valve' in dealing with aberrant market conditions and error;
2. describes the effects of the GFC on capital markets (the flight to quality) and the implications for the performance of standard techniques for measuring the cost of capital and the appropriate response; and
3. will illustrate the importance of safety valves when WACC methodologies of values are otherwise 'locked in' and why a Chapter 6-style safety valve remains necessary; and
4. describes the role of the Tribunal process in bring closure to difficult and/or contentious matter, and the role of precedent in avoiding 'continual review'."

1.1. Authors and expertise

The authors of this report are: Jeff Balchin, Principal of PwC Australia; Catherine Dermody, Partner of Gilbert + Tobin; and Greg Houston, Director of NERA Economic Consulting. Greg and Jeff are both economists with substantial expertise in the economic regulation of network infrastructure services, while Catherine is a regulatory lawyer with deep expertise in the energy sector. This particular report has also been co-authored by Brendan Quach, Senior Consultant of NERA Economic Consulting, also an economist with substantial expertise in regulatory finance matters. A short biography for each of Jeff, Catherine, Greg and Brendan is attached as appendix B.

The authors also wish to acknowledge the substantial contributions of Sarah Turner, Research Officer, NERA Economic Consulting, in the preparation of this report.

1.2. Structure of this report

The remainder of this report is structured as follows:

- section 2 sets out the context for this report including the current frameworks for determining the cost of capital for electricity transmission network service providers (TNSPs), and distribution network service providers (DNSPs) and gas pipelines, and the issues with the current rules identified by the AER in its Rule Change Proposal;

- section 3 examines the effects of the global financial crisis on prevailing conditions in the financial markets;
- section 4 assesses how the AER's proposed framework would have operated had it been implemented from the time the current rules were put in place; and
- section 5 presents our conclusion that recent financial market conditions demonstrate the need for a mechanism that can be invoked by any party so that all available information can be considered at the time of any particular rate of return decision.

Appendix A provides a summary of the WACC/taxation issues that have been subject to merits review by the Australian Competition Tribunal, while appendix B provides a short biography for each of the authors of this report.

2. Context for this Report

This section provides an overview of:

- the current regulatory frameworks for setting the rate of return for electricity network service providers (NSPs) and gas pipelines; and
- a summary of the AER's proposal for a single cost of capital framework for all energy networks.

2.1. Three WACC frameworks

The current frameworks for setting the rate of return for electricity transmission, electricity distribution and gas pipeline businesses differ in terms of the level of prescription and flexibility to respond to current market conditions. The following sections describe the different characteristics of the current framework for each industry.

2.1.1. Electricity transmission

Chapter 6A of the National Electricity Rules (NER) prescribes that the rate of return be calculated as a nominal post-tax weighted average cost of capital (WACC) in accordance with the following formula.[1]

$$WACC = k_e \frac{E}{V} + k_d \frac{D}{V}$$

Where

k_e is the cost of equity (determined using the Capital Asset Pricing Model) ie:

$$k_e = r_f + b_e \times MRP$$

r_f is the nominal risk free rate

β_e is the equity beta

MRP is the Market Risk Premium

k_d is the cost of debt:

$$k_d = r_f + DRP$$

DRP is the Debt Risk Premium

$\frac{E}{V}$ & $\frac{D}{V}$ are the market value of equity (debt) as a proportion of the market value of equity and debt

Chapter 6A also provides for the AER to carry out a review every five years of various matters relevant to the determination of the above inputs.[2] The following matters (and the method of their calculation) may form the subject of a review:[3]

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1 Clause 6A.6.2(b) of the NER.

- the nominal risk free rate;
- the equity beta;
- the MRP;
- the maturity period and bond rates in relation to the calculation of the nominal risk free in the circumstances where there are no Commonwealth Government bonds with a maturity of 10 years on any day in the averaging period;
- the ratio of the value of debt to the value of equity and debt;
- the credit rating levels for the purposes of measuring the DRP;
- the assumed utilisation of imputation credits (gamma).

In undertaking the review the AER is required to comply with and/or have regard to a range of considerations. At the highest level, the AER must ensure that its review contributes to the achievement of the national electricity objective (NEO),[4] and must take into account the revenue and pricing principles.[5] The rate of return provisions in the NER also require the AER to have regard to:[6]

- the need for the rate of return to be a forward looking rate of return that is commensurate with prevailing conditions in the market for funds and the risk involved in providing prescribed transmission services;
- the need for the return on debt to reflect the current cost of borrowings for comparable debt;
- the need for the credit rating levels or values attributable to, or the methods of calculating the parameters to be based on a benchmark efficient provider; and
- that where the credit rating levels or the values attributable to, or the method of calculating, parameters cannot be determined with certainty:
  - the need to achieve an outcome that is consistent with the NEO; and
  - the need for persuasive evidence before adopting a credit rating level or a value for, or a method of calculating that parameter that differs from the credit rating level, value or the method of calculation that has previously been adopted for it.

Following the AER's review, pursuant to clause 6A.6.2(h), the AER may adopt values, methodologies or credit rating levels that are different from those specified in the Rules or from those adopted in a previous review. For the purposes of this report, we refer to the AER's review of the values, methodologies or credit rating levels used to determine the rate of return as the WACC Statement.

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2 Clause 6A.6.2(g) of the NER.

3 Clauses 6A.6.2(b) and 6A.6.4(b) of the NER.

4 National Electricity Law, Part 3, clause 16(1)

5 National Electricity Law, Part 3, clause 16(2)(a)

6 Clauses 6A.6.2(j) and 6A.6.4(e) of the NER.

The AER's decision to revise (or not) the WACC values, methodologies or credit rating levels to be adopted in the WACC Statement is not subject to merits review.[7]

Not all elements of the WACC are able to be reviewed by the AER in the WACC Statement. In particular, the only aspect of the DRP that can properly form the subject of the WACC Statement is the credit rating level and the term of debt for which the premium relates (the latter of which being given effect through the separate decision in relation to the term of the risk free rate).[8] This means that the DRP must otherwise be measured as set out in clause 6A.6.2(e), being:

> the premium determined for that regulatory control period by the AER as the margin between the annualised nominal risk free rate and the observed annualised Australian benchmark corporate bond rate for corporate bonds which have a BBB+ credit rating from Standard and Poors and a maturity equal to that used to derive the nominal risk free rate.

Following completion of the AER's review, the revised values, methodologies or credit rating levels set out in the WACC Statement must be used in all future revenue proposals submitted to the AER. This applies until such time as the AER conducts a subsequent review. Since the AER has no discretion at the time of each revenue decision as to whether or not to adopt WACC statement, the specified values, methodologies or credit rating levels are not subject to merits review at the time of the TNSP's revenue determination.

2.1.2. Electricity distribution

The framework for setting the rate of return for DNSPs and set out in chapter 6 of the NER has a number of similarities, and one distinct difference, to the framework specified in chapter 6A. The common features of both chapter 6 and chapter 6A WACC frameworks are:

- the NEO and the revenue and pricing principles, as set out in the National Electricity Law;
- the specification of a nominal post-tax WACC and the CAPM;
- a periodic review of the same parameters values, methods or credit ratings, although the AER has some discretion on the timing of the review that must be undertaken at intervals not exceeding five years;
- that for the DRP only the credit rating is subject to change in the WACC Statement;
- the absence of any form of merits review of the AER's decision as to whether or not to revise the values, methods or credit ratings in the WACC statement; and
- the matters that to which the AER must have regard in preparing its WACC statement, including the need for persuasive evidence before changing from a previously adopted values or method in the WACC Statement.

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[7] The WACC statement is neither a network revenue nor price determination, nor reviewable regulatory decision prescribed by the National Electricity Regulation. See clause 71A of the *National Electricity (South Australia) Act 1996*, and clause 9 of the *National Electricity (South Australia) Regulations*.

[8] Clause 6A.6.2(i)(2) of the NER.

The principal and critical distinction between the two frameworks is that, at the time of each revenue or price determination, it is open to a DNSP to propose that a value in the WACC Statement not be adopted, any other relevant stakeholder to submit that such a value be or not be adopted, and for the AER, on the basis of the material before it, to decide whether or not to adopt WACC Statement values or some other value. A decision by the AER to adopt different values for particular WACC parameters is subject to criteria that are set down in the Rules.[9]

In developing chapter 6, the Ministerial Council on Energy Standing Committee of Officials (SCO) considered that the distribution rules should permit the WACC to be subject to merits review on a determination-by-determination basis. The SCO did not consider it appropriate to replicate the transmission rules, but that given the different parameters adopted by jurisdictions under the state-based approach, to allow distribution to converge, should the AER consider it appropriate, over time.[10]

The SCO noted:[11]

> The final decision on WACC will be part of each regulatory determination. However, the AER will still review WACC every five years and promulgate non-binding indicative guidelines [Statement of Regulatory Intent] on the industry wide WACC values. At the regulatory reset, DNSPs and other stakeholder [sic] will be able to seek variation from these guidelines. The proponent seeking variation will need to justify why the 5 year review parameters are not applicable and whether there has been a change in market circumstance. The AER will need to assess whether there has been a change in market circumstances to warrant a deviation from the parameter specified in its guidelines or whether sufficiently persuasive evidence has been provided for different values to be applied for the relevant DNSP. Linking the WACC to the regulatory determination means that the AER's consideration will be merits reviewable.

In other words, the SCO envisaged that the WACC Statement parameters would be varied when there was persuasive evidence:

- that change in the market circumstances warrant a deviation from a specified parameter value; or
- that the circumstances of the relevant DNSP justify that different value be applied.

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9 Clause 6.5.4(g), (h) and (i) of the NER, the AER is required to apply the Statement unless there is 'persuasive evidence justifying the departure'. When assessing whether such a departure is justified, the AER is required to apply the same method and/or principles that were applied when determining the Statement (the 'underlying criteria'), and inquire whether, applying those criteria, 'a material change in circumstances ... or any other factor' now makes the relevant aspect of the Statement inappropriate.

10 SCO, *Table 1: SCO Response to Stakeholder Comments on the Exposure Draft of the National Electricity Rules for Distribution Revenue and Pricing (Chapter 6)*, page 16 (item 49).

11 SCO, *Table 1: SCO Response to Stakeholder Comments on the Exposure Draft of the National Electricity Rules for Distribution Revenue and Pricing (Chapter 6)*, page 17 (item 50).

2.1.3. Gas pipelines

The gas pipeline framework for determining the rate of return is substantially different from that applying to electricity NSPs. While the NER specify the financial models and parameters for the rate of return, the National Gas Rules (NGR) establish an overarching cost of capital principle. Rule 87(1) states that:

> The rate of return on capital is to be commensurate with prevailing conditions in the market for funds and the risk involved in providing reference services.

Rule 87(2) provides some guidance on how that overarching principle is to be applied by the AER in determining a rate of return on capital, ie:

- it will be assumed that the service provider meets benchmark levels of efficiency and uses a financing structure that meets benchmark standards as to gearing and other financial parameters for a going concern and reflects in other respects best practice; and
- a well accepted approach that incorporates the cost of equity and debt, such as the Weighted Average Cost of Capital, is to be used; and a well accepted financial model, such as the Capital Asset Pricing Model, is to be used.

One consequence of this framework is that all elements of AER rate of return decisions made in the context of gas access arrangements are subject to merits appeal.

Under the NGR, there is no periodic, AER review of generic WACC parameters, and the WACC Statement made under the NER does not formally apply to gas networks. Notwithstanding, in its 2009 WACC Statement for electricity NSPs, the AER stated that, "given the similarity of the issues, the AER may use the outcomes of this review in the consideration of WACC issues in future gas access arrangement reviews".[12]

2.2. AER rule change proposal

The AER has proposed that the NER and NGR be amended:

- to establish a single WACC framework that largely reflects the current approach for electricity transmission of fixing WACC parameter values or methods by way of a periodic Statement on the Cost of Capital (SoCC);
- to adjust chapters 6 and 6A so that the DRP method is subsumed within SoCC process (rather than being fixed by rules sitting outside the scope of a SoCC);
- to remove the 'persuasive evidence' criteria before changing a value, method or credit rating in the SoCC; and
- to allow the AER the flexibility to deal with change in financial market or other circumstances through bringing forward the review, since the SoCC is to be undertaken at intervals determined by the AER, but which are not to be more than 5 years.

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[12] AER, *Electricity Transmission and Distribution Network Service Providers: Review of the Weighted Average Cost of Capital (WACC) Parameters – Final Decision*, May 2009, page 6.

The AER cites the following reasons for its proposed rule change:

- convergence to a periodic SoCC has administrative efficiency benefits;[13]
- it would avoid the AER and networks operating in a continual 'WACC review' mode that has characterised recent distribution and gas decisions;[14]
- new information or theory evolves slowly, and so there is little reason for decisions to continually review the WACC parameter values, methods or credit ratings;[15]
- the persuasive evidence requirement is asymmetric and is a cause of bias since firms can "cherry pick" WACC parameters;[16] and
- the benchmark DRP has recently been set at a rate significantly above the cost of newly issued NSP debt.[17]

We note that the AER cite as supports for change the ongoing debate on the MRP. The AER characterises the MRP debate as one where DNSPs and gas pipelines have been:[18]

> attempting to cherry pick certain parameters and engage in arguments even where evidence is not persuasive, or to repeat and repackage data and theoretical arguments at each distribution determination

Notably, the AER's characterisation of recent history as one of being 'continual WACC review' involves no acknowledgement of the effect that the 'global financial crisis' (GFC) may have had on the WACC determination process. The effect of the GFC on the financial markets, and its particular implications for the regulated WACC and MRP, is discussed in greater detail in the following sections of this report.

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[13] AER, *Economic regulation of gas distribution and transmission services: AER's proposed changes to the National Gas Rules, September* 2011, page 3.

[14] AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules, September* 2011, page 69.

[15] *Ibid.*

[16] *Ibid.*

[17] AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules, September* 2011, p 79.

[18] AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules, September* 2011, p 68.

3. Implications of GFC for Financial Markets

3.1. The Global Financial Crisis

This section describes the events that are colloquially known as the global financial crisis or GFC. There is no single event that defines the GFC. Rather, it refers to a period during which the value of financial assets were subject to cataclysmic change as perceptions of risk and the creditworthiness of both major financial institutions and sovereign borrowers were subject to rapid change. In consequence the market value of virtually all financial assets was subject to unprecedented volatility. These developments were occasioned by a series of detrimental occurrences, including:

- the collapse of the US subprime mortgage market;
- the bankruptcy of Lehman Brothers in September 2008; and
- more recently, the European government debt crisis.

3.1.1. US subprime mortgages

The GFC stems from what was originally known as the subprime crisis in June to mid-July 2007.[19] The subprime crisis was a problem initially assumed to be contained in the US subprime mortgage sector and relates to the subprime lending.

In the US, mortgages that do not meet the underwriting standards for entry into mortgages pools guaranteed by the government-sponsored enterprises Freddie Mac and Fannie Mae are known as sub-prime.[20] Such mortgages are associated with borrowers that have a relatively higher risk of default. Over a period of some years, the fact that sub-prime mortgages are not able to be backed by the government-sponsored enterprises led to the emergence of private mortgage-backed securities.[21]

The sub-prime crisis began in mid June 2007 following the losses suffered by two hedge funds managed by Bear Stearns, which had invested in securities backed by sub-prime mortgage loans.[22] This event highlighted the rise in sub-prime mortgage default rates (following an adverse change in the housing market, leading to an increase in the number of mortgagors that were in negative equity) and, as such, credit rating agencies downgraded a large number of collateralised debt obligations (CDOs) that used mortgages as collateral.[23]

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19 Bank for International Settlements, BIS 78th Annual Report, 30 June 2008, page 92.

20 Reserve Bank of Australia, A Comparison of the US and Australian Housing Markets: Address to the Sub-prime Mortgage Meltdown Symposium, 16 May 2008.

21 Reserve Bank of Australia, A Comparison of the US and Australian Housing Markets: Address to the Sub-prime Mortgage Meltdown Symposium, 16 May 2008.

22 Bank for International Settlements, BIS 78th Annual Report, 30 June 2008, page 95.

23 Reserve Bank of Australia, Lessons from the Financial Turmoil of 2007 and 2008, October 2008, Cohen and Eli Remolona, The Unfolding Turmoil of 2007–2008: Lessons and Responses, page 9.

The crisis spread to the interbank money markets because banks did not know the level of exposure of other entities, resulting in banks hoarding liquidity.[24] This saw the asset-backed commercial paper market freeze in several countries and the London Interbank Offered Rate (LIBOR) overnight index swap (OIS) spreads rising sharply.[25] As a result, there was a decrease in credit available for borrowing and a general loss of confidence in financial markets, culminating it what became known as the GFC.

3.1.2. Collapse of Lehman Brothers

Following the effects of the subprime crisis on funding liquidity, a number of banks experienced losses and write downs as asset prices weakened.[26] From March to mid-September 2008, these funding problems raised concerns about solvency and the risk of bank failures. On 15 September 2008 the investment bank Lehman Brothers collapsed, leading to a global loss of confidence.[27] The OECD note that "[f]ollowing the collapse of Lehman Brothers in mid-September, a generalised loss of confidence between financial institutions triggered reactions akin to a 'blackout' in global financial markets".[28]

September 2008 also saw both Fannie Mae and Freddie Mac placed in conservatorship, as well as the sale of Merrill Lynch to Bank of America and the US government taking over 80 per cent of the equity in AIG.[29] The events that occurred in September 2008 highlight the progression of the GFC, with these effects being felt throughout global financial markets. Indeed the IMF states in its October 2008 World Economic Outlook that:[30]

> The financial crisis that first erupted with the U.S. subprime mortgage collapse in August 2007 has deepened further in the past six months and entered a tumultuous new phase in September. The impact has been felt across the global financial system, including in emerging markets to an increasing extent. Intensifying solvency concerns have led to emergency resolutions of major U.S. and European financial institutions and have badly shaken confidence.

In a speech on 31 March 2009, the RBA Assistant Governor (Financial Markets) Guy Debelle stated that:

> …funding markets shut completely following the collapse of Lehman Brothers. All global financial markets were dislocated by this event, but not surprisingly term debt

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[24] Reserve Bank of Australia, *The Global Financial Crisis: Causes, Consequences and Countermeasures: Remarks to the conference: 'Australia in the global storm: A conference on the implications of the global financial crisis for Australia and its region' Victoria University*, 15 April 2009.

[25] Reserve Bank of Australia, Lessons from the Financial Turmoil of 2007 and 2008, October 2008, Cohen and Eli Remolona, The Unfolding Turmoil of 2007–2008: Lessons and Responses, page 9.

[26] Bank for International Settlements, *BIS 79th Annual Report*, 29 June 2009, page 16.

[27] Bank for International Settlements, *BIS 79th Annual Report*, 29 June 2009, page 16.

[28] Competition Economists Group, *Rate of Return and the Averaging Period Under the National Electricity Rules and Law*, January 2008, page 31.

[29] Competition Economists Group, *Rate of Return and the Averaging Period Under the National Electricity Rules and Law*, January 2008, page 31.

[30] Competition Economists Group, *Rate of Return and the Averaging Period Under the National Electricity Rules and Law*, January 2008, page 31.

> markets were about the most affected… In many money markets around the world, maturities shortened dramatically so that only the overnight market was (barely) functioning and a number of central banks became effectively the intermediator of last resort.
>
> …in the wake of the dislocation induced by Lehman's, many countries, including Australia, moved to guarantee bank debt issuance.
>
> Soon after the introduction of the guarantee, Australian banks were able to once again access term debt markets… There has, however, been little investor appetite for unguaranteed debt, despite other indications of an improvement in credit market conditions."

3.1.3. European government debt crisis

The most recent incarnation of the GFC has been the deterioration of government finances in a number of European countries. The declining fiscal situation of European governments has led to heightened concerns of the sustainability of sovereign debt.[31] The levels of debt in Greece, Ireland and Portugal escalated to the point that international bailout packages were devised for these countries in 2010 and 2011.[32] However, sovereign debt risks have continued to spread, which has recently affected Italy and Spain.[33] Moreover, the recent failure of the German government to sell its €6 billion worth of loans "effectively" froze the global markets in November 2011.[34] Ralph Norris (CEO of Commonwealth Bank) stated that:[35]

> "This [European debt crisis] has potential to be significantly worse than the Lehman Brothers collapse and the subprime crisis because now we are talking about nation states"

The ongoing European debt crisis and the inability of governments to resolve the sovereign debt problems, raises the prospect that this crisis may not be a temporary period of market uncertainty and could be the start of a severe market dislocation.[36]

3.2. Impact on Australian financial markets

Australian financial markets have avoided directly contributing to these crises. However, Australia is highly integrated with world financial markets and so the effects of the GFC have had a profound impact on Australian markets.

The effects of the GFC on Australia became apparent between July and August 2007 with the failure of two Australian Hedge Funds – Basis Capital and Absolute Capital – as well as the announcement of financing of problems of a mortgage securitiser – RAMS Home Loans.[37]

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31 Reserve Bank of Australia, *Financial Stability Review*, September 2011, page 5.

32 Reserve Bank of Australia, *Financial Stability Review*, September 2011, page 5.

33 Reserve Bank of Australia, *Financial Stability Review*, September 2011, page 5.

34 Sydney Morning Herald, *GFC II on its Way: Norris*, 25 November 2011.

35 Sydney Morning Herald, *GFC II on its Way: Norris*, 25 November 2011.

36 Reserve Bank of Australia, *Financial Stability Review*, September 2011, page 1.

Further, the closure of international securitisation markets led to a halt in the domestic markets.[38] The Australian banks had previously relied on international wholesale financing and, due to the increased price of risk, the banks' cost of funding increased, with these increases passed onto borrowers.[39] As such, these higher borrowing costs, as well as depressed equity and asset prices, drove many of the negative outcomes associated with the GFC.[40]

Australia, like the US, also experienced a rise in spreads in short-term money markets in mid-2007.[41] In response to this decline in interbank lending, the RBA increased the supply of cash in the system – as measured by exchange settlement balances – in order to maintain the cash rate.[42]

The Australian stock market fell soon after the global stock market crash, itself a result of the economic downturn and a reduced appetite for risk.[43] Both the Australian household and business sectors appear to have become significantly more risk-averse following the onset of the GFC, as indicated by a substantial increase in household saving and higher equity funding by a number of businesses.[44]

Directly observable effects of the GFC on Australian financial markets have included:

- major falls in equity markets due to a combination of reduced outlook for earnings and/or earnings growth and a reduced appetite for risk;
- a fall in yields for Commonwealth Government Securities (CGS) due to increased demand for 'safe' securities combined with progressing easing of monetary policy by the Reserve Bank of Australia (RBA); and
- an increase in the corporate DRP and the subsequent preference to issue bonds at shorter than historic maturities.

Evidence of these effects can be seen in the following three figures on:

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37 Kevin Davis, *The Australian Financial System in the 2000s*, Prepared for Reserve Bank of Australia, 28 July 2011, page 32.

38 Kevin Davis, *The Australian Financial System in the 2000s*, Prepared for Reserve Bank of Australia, 28 July 2011, page 32.

39 Kevin Davis, *The Australian Financial System in the 2000s*, Prepared for Reserve Bank of Australia, 28 July 2011, page 32; and Reserve Bank of Australia, A Comparison of the US and Australian Housing Markets: Address to the Sub-prime Mortgage Meltdown Symposium, 16 May 2008.

40 Kevin Davis, *The Australian Financial System in the 2000s*, Prepared for Reserve Bank of Australia, 28 July 2011, pages 32-33.

41 Reserve Bank of Australia, Some Effects of the Global Financial Crisis on Australian Financial Markets: Finance Professionals Forum, 31 March 2009.

42 Reserve Bank of Australia, Some Effects of the Global Financial Crisis on Australian Financial Markets: Finance Professionals Forum, 31 March 2009.

43 Kevin Davis, *The Australian Financial System in the 2000s*, Prepared for Reserve Bank of Australia, 28 July 2011, page 32.

44 Reserve Bank of Australia, *The Global Financial Crisis: Causes, Consequences and Countermeasures: Remarks to the conference: 'Australia in the global storm: A conference on the implications of the global financial crisis for Australia and its region' Victoria University*, 15 April 2009.

- Figure 3.1, that shows the closing price of the All Ordinaries, the broad Australian equities index;
- Figure 3.2, depicting the yield on ten year CGS; and
- Figure 3.3, showing the 7 year BBB corporate debt risk premium.

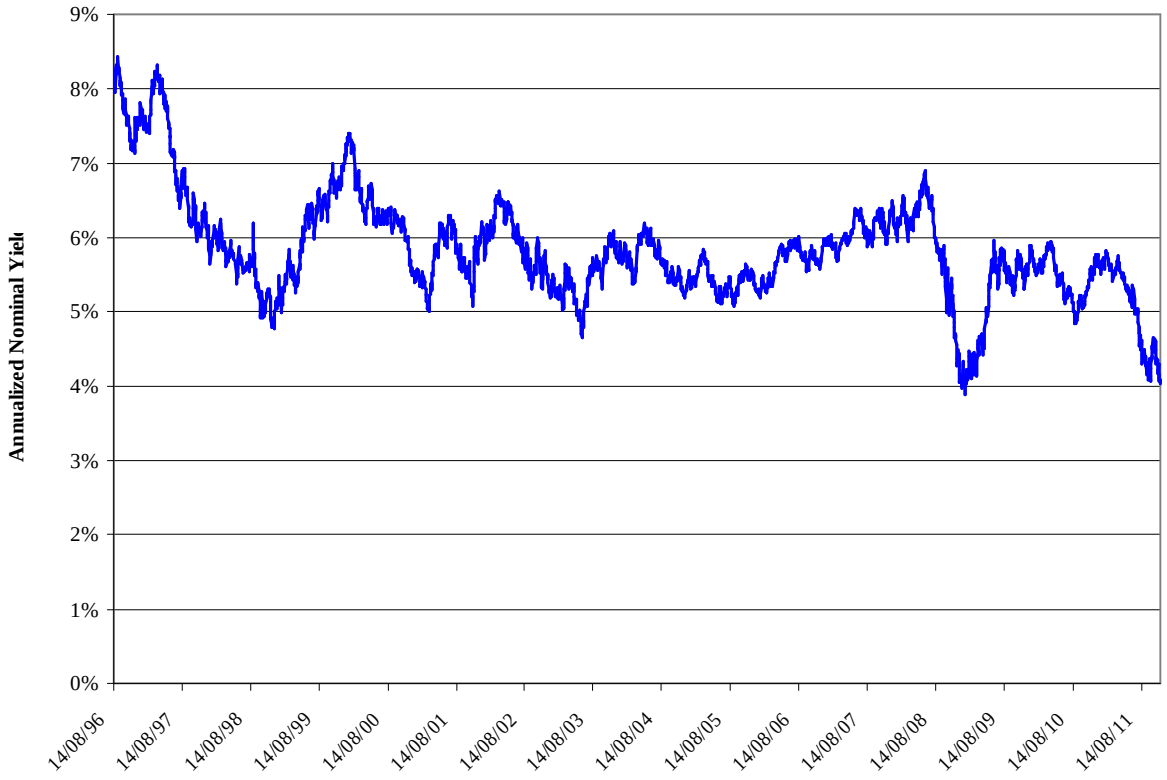
Figure 3.1
Daily Closing Price of the ASX All Ordinaries

Source: Factiva

Figure 3.1, shows the dramatic fall in the value of Australian equities from the second half of 2007. At its peak the All Ordinaries touched 6,873 in October 2007, before falling to 3,092 in March 2009, a fall of 55 per cent.

Figure 3.2, shows that since the RBA was given independence to pursue an inflation target of between two and three percent the annualised ten year CGS yield has averaged 6.5 per cent. However, following the collapse of Lehman Brothers (mid September 2008) ten year yields fell from 5.8 per cent to 3.9 per cent in mid-January 2009 (the lowest observed yield since the RBA gained monetary policy independence).

Figure 3.2
Ten Year Nominal Yield (Annualised)



Source: RBA, and NERA analysis

Figure 3.3, shows that the DRP for 7 year BBB rated Australian corporate debt increased rapidly in the second half of 2007 from a little over 100 basis points to around 350 basis points in early 2008.[45]

[45] Figure 3.3, charts the seven years BBB Australian corporate yields as published by Bloomberg. This series has been selected as it is the longest BBB bond yield that is still published by Bloomberg.

Figure 3.3
Debt Risk Premium
Australia Domestic BBB (7yr)

Source: Bloomberg L.P., RBA and NERA

4. Assessment of the AER's Proposed WACC Framework

This section assesses how the AER's proposed framework for determining the rate of return to apply to all network service providers would have operated had it been implemented from the time the current rules were put in place – being November 2006 in respect of Chapter 6A and January 2008 for Chapter 6.

4.1. Critical features of the AER's proposal

The AER's rule change proposal is that the framework for determining the rate of return for electricity transmission and distribution networks as well as gas pipelines should converge to a single regime that closely resembles that set out in chapter 6A of the NER. The key features of that framework are that:

- the rules require that the rate of return be calculated on the basis of a specified WACC formula that includes using the CAPM to determine the cost of equity;
- the values and/or methodologies for determining each of the WACC parameters would be reviewed periodically (at least every five years);
- following the review a Statement on the Cost of Capital (SoCC) would be published specifying the values, methods, and/or credit ratings to be applied in all subsequent revenue/price decisions (until superseded by a subsequent review and SoCC); and
- there would no ability on the part of either the network service providers to propose a departure from the prescribed SoCC values or methods, or for other stakeholders to submit that a departure be or not be made, or the AER allow departures from the prescribed SoCC values or methods for each WACC parameter at individual revenue/price determinations.

In assessing the strengths, weaknesses and risks of this framework it is instructive to consider how it would have operated over the last six years, being a period characterised by significant changes in financial markets. We conclude that the AER's proposed rate of return framework contains a number of fundamental weaknesses, ie:

- the framework cannot accommodate rapid changes in market conditions, such as those experienced in recent years, with the effect that the locking-in of WACC parameters once every five years would create the risk that the rate of return decisions for some NSPs would not be commensurate with the regulatory and commercial risks involved[46] and/or with the prevailing conditions in the market for funds;[47]
- unforeseen changes in the availability of data may result in prescribed methods becoming obsolete and so not practicable for application in revenue/price decisions;
- the framework contains no mechanism to enable errors to be identified and corrected, and for contentious issues to be resolved by a process of merits review; and

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[46] National Electricity Law, Part 2, clause 7A(5)

[47] Clauses 6A.6.2(j)(1)

§ the ability of the AER to bring forward the timing of the SoCC is not a practicable solution to the above issues.

The remainder of this section discusses each of these weaknesses in greater detail.

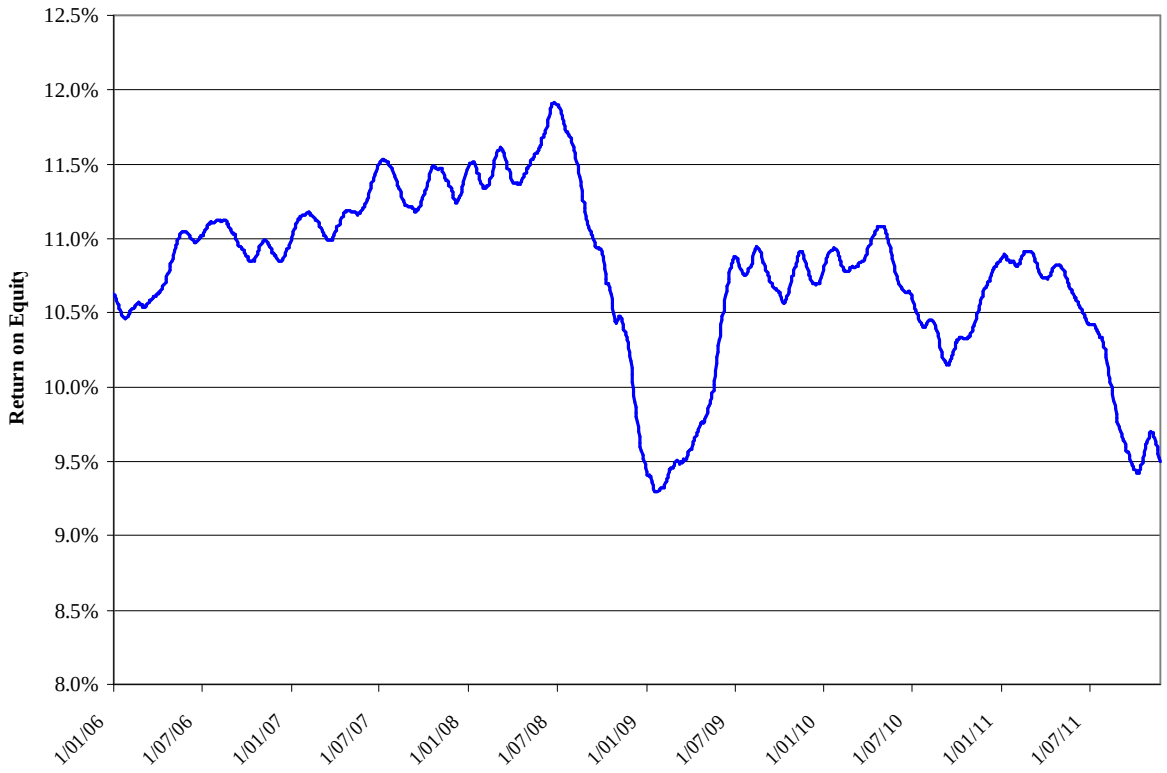
4.2. Inability to accommodate rapid changing markets

Under the AER's proposed WACC framework the estimate of the cost of equity would be set by reference to a fixed margin above the risk free rate. Using the parameter values determined in the 2009 WACC Statement that margin would be 5.2 per cent, ie:

$$k_e = r_f + b_e \times MRP$$
$$= r_f + 0.8 \times 6.5\%$$
$$= r_f + 5.2\%$$

Figure 4.1 illustrates how the nominal regulatory cost of equity estimate would have fluctuated over the past five years if it were set as a fixed margin above the risk free rate.

Figure 4.1
Return on Equity 2006-present



These data shows that prior to the collapse of the Lehman brothers in September 2008 the estimate of the cost of equity would have been over 11.5 per cent, but with this having fallen to 9.2 per cent by January 2009. In other words, at the deepest point in the first phase of the

GFC, the AER's proposed rate of return framework would have enforced a fall in the estimate of the cost of equity of over 2.3 per cent.

Applying the fixed margins of 5.2 per cent to the risk free rates prevailing in the 20 days prior to all the energy network decisions since 2006 (as a convenient proxy period) the estimate of the cost of equity would be:

- 10.89 per cent for the Roma to Brisbane Pipeline (20 December 2006);
- 11.25 per cent for the Dawson Valley Pipeline (22 August 2007);
- 11.35 per cent for SP AusNet (Transmission) (31 January 2008)
- 11.36 per cent for ElectraNet (11 April 2008);
- 11.70 per cent for GasNet (25 June 2008);
- 9.76 per cent for the NSW DNSPs, TransGrid, Transend and ActewAGL (28 April 2009);
- 11.08 per cent for the Queensland DNSPs and ETSA Utilities (4 May 2010),
- 10.66 per cent for Jemena (NSW) gas networks (11 June 2010)
- 10.36 per cent for the Victorian DNSPs (29 October 2010);
- 10.51 per cent for the APT Allgas and Envestra (Qld) and (SA) gas networks (17 June 2011); and
- 9.38 per cent for Aurora Energy and Powerlink (draft decision 29 November 2011)

This list indicates that the estimate of the cost of equity under this method would generally fall between just under 10.5 per cent and just over 11.5 per cent. The exceptions to this would have been the decisions in April 2009 and the recent draft decisions for Aurora and Powerlink. In both cases financial markets were experiencing extreme stress, in late 2008 the market was dealing with the aftermath of the collapse of Lehman Brothers and, more recently, financial markets are significantly affected by concerns associated with European sovereign debt.

In our opinion, when applied during periods of extreme uncertainty, the combination of a market risk premium determined by reference to long term historical data and a risk free rate determined by reference to present day market conditions results in a return on equity value that does not meet the overarching principle of being commensurate with the current market conditions. Rather, in such circumstances, a material increase in the present date market risk premium would be predicted. This conclusion is consistent with the observations of the RBA in its March 2009 Financial Stability Review:[48]

> The global financial system has continued to experience significant stress. … A notable feature of the current crisis has been a marked increase in the price of risk, after risk had been underpriced in many markets for a number of years. This repricing of risk has resulted in large falls in the price of many financial assets, often by considerably more than can be explained by changes in the expected underlying cash flows.

[48] RBA, Financial Stability Review, March 2009, page 1.

Similar sentiments were expressed by Professors Franks and Myers in their advice to the New Zealand Commerce Commission on whether it should change its estimate of the MRP as a result of the GFC:[49]

> Professor Myers recommends that the Commission sets a range for the MRP. The bottom of the range for the MRP should be 5%. The top of the range should be a long-term historical arithmetic average MRP over long-term government bond returns. This range for the MRP implies a range for the TAMRP. The Commission should use the top of the range for the TAMRP until the world economy returns to normalcy and stable growth… Professor Franks recommends that the Commission consider a small increase of ½% to 1% to the TAMRP estimate but it would take the form of a temporary surcharge.

We note that, as a practical matter, an alternative means of estimating the cost of equity during times of extreme market uncertainty is to set aside the current date risk free rate and instead to adopt a figure that better reflects the market conditions that gave rise to the historical average market risk premium. This was the recommendation of Professor Officer in 2009:[50]

> Ideally, as I have already indicated, one would estimate the relevant parameters of the CAPM to reflect the expected or required return on equity for the period that the regulatory rate is set. If one is prevented from doing this, either because of a constraint that an average MRP must be used or through estimation problems, then a second beset approach is to use a period that is unaffected by "aberrant market conditions". In effect, the R_f should be estimated from a period that is consistent with the MRP estimate – an 'averaging period' or period of 'equilibrium'.

The fact that the GFC caused an increase in the Australian MRP is consistent with the AER's own assessment that over the last three years the MRP has varied from:

- 6 per cent prior to 1 May 2009, which according to the AER represents the historical average MRP; to
- 6.5 per cent between the 1 May 2009 and February 2011 when, on account of the effects of the GFC as they were then interpreted, the AER raised the MRP value by 0.5 per cent in its 2009 WACC Statement; and then back to
- 6 per cent from the February 2011, when the AER concluded that the effects of the GFC had dissipated.[51]

This summary of AER decisions in relation to the MRP confirm that its own analysis of changes in that parameter over time is at odds with its statement in the context of its rule change proposal that new financial information or theory is slow to evolve. By the statements and decisions it has made during this period, the AER itself appears to accept that WACC

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[49] J. R. Franks, M. Lally and S. C. Myers, 2010, *Recommendation to the New Zealand Commerce Commission on whether or not it should change its previous estimate of the tax adjusted market risk premium as a result of the recent global financial crisis*, pages 4 and 8.

[50] Professor R. Officer, *Expert Report prepared in respect of certain matters arising from the AER's New South Wales Draft Distribution Determination 2009-10 to 2013-14*, 16 February 2009, paragraph 46.

[51] AER, Envestra Ltd Access arrangement proposal for the Qld gas network 1 July 2011- 30 June 2016: Draft decision, February 2011, page 85.

parameters can alter over relatively short periods of time in response to changing market conditions.

Notwithstanding these developments, the chapter 6A framework that the AER now proposes be adopted for network service providers generally cannot accommodate changes in market conditions of the nature and timing that have recently been experienced. In our opinion, the only mechanism that is capable of addressing such circumstances is a provision that, at each revenue or price determination, allows an assessment as to whether the SoCC values, methods and credit rates are still appropriate. That assessment must be undertaken by reference to prevailing conditions in the market for funds at the time of the determination and their effect on the rate of return required to provide the services to which the prices or charges relate.

4.3. Inability to cope with changes in available market data

The AER's proposed framework would also inhibit the adoption of alternative or augmented approaches to the measurement of WACC parameters in circumstances where there are changes to the availability of information necessary to implement a method specified in the rules/SoCC. By way of recent and relevant example, such a situation has arisen in relation to the data necessary to determine the DRP.

Chapters 6 and 6A of the NER require the DRP to be estimated on the basis of Australian corporate bond with a BBB+ credit rating and a maturity equal to that used to derive the nominal risk free rate (ie, ten years). The AER may review and alter the credit rating (ie, BBB+) or the term of the risk free rate in its WACC Statement, although it chose not to do so in its 2009 WACC Statement.

At the time the existing rules were put in place, both networks service providers and the AER could rely on two independent data sources for the specified DRP, ie, CBASpectrum and Bloomberg. However, Bloomberg ceased to publish an estimate of the Australian 10 year BBB+ rated bonds in October 2007, while CBASpectrum ceased providing estimates in 2010.[52]

Market developments during this period were themselves a contributing factor to these two independent data sources deciding to cease publication of their estimates of the current yield on Australian 10 year BBB+ rated bonds. Irrespective, the consequence has been that network service providers and the AER have had to develop new statistical techniques to estimate the DRP in the manner prescribed by the rules.

A related complexity is that very few Australian long term/low rated bonds were issued from the start of the GFC (mid 2007) until about 18 months ago (mid 2010), although a number of new, longer dated domestic corporate bond issues have occurred more recently. This seems likely to be a consequence of the increased risk aversion of investors and so a reduced appetite for investment in long dated corporate bonds. Similarly, corporate borrowers have

[52] This was communicated to the AER on 19 August 2010, see AER, *Victorian electricity distribution network service providers: Distribution determination 2011- 2015: Final decision*, October 2010, p. XXXVIII.

(understandably) responded to the increased investor risk aversion by opting for shorter dated maturity borrowings.

Importantly, one consequence of the declining amount of information and data on the DRP has been that the process of estimation using proxy data has given rise to dispute as to precisely how this should be undertaken. Such disputes have been the cause of half the WACC/tax appeals amongst the ten electricity and gas businesses that have appealed the AER's DRP decisions.[53]

4.4. Lack of a mechanism to identify and correct errors

Under the AER's proposed WACC framework, the parameter values, methods and credit ratings would be fixed by means of the SoCC, and the AER would then be prevented from being able to modify or accept any proposed modification to these parameters at the time of a revenue/price decision. Relative to the current arrangements under chapter 6 of the NER, the WACC parameters would not be a constituent decision of a revenue/price decision and so would not be subject to merits review by the Tribunal.

Without any mechanism to trigger an expert and independent review, errors in a WACC Statement would not be able to be identified and corrected. Applying this to the experience to date under the current regime, this means that the merits review proceedings brought by ETSA Utilities, Ergon Energy, and Energex on the decision by the AER to apply the WACC Statement value for the assumed utilisation of imputation credits (gamma) uncovered a number of errors in the AER's 2009 statement would not have been possible.[54]

By way of background gamma is the product of two components:

- the fraction of imputation credits created through the payment of company income tax that are assumed to be distributed to shareholders by way of franked dividends; and
- the value to shareholders from receiving one dollar of imputation credits (theta).

In its 2009 WACC Statement the AER established a value for gamma of 0.65. This was calculated as the product of a distribution rate of 100 per cent and a value for distributed credits of 0.65.

In subsequent proceedings before the Tribunal, the AER conceded that there was no empirical data capable of supporting a distribution rate higher than 70 per cent. This was the distribution rate argued by the NSPs in the appeal and was also the rate put forward in joint industry submissions during the 2009 WACC review.

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53 See Appendix A to this report.

54 The value of 'gamma' is used to determine the proportion of benchmark company income tax that should not be included in a regulated firm's annual revenue requirement. Compensation for company income tax does not need to be provided because under the Australian imputation tax system, a franking credit is provided to companies for tax paid at the corporate level. Companies can then distribute franked dividends to its shareholders. Shareholders receiving franked dividends are able to use the franking credit to offset Australian tax due on the dividend to which the credit is attached or tax due on other income or, since 1 July 2000, credits can be used to produce a rebate from the Australian Tax Office (ATO).

The Tribunal also found further error in the AER's determination of theta. The AER's estimate of theta of 0.65 was the mid point of two estimates:

- 0.57, inferred from 2006 dividend drop-off study by Beggs and Skeels;[55] and
- 0.74, inferred from a 2008 paper by Handley and Maheswaran using from tax statistics.[56]

A matter of significant contention between the AER and network service providers in the course of preparing the WACC Statement was the relevance and weight that should be put on the use of tax statistics. Advisors to the energy networks argued that no weight should be put on tax statistics because:[57]

> In summary, three expert reports have reached the same conclusion on this point – that Associate Professor Handley is mistaken to suggest that redemption rates [sourced from tax statistics] provide point estimates or even "upper bounds" for theta and that the AER was wrong to rely on that advice.

The Tribunal found that the AER had made an error of logic in its use of the Handley and Maheswaran paper, stating that:[58]

> The AER accepted that utilisation rates derived from tax statistics provide an upper bound on possible values of theta. …. However, its relevance could only be related to the fact that it was an upper bound. No estimate that exceeded a genuine upper bound could be correct. Thus the appropriate way to use the tax statistics figure was as a check.

In other words, the Tribunal found that tax statistics should not be used to estimate theta but should only be used to check whether the estimated value was too high.

Furthermore, the Tribunal also directed the AER to commission a 'state of the art' dividend drop-off study from Strategic Finance Group (SFG). This direction followed the AER's continued insistence that no weight should be placed on any study other than that by Beggs and Skeels in 2006.

The Tribunal accepted the results of the new study:[59]

> The Tribunal is satisfied that SFG's March 2011 report is the best dividend drop-off study currently available for the purpose of estimating gamma in terms of the Rules. Its estimate of a value of 0.35 for theta should be accepted as the best estimate using this approach. In particular, the Tribunal cannot accept the submission of the AER that either minor issues in the construction of the database or multicollinearity argue

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55 D. Beggs and C. L. Skeels, 'Market arbitrage of cash dividends and franking credits', *The Economic Record,* vol.82, no.258, September 2006.

56 J. C. Handley and K. Maheswaran, 'A measure of the efficacy of the Australian imputation tax system', *The Economic Record*, vol.84, no.264, March 2008.

57 Network Industry Submission, *AER Proposed Determination – Review of the Weighted Average Cost of Capital (WACC) parameters for electricity transmission and distribution*, February 2009, page 145.

58 Application by Energex Limited (No 2) [2010] ACompT 7, paragraph 91.

59 Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9, paragraphs 29-30

> for giving the SFG study less weight and the Beggs and Skeels study some weight. The Beggs and Skeels study, despite not being subjected to anything like the same level scrutiny, is known to suffer by comparison with the SFG study on those and other grounds.
>
> Moreover, the fact that in its earlier reasons the Tribunal found no error in the AER having relied on the Beggs and Skeels study is not to the point. The proceedings since then have been largely designed to render that study, along with the earlier SFG study, obsolete for the purpose of setting a value for gamma – and have done so.

The outcome of the appeals before the Tribunal on gamma was to identify a number of errors in the gamma value contained in the 2009 WACC Statement, ie:

- in the assumption of 100 per cent distribution rate, when instead a 70 per cent rate was substituted by the Tribunal;
- in the AER's reliance on tax statistics as an estimate of theta, when this source should only be used a check of the estimated theta value; and
- in the AER's rejection of other dividend drop-off studies and its sole reliance on the estimated from the Beggs and Skeels 2006 study.

The AER has since adopted the corrected gamma value in its gas pipeline decisions, and has the ability to adopt the correct rate in future chapter 6 (DNSP) decisions (and has indeed done so in its recent draft decision for Aurora[60]). For DNSP's, this ability arises through the decision open to the AER not to apply the WACC Statement gamma value. However, the AER has no ability to correct the gamma value for chapter 6A (TNSP) decisions, since the rules do not provide for a 'safety valve' mechanism by which errors can be corrected.[61]

Without review by the Tribunal it is not clear that the errors in the gamma value in the WACC Statement would have been properly investigated and corrected.

The WACC framework that the AER is now proposing to apply to all electricity and gas network service providers has the effect of removing the ability for an NSP to seek merits review of any WACC parameter values, methods and credit ratings. It thereby omits an important feature of the current arrangements that has been able to identify and correct errors made by the AER. It is difficult to see how the removal of an error correction mechanism, particularly in the context of errors having been known to be made, could be consistent with contributing to the achievement of either the NEO or the national gas objective.[62]

4.5. Practicability of bringing the SoCC forward

In explaining the basis for its rate of return rule change proposals the AER contends that the option of bringing forward the timing of a future SoCC amounts to a process that would be

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60 AER, *Aurora Energy Pty Ltd 2012-13 to 2016-17: Draft decision*, 29 November 2011, page 27.

61 A gamma value of 0.65 has recently been applied in Powerlink's draft decision, see, AER, *Powerlink Transmission determination 2012-13 to 2016-17: Draft decision*, 29 November 2011, page 33.

62 National Gas Law, section 23.

capable of dealing with unanticipated changes in financial market conditions. In our opinion, such a process is not capable of effectively addressing this need.

The SoCC process takes the best part of two years from the point in time at which significant changes in market conditions were recognised through to their potential application in network pricing decisions. This is because time is needed for:

- the problem to be recognised and for the AER to develop and publish an issues paper;
- the SoCC review to be completed, noting that the 2009 review took approximately 9 months;[63] and
- the new WACC values, methods and credit ratings to be applied to a electricity network or pipeline decision.[64]

A delay of close to two years between a problem being identified and the application of a new WACC value, method and credit rating is not capable of dealing effectively with the rapidity and severity of changes in financial market conditions experienced over the last few years. For example, the failure of Lehman Brothers occurred just prior to the publication of the draft decisions for the NSW DNSPs, TransGrid, Transend and ActewAGL, and six months before the final decision.

In any case, the option of bringing forward an AER review and so the publication of a new SoCC is not a practicable solution for identifying and correcting errors made by the AER.

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[63] We note that the AER's rule change proposal also seeks to increase the timeframe for conducting the WACC review from 80 to 100 business days.

[64] We note that the SoCC parameters will only apply to revenue/price proposals submitted after the SoCC is published. Furthermore, the revenue/price proposal is submitted at least 12 months before the start of the regulatory period.

5. Conclusion

The AER's proposal to move TNSPs, DNSPs and gas pipelines to a common framework for determining the rate of return that, in essence, reflects that already established in chapter 6A of the NER involves a substantial risk of setting a WACC that is not commensurate with prevailing conditions in the market for funds and/or involves known error. Locking-in the WACC parameter values, methods and credit ratings gives rise to the risks that:

- the pre-specified WACC parameters are no longer appropriate due to changes in financial market conditions subsequent to the SoCC;
- the SoCC will specify methods dependent on data or information that subsequently ceases to exist; and
- the SoCC contains errors that cannot be adequately addressed without merits review.

In our opinion, the experience since the current rules were put in place demonstrates that any WACC framework must contain a mechanism that is able to be invoked by any party in relation to any individual decision in order to ensure that rate of return is be commensurate with the prevailing conditions in the market for funds and any effect those conditions may have on the returns required to provide the services to which the prices or charges relate.

With the benefit in hindsight of financial market developments over the past five years, the absence of any credible safety valve mechanisms amounts to a fundamental design flaw in both the chapter 6A provisions of the current NER and the framework that is now proposed by the AER. That design flaw would appear to put the chapter 6A arrangements at odds with both the revenue and pricing principles as well as with the requirement that the SoCC process delivers outcomes that are consistent with prevailing conditions in the market for funds.

The AER's proposal also removes an important feature of the current arrangements applying to distributors and gas pipelines that has been able to identify and correct errors made by the AER. It is difficult to see how the removal of an error correction mechanism, particularly in the context of errors having been known to be made, could be consistent with contributing to the achievement of either the national electricity or gas objectives.

The AER's contention that a process involving periodic review of rate of return parameter values or methodologies and so the establishment of an updated SoCC could be brought forward from its 5-year cycle is not adequate to deal with changing market circumstances.

Appendix A – WACC/Tax Related Appeals

Table A.1 lists the WACC and tax related matters that have been appealed to the Australian Competition Tribunal.

Table A.1
Recent AER WACC Decisions

Decision	Company	Issue	Outcome
NSW/ACT Distribution (2009)	Country Energy	Averaging period	Varied
		Debt risk premium	Rejected
NSW/ACT Distribution (2009)	EnergyAustralia	Averaging period	Varied
		Debt risk premium	Rejected
NSW/ACT Distribution (2009)	Integral Energy	Averaging period	Varied
NSW/ACT Transmission (2009)	TransGrid	Averaging period	Varied
		Debt risk premium	Rejected
TAS Transmission (2009)	Transend	Averaging period	Varied
		Debt risk premium	Rejected
Gas Access Arrangement (2010)	ActewAGL	Debt risk premium	Varied
QLD Distribution (2011)	Energex	Gamma	Varied
QLD Distribution (2011)	Ergon	Gamma	Varied
SA Distribution (2011)	ETSA Utilities	Gamma	Varied
Gas Access Arrangement (2011)	Jemena (NSW) Gas	Gamma	Varied
		Debt risk premium	Varied
Gas Access Arrangement (2012)	APT Allgas	Debt risk premium	Pending
Gas Access Arrangement (2012)	Envestra (QLD)	Debt risk premium	Pending
		Market risk premium	Pending
Gas Access Arrangement (2012)	Envestra (SA)	Debt risk premium	Pending
		Market risk premium	Pending

Appendix B – Authors

Jeff Balchin is a Principal in the PwC Economics and Policy team, previously being a director of the Allen Consulting Group and prior to that in various positions in the Commonwealth Government. Jeff has over 17 years of experience in relation to economic regulation issues across the electricity, gas, airports, ports and water industries in Australia and New Zealand. He has been an adviser to governments, regulators, customers and infrastructure providers on the design, economic interpretation and application of economic regulation, which has included key roles in many of the landmark matters.

Catherine Dermody is a Partner in Gilbert + Tobin's Competition & Regulation group. Catherine provides advice in relation to electricity, gas and telecommunications regulation, and has advised both regulators and regulated entities in regulatory determination processes and merits reviews of those processes. Prior to working at Gilbert + Tobin, Catherine spent six years at the Australian Competition and Consumer Commission involved in infrastructure regulation and two years as a legal advisor at the Office of Gas and Electricity Markets in the United Kingdom.

Greg Houston is a Director of NERA Economic Consulting, based in Sydney. Greg has twenty five years' experience in the economic analysis of markets and the provision of expert advice in litigation, business strategy, and policy contexts. Greg's work in the Asia Pacific region principally revolves around the activities of the enforcement and regulatory agencies responsible for competition, economic regulation and securities market matters, many of whom also number amongst his clients. In December 2005 Greg was appointed by the Hon Ian Macfarlane, then Minister for Industry, Tourism and Resources, to an Expert Panel to advise the Ministerial Council on Energy on achieving harmonisation of the approach to regulation of electricity and gas transmission and distribution infrastructure in Australia. During the 2005-06 period Greg also advised both the AEMC and the Ministerial Council on Energy on the development of the rules now applying to both the transmission and distribution network service providers.

Brendan Quach has eleven years experience as an economist, specialising in network economics, and competition policy in Australia, New Zealand and Asia Pacific. Brendan specialises in regulatory and financial modelling and the cost of capital for network businesses. Brendan was involved with the initial development of the chapter 6A provisions of the national electricity rules.

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Attachment B

Joint Report

Gilbert + Tobin Lawyers
NERA Economic Consulting and
pwc

Design of Capital Expenditure Incentive Arrangements

Design of Capital Expenditure Incentive Arrangements

A joint report for the
Energy Networks Association

8 December 2011

Project Team

Jeff Balchin, Principal of PwC Australia

Catherine Dermody, Partner of Gilbert + Tobin

Greg Houston, Director of NERA Economic Consulting

Contents

1. Introduction

This report has been jointly prepared by Jeff Balchin, Catherine Dermody and Greg Houston at the request of the Energy Networks Association (**ENA**), for submission to the Australian Energy Market Commission (**AEMC**). Its subject is the expenditure forecast elements of the rule change proposal put forward in September 2011 by the Australian Energy Regulator (**AER**) for decision by the AEMC. It is one of three separate joint reports prepared for the ENA, each addressing a number of issues related to the rule changes that the AER has proposed to change the incentives of Network Service Providers (**NSP**) with respect to capital expenditure incentives. Our specific terms of reference are as follows:

"Prepare a joint expert panel external report that:

1. refers to/develops principles as to the appropriate level of prescription/level of detail as to what should be in the rules and what should be developed as AER guidelines;
2. demonstrates the implications of the AER proposed scheme for NSP capex incentives, assessed against the existing rules criteria for efficiency incentive scheme design;
3. proposes or discusses potential additions/refinements to either the Ch 6 and/or Ch 6A criteria as the basis guiding the development of any capex incentive scheme; and
4. sets out a 'straw man' alternative capex incentive scheme that would correct the problems with the AER scheme (e.g. absence of symmetry, not continuous from one year to the next) and meet the existing Rules criteria, while noting that implementation details would need to be developed."

1.1. Authors and expertise

The authors of this report are: Jeff Balchin, Principal of PwC Australia; Catherine Dermody, Partner of Gilbert + Tobin; and Greg Houston, Director of NERA Economic Consulting. Greg and Jeff are both economists with substantial expertise in the economic regulation of network infrastructure services, while Catherine is a regulatory lawyer with deep expertise in the energy sector. A short biography for each of Jeff, Catherine and Greg is attached as appendix A.

The authors also wish to acknowledge the substantial contributions of Victoria Mollard, Analyst, NERA Economic Consulting, in the preparation of this report.

1.2. Our approach to the terms of reference

By way of context, we make the following observations about how we interpret the terms of reference set out above in light of the AER's proposal.

First, the AER has proposed that the rules include the details of operational elements of the capital expenditure incentive scheme into specific rules provisions. This element of the proposal contrasts with the existing approach for creating financial incentives for operating expenditure and service performance, where the important criteria for the development of the schemes are prescribed in the rules, but where the AER is required to develop the operational detail of the schemes through a separate process and to set out the detail in a guideline.

Elements of these schemes are also able to be specified in specific NSP determinations, and thus able to be varied across businesses. Consequently, an important question is where in the hierarchy of regulatory instruments – the rules, a guideline and/or individual price/revenue determinations – that a capital expenditure incentive scheme should be set out. This is the focus of Task 1 of our terms of reference.

Secondly, a conclusion of Task 1 above is that the detail of the capital expenditure incentive scheme should be given effect though a guideline and with firm-specific matters addressed in individual price/revenue determinations, mirroring the treatment of operating expenditure and service performance incentive arrangements. Moreover, we also observe that for distribution the AER already has the power to introduce an 'efficiency benefit sharing scheme' for capital expenditure and thereby enhance the incentives for capital expenditure efficiency,[1] but has chosen not to do so.[2] These findings and observations raise the question of whether the criteria for the design of an 'efficiency benefit sharing scheme' for capital expenditure in Chapter 6 provide appropriate guidance for the development of capital expenditure incentives, or whether refinements are warranted. This in turn invites a discussion of the conceptual considerations in the design of incentive schemes.

Thirdly, we then address the details of the AER's proposed scheme and analyse whether it meets the criteria that would apply to an efficiency benefit sharing scheme if the AER had proposed its current scheme under the existing rule provisions. We also address whether these conclusions would be altered if our recommended modifications to these criteria were adopted. We observe that the AER's proposed scheme is a very simple in its operation – that is, simply to scale down the actual capital expenditure by a factor where the actual amount exceeds the forecast for a regulatory period (where both are calculated as the simple sum). However, an important matter is to understand the incentives that are created by this simple scheme, and to test whether the scheme in fact meets appropriate criteria for incentive scheme design, and indeed remedies the perceived deficiencies that the AER has identified with the current capital expenditure incentive arrangements. This is the focus of Task 3 of our terms of reference.

Fourthly, the findings from Task 3 are that the AER's proposed capital expenditure incentive scheme does not meet appropriate criteria for the design of incentive schemes and as such could not have been accepted under the existing rules. We also observe that the AER's proposed scheme does not address the problems that the AER has identified and also gives rise to a number of other perverse incentives. This raises an important question, namely what an incentive scheme that does meet those criteria could look like.

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[1] The AER's proposed capital expenditure incentive scheme would operate by varying the amount of capital expenditure that was to be included in the regulatory asset base at the end of a regulatory period. This contrasts to an 'efficiency benefit sharing scheme', where the incentives are provided by rolling in all capital expenditure, but adding an increment or decrement to target revenue in the following regulatory period. However, it is possible to provide identical incentives irrespective of whether this is achieved by varying the roll in rule, or by providing an increment or decrement to the next period revenue. This is discussed further in section 5.2.

[2] This power exists under the same provisions that give effect to the efficiency benefit sharing schemes – the development of an incentive scheme for operating expenditure was mandatory, but was discretionary for capital expenditure and electricity losses.

Our conclusions from Task 1 were that the detail of the capital expenditure incentive scheme should be given effect though a guideline and with firm-specific matters addressed in individual price/revenue determinations. Accordingly, it would be premature to set out a fully developed incentive scheme at this stage. However, in order to provide a focus for discussion, we have described the key features of a scheme that would meet the criteria in the rules and set out the implementation issues that would need to be addressed.

1.3. Structure of the remainder of the report

The remainder of this report is structured as follows.

- Section 2 describes the AER's proposed rule changes in relation to the capital expenditure incentive arrangements in order to provide context for the analysis;
- Section 3 addresses the AER's proposal to set out the detailed operational requirements of its proposed scheme in the rules, addressing the issue of the most appropriate use of the different regulatory instruments (that is, the rules, guidelines and individual price/revenue determinations);
- Section 4 addresses the question of what is appropriate guidance in the rules for the design of capital expenditure efficiency arrangements, commencing with the current criteria in Chapter 6 under which a scheme could have been implemented and asking whether refinements are possible;
- Section 5 assesses the AER's proposed scheme against the criteria developed above, including whether such a scheme would have met the criteria required of a capital expenditure 'efficiency benefit sharing scheme'; and
- Section 6 then sets out a 'straw man' for a capital expenditure 'efficiency benefit sharing scheme' that could meet the criteria developed in section 4.

Appendix A provides a short biography for each of the authors of this report.

2. AER's proposed capital expenditure incentive scheme

2.1. AER proposal

Relevantly for the purposes of this report the AER has proposed that the rules for the roll-in of capital expenditure be changed so that NSPs be permitted to recover in the regulatory asset base (RAB) at the beginning of a regulatory control period capital expenditure of an amount:

- equal to actual capital expenditure in the previous regulatory control period if expenditure is less than the forecast amount specified in the determination applying to that regulatory control period, or otherwise
- equal to the forecast of capital expenditure specified in the determination applying to that regulatory control period plus 60 per cent of the overspend.[3]

The AER has also proposed retaining the flexibility for distribution to decide whether or not depreciation should also be recalculated to reflect actual expenditure, and has proposed that this flexibility be extended to transmission. Some of the details of the AER scheme are not fully articulated in its rule proposal, which is discussed further in this report.

The AER has noted that the strength of the incentives to minimise capital expenditure stem from the extent to which firms are guaranteed the actual recovery of their costs, and that a number of aspects of the regulatory regime in combination affect the incentives for capital incentives, including:[4]

- whether the RAB is periodically 'optimised' or rolled forward, and if the latter, whether the forecast or actual capital expenditure is included in the RAB;
- whether any adjustments are made to the revenue requirement where forecast and actual capital expenditure differ; and
- whether the regulatory WACC (and other payments received by the owner) are higher or lower than the true values.

The AER has argued that the current rules do not provide sufficient incentive to ensure that only efficient investment occurs. However, many of its observations are directed to a narrower concern; namely that the rules do not require the NSPs to restrict expenditure to the forecast that was set at the previous review. For example:[5]

> NSPs are not required to restrict expenditure in order to remain within the capex forecast set at the previous determination.

The AER observes that the penalty that a NSP incurs from undertaking an additional unit of capital expenditure declines during the course of the regulatory period, from about 40 per cent of the expenditure in the first year of the regulatory period to zero in the last year,

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[3] The AER Rule Proposal also seeks to amend the operation of the Rules in relation to the roll-in of related party margins. This report does not address that aspect of the AER Rule Proposal.

[4] AER, Rule Proposal, pp.37-38.

[5] AER, Rule Proposal, p.38.

provided that the regulatory and true WACC are the same. It then contends that an incentive to overspend in the later years may be created if the regulatory WACC is materially higher than the true WACC.

2.2. Our views on the rationale for change

2.2.1. Factors that affect the incentive for capital expenditure

We agree with the AER that the incentive for NSPs to minimise their capital expenditure depends on the extent to which recovery of actual expenditure is guaranteed. Incentive arrangements operate by exposing NSPs to a share of the societal benefit or detriment from its actions, which for expenditure implies bearing or retaining a share of any marginal increase or decrease in expenditure. The share of societal benefit or detriment that is borne by the NSP defines the 'power' of the incentive scheme.

We also agree with the AER's observation that the incentive on the NSPs with respect to capital expenditure depends upon the combination of how the RAB is determined and how the NSPs' prices are determined – the latter of which is affected by whether the NSP operates under a price/revenue cap for a defined period and whether an adjustment is made to the revenue requirements when setting that cap to reflect the performance in a previous period (that is, an efficiency benefit sharing scheme). We would further observe that if the intention is to enhance the incentives for NSPs to minimise capital expenditure beyond what results from applying a price/revenue cap, then making an adjustment to the rolled-forward RAB or an adjustment to the revenue requirements are substitute mechanisms for enhancing those incentives. That is:

- if the RAB is rolled forward using actual capital expenditure (as at present), then the desired incentive for capital expenditure may be created through making an increment or decrement to the revenue requirement; and
- if the formula for calculating the revenue requirement is held fixed, then the same incentive for capital expenditure could be achieved through an adjustment to the formula for updating the RAB.

It follows that there is no problem in principle with rolling forward the RAB to reflect actual expenditure – if this practice is considered to provide inappropriate incentives, then an adjustment can be made to how the target revenue is calculated to provide the desired incentives.

2.2.2. Has the AER targeted the correct objective?

While we agree with how the AER has characterised the role of incentives, we do not consider that the objective that appeared to guide the AER's detailed design of its scheme is appropriate.

As noted above, the AER discussion of its proposed capital expenditure incentive scheme provides different descriptions of the perceived deficiencies in the current arrangements that its scheme attempts to address (the objective of its scheme being to address these deficiencies). The alternative expressions are as follows:

1. The objective is to ensure that the NSPs have an incentive to *minimise capital expenditure*; and
2. The objective is to ensure that the NSPs have an incentive to spend *no more than the expenditure forecast* that was adopted at the previous review.

The first of these objectives is consistent with well-designed incentive regulation, and with the NEO and Revenue and Pricing Principles. In particular, economic efficiency is advanced – along with the interests of customers – if expenditure is minimised, for a given level of service performance. Thus, efficiency is advanced if a business that is spending less than the regulatory allowance manages to contain expenditure even further. Equally, efficiency is also advanced if a business that is already spending more than the regulatory allowance undertakes measures to restrain more than it otherwise might expenditure that is necessary to meet its service obligations.

In contrast, designing an incentive scheme to encourage NSPs to spend no more than the regulatory forecast at the previous price/revenue review is not an objective that would be likely to best promote the NEO and Revenue and Pricing Principles. Rather, this objective places an unnecessary degree of reliance upon the regulatory allowance, for two reasons.

First, *even if* the AER's forecast of expenditure was the best possible forecast of the future efficient level of expenditure at the time it was made, it is inevitable that the efficient level of expenditure in a future period will change from the forecast as numerous events intercede and new information becomes available (for example: outturn demand is different to forecast or additional information on the condition of assets is obtained; up-to-date and more detailed information is generated on projects as they move closer to implementation). Thus, the expenditure forecast may well turn out to be materially different from that which transpires as the efficient level, in which case attempting to promote that level of expenditure would be in direct conflict with the NEO. This is particularly so in relation to the later periods of the regulatory control period – where the forecast was determined up to four or five years previously.

Secondly, more generally we note that the underlying philosophy of incentive regulation – which is embedded in various aspects of the regulatory regime for NSPs – is premised on the observation that the regulator does not and cannot know the efficient level of expenditure. Thus, while an estimate of efficient future expenditure levels is required in order to set price levels, incentive regulation works by setting financial incentives so that NSPs reveal the efficient level of expenditure *through their actions*, which includes responding efficiently to changes in expenditure requirements as discussed above. It follows that implementing an incentive scheme that attempts to encourage NSPs to spend the forecast that was approved by the regulator at the previous price review is assuming a degree of knowledge on the part of the regulator that, when designing incentive regulation schemes, is generally assumed not to exist.

A consequence of the AER's focus on designing a scheme to encourage spending in line with the AER's forecasts rather than to minimise expenditure (for a given level of service performance) is that it has proposed an asymmetric scheme, so that a penalty is only applied if expenditure exceeds the regulatory forecast but no benefit is received for the reverse case. This implies in turn that the incentive scheme will only encourage improvements by part of the population of NSPs, and as a consequence not deliver the extent of efficiency

improvements that are possible. This issue is returned to in our detailed discussion of the AER's proposed scheme in section 5.

2.2.3. Incentive problems with the current regime

We agree with the AER that the incentive to minimise capital expenditure under the current regimes for capital expenditure for distribution and transmission declines over the course of the regulatory period. In addition, the NSPs are financially indifferent to the level of expenditure in the last year of the regulatory period, assuming that the regulatory and true WACC are the same and that there are no cash flow constraints to the business and putting aside the effect of other regulatory requirements (such as the requirement for NSPs to demonstrate the efficiency of augmentation projects that exceed a threshold).

We further observe that this declining incentive power for capital expenditure has a number of implications.

- first, the payoff to NSPs from efficiency gains in capital projects diminishes over the period;
- secondly, an incentive is created to change the pattern of expenditure over the course of the regulatory period, deferring expenditure from early in the period to late in the period; and
- thirdly, as the incentive power with respect to operating expenditure is approximately constant over the period, an incentive is created for capital expenditure to be substituted for operating expenditure late in the regulatory period.

In addition to these factors, the fact that the AER (for distribution) and the Rules (for transmission) have required regulatory depreciation to be recalculated to reflect the actual pattern of expenditure, in turn has meant that the incentive power with respect to capital projects differs depending on the life of the relevant project.

These observations are consistent with our quantitative assessment of the incentive power of the current scheme that is set out in Table 2.1. This table sets out the penalty to a NSP from a marginal increase (reward for a marginal reduction) in capital expenditure over the regulatory period according to the year in which the expenditure is undertaken and according to the useful life of the asset in question.[6] We also note for completeness that the AER has the discretion to exclude depreciation from the capital expenditure incentive scheme for distribution, and has planned to extend this flexibility to transmission.[7] Accordingly, Table

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[6] This modelling takes account of the AER's standard calculations as reflected in its 'post tax revenue model'. In particular, we have assumed that the capital expenditure that is undertaken within the year has half a year of return applied to it (consistent with the manner in which forward looking revenues are set) in order to place that expenditure in end of year dollar terms. This implies that where additional expenditure is undertaken in year 1 (and on average, it is undertaken in the mid-point of the year), the NSP is deprived of 4 years of return, the first half a year being recovered through the half WACC factor. We have also assumed that depreciation on the capital expenditure for a given year commences in the year following that expenditure, again reflecting the AER's standard approach when setting forward looking revenue requirements. Lastly, we have also taken account of the fact that the RAB is escalated for inflation, so that the amount that is actually rolled into the RAB will be both written down for depreciation and indexed for inflation.

[7] 'Excluding depreciation from the capital expenditure incentive scheme' refers to the penalty or reward to an NSP no including an element that reflects a change in regulatory depreciation. This is achieved by rolling forward the RAB at the end of the regulatory period by a fixed figure for regulatory depreciation (that is, one that reflects the forecast of

2.1 also shows what the reward (penalty) would be for a change in capital expenditure if depreciation was excluded.

Table 2.1
Incentive power by life of project and year in regulatory period

	Current Regulatory Period				
Life of Asset	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
7 years	67.7%	53.8%	38.0%	20.1%	0.0%
20 years	39.7%	31.2%	21.9%	11.5%	0.0%
40 years	32.1%	25.2%	17.5%	9.1%	0.0%
Depreciation excluded	24.6%	19.1%	13.2%	6.8%	0.0%

Note: This assumes a WACC of 10% and inflation of 2.5%.

As this table shows, where a regulated entity saves (spends) a marginal unit of capital expenditure in the first year of the regulatory period, the it retains 67.7 per cent of that saving if the asset base a seven year life, but less than half of that if the asset life is 40 years. Moreover, consistent with the previous discussion, the share of the benefit (cost) that is retained (borne) by the NSP declines substantially over the regulatory period, with the entity financially indifferent as to the level of expenditure in the last year, provided that the assumptions set out above are met. This table also shows that if depreciation is removed from the capital expenditure scheme then the incentive power of the scheme would fall in all years except the last, although the rate of decline in the incentive would be moderated and the difference in incentive rates across assets would fall away.

We note that the AER has observed that if the regulated WACC exceeds the true WACC for the NSP then the current incentive arrangements would provide an incentive to spend more in the final year of the regulatory period, rather than merely being financially indifferent as to the level of expenditure. The AER has undertaken a number of simulations of this matter, with the simulation that it summarised showing that the NSP could receive payments equal to 26 per cent more than the initial cost of the asset (this example assumed that the true WACC was 300 basis points lower than the regulatory WACC).

With respect to the AER's argument on this matter, our view is that the AER's analysis overstates the potential for NSPs to have an incentive to *increase* their level of expenditure in the final years of the regulatory period (that is, rather than merely being financially indifferent to that level of expenditure).

In particular, the reward that an NSP would earn from increased capital expenditure would depend on the regulatory WACC that is expected to be applied for the next regulatory period and in the regulatory periods thereafter (although near term returns are always relatively more

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capital expenditure), rather than recalculating the regulatory depreciation allowance to reflect the actual level and mix of expenditure.

important). The prevailing regulatory WACC would never feature in an NSP's analysis as it would never be applied to a marginal unit of capital expenditure.

This distinction between the prevailing regulatory WACC and the expected future regulatory WACCs is important at the present time. In another paper, we have noted that a large contributor to perceptions that the cost of debt element of the regulatory WACC currently is higher than the true cost of funds stems from the practice of providing an allowance for the cost of debt that reflects the spot rate, rather than an allowance that reflects the embedded cost. Over the long term, there is no reason to expect that one method will deliver a higher allowance for the cost of debt than another, although divergences are inevitable in the short term, and with the spot rates currently higher than embedded rates. Moreover, we also note that while there is evidence that the recent regulatory allowances for the cost of debt may exceed embedded rates and possibly also prevailing spot rates, there is less evidence that the allowance for the cost of equity has followed market requirements, and indeed the potential exists that current regulatory allowances materially understate the cost of equity funds.

3. Role of the rules, guidelines and determinations when giving effect to a capital expenditure incentive scheme

3.1. Introduction

In this section we present an analytical framework for assessing the appropriate split between codifying matters in the Rules and providing discretion for the AER. We identify factors that, if present, suggest that a highly prescribed rule may be appropriate, and those which suggest that a less prescribed rule would be appropriate, but with adequate guidance given to ensure policy objectives are met.

While the actual proposed amendments to the Rules that would provide for the AER's proposed capital incentive scheme are small in terms of the number of words, it is actually a highly prescribed scheme. In particular, the fixing in the Rules of the amount of 60 per cent of the total capital expenditure that exceeds the total forecast capital expenditure as the amount that may be rolled into the RAB inappropriately restricts the AER in applying an incentive scheme that will likely need to be refined over time and also a scheme that should be appropriately tailored between types of service providers (distribution / transmission) and also perhaps as between different service providers of the same type.

The AER's proposal in relation to the capital incentive scheme can be contrasted with the AER's proposed amendments that would permit the AER to develop "other" incentive schemes. The broad scope of the amendment relating to "other" incentive schemes would in effect place the AER in a position to determine important matters of policy, which is properly the domain of the Standing Council on Energy and Resources (**SCER**) and the AEMC (as it may be guided by any relevant policy statements).

3.2. Policy, rule making and rule enforcement

There is a clear separation between the roles of policy development, rule-making, and rule-enforcing in the current framework. A short background on this separation and how it was developed is set out below.

3.2.1. Policy

The Ministerial Council on Energy (**MCE**) was established by the Council of Australian Governments (**CoAG**) in June 2001 with the following objectives:

- to provide national oversight and coordination of policy development to address the opportunities and challenges facing Australia's energy sector into the future; and
- to provide national leadership so that consideration of broader convergence issues and environmental impacts are effectively integrated into energy sector decision making.

From 1 July 2011, the MCE amalgamated with the Ministerial Council on Mineral and Petroleum Resources, to become the SCER.[8] The SCER has the following scope:

- facilitating national oversight and coordination of governance, policy development and program management to address opportunities and challenges facing Australia's energy and resources sectors into the future;
- providing national leadership on key strategic issues and effectively integrating these strategic priorities into Government decision-making in relation to the energy and resources sectors; and
- enhancing national consistency between regulatory frameworks to reduce costs and improve the operation of the energy and resources sectors.[9]

The membership of the SCER comprises Commonwealth, state and territory and New Zealand Ministers with responsibility for energy and resource matters.

3.2.2. Rule-making and rule enforcement

In the MCE's report to the CoAG in 2003, the MCE recommended a reform package to CoAG that included the establishment of two new statutory commissions:

- the AEMC, with responsibility for rule-making and market development; and
- the AER, with responsibility for market regulation.

The MCE report noted as follows:[10]

> Sound economic regulation requires expertise, independence from commercial interests, and close consultation with affected parties. The processes must be made more efficient and streamlined, responsive to market developments, and occur within a clear framework of government policy. Regulation should be nationally uniform or consistent, as appropriate, to maximise competition and reduce the cost to business of operating across the markets.
>
> The MCE proposes the establishment of two new statutory bodies to undertake these tasks. One body will focus on rule-making and market development, the other on network access regulation and market rule enforcement.

In its response to the report of the Expert Panel on Energy Access Pricing [11] in 2006 the MCE noted the importance of the framework within which the AER performs economic regulation being clear, with the scope of discretions set out.[12]

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8 Energy and Resources Ministers' Meeting: Communiqué, Perth, 10 June 2011 (available at: http://www.mce.gov.au/about/default.html, accessed 16 November 2011).

9 Council of Australian Governments, Terms of Reference, (available at: http://www.mce.gov.au/about/default.html, accessed 16 November 2011).

10 Ministerial Council on Energy, *Reform of Energy Markets: Report to the Council of Australian Governments*, 11 December 2003, p 8.

11 Expert Panel on Energy Access Pricing, *Report to the Ministerial Council on Energy*, April 2006.

> It is important that the framework within which the AER will undertake its economic regulation provides it with clear powers and guidance to make efficient decisions from the perspective of society as a whole. The AER's powers need to be clear, its scope of discretions set out, and the timeliness and transparency of its processes guaranteed. The AER must be accountable for its decisions and the opportunity must be provided to regulated service providers for the correction of potential regulatory error through review mechanisms.

The MCE also highlighted the importance of consistency and predictability of decisions made by reference to established principles.[13]

> Equally important is the predictability of those decisions – that is, the development of an approach that gives energy users and investors in transmission and distribution infrastructure confidence that access and pricing outcomes will be guided by known principles that are applied in a consistent manner.

In making rules the AEMC is subject to the policy direction given by the SCER. Section 33 of the National Electricity Law provides that the AEMC must have regard to any relevant SCER statement of policy principles in making a rule, although no statements of policy that are relevant to this matter exist. The AER is independent from the AEMC and the SCER.

3.3. "Correct" level of detail and guidance in the rules

There is no absolute "correct" level of detail that applies to the range of rules that may be made by the AEMC. The amount of detail will vary according to a number of factors.

At one end of the spectrum it is clear that matters of *policy* should be dealt with by the Rules. At the other end of the spectrum, matters of detailed implementation should not be the subject of the Rules. Between these ends of the spectrum are a whole range of matters where sometimes a greater level of detail in the Rules will be warranted, and where sometimes less detail will be called for.

Some general principles that may guide consideration of when it may be appropriate to have more or less details in the Rules are set out below:

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[12] Standing Committee of Officials of the Ministerial Council on Energy, *2006 Comprehensive Legislative Package: Overview and Response on Expert Panel on Energy Access Pricing*, November 2006, p 15.

[13] Standing Committee of Officials of the Ministerial Council on Energy, *2006 Comprehensive Legislative Package: Overview and Response on Expert Panel on Energy Access Pricing*, November 2006, p 16.

More detail in the Rules	Less detail in the Rules
• Matters that are capable of general application to all service providers • Matters that are largely "settled" and are unlikely to require adjustment or refinement over time • Matters that have no or limited interaction with other elements of the framework • Matters that do not require adjustment in light of changing market conditions or changes in sources of information	• Matters whose application will vary as between individual service providers or groups of service providers • Matters that are still subject to some operational testing and may need "tweaking" from time-to-time as the results of their application become known • Matters that have a number of "moving parts" and that impact on decisions about other elements of the framework • Matters that may require adjustment in light of changing market conditions or changing sources of information

As a general proposition, where rules provide less detail, or are less prescriptive, the relevant body applying those rules will have increased scope as to how to apply those rules. In these circumstances the rules may give guidance to the relevant body as to the matters they should have regard to in applying those rules to assist in ensuring that the underlying policy intent is given effect.

Where a matter is the subject of detailed rules and there is little scope for the relevant body to determine how the rules should be applied, it could be expected that little or no specific guidance is given. Where a matter is not the subject of detailed rules and the relevant body has considerable scope to determine the application of the relevant rules, it could be expected that very detailed and specific guidance is given as to the matters to which the relevant body should have regard in applying those rules.

Under the Rules general guidance is given to the AER when exercising "AER economic regulatory functions or powers", which includes functions and powers performed or exercised by the AER under the National Electricity Law or Rules that relates to the making of a transmission determination or distribution determination.[14] The AER must perform or exercise those functions or powers in a manner that will or is likely to contribute to the achievement of the NEO.[15] The AER must also take into account the Revenue and Pricing

[14] National Electricity Law, section 2, defines the term "AER economic regulatory function or power" as meaning: a function or power performed or exercised by the AER under this Law or the Rules that relates to: (a) the economic regulation of services provided by: (i) a regulated distribution system operator by means of, or in connection with, a distribution system; or (ii) a regulated transmission system operator or AEMO by means of, or in connection with, a transmission system; or (b) the preparation of a network service provider performance report; or (c) the making of a transmission determination or distribution determination; or (d) an access determination.

[15] National Electricity Law, section 16(1)(a). The national electricity objective is set out in section 7A of the National Electricity Law.

Principles[16] when, amongst other things, exercising a discretion in making those parts of a distribution determination or transmission determination relating to direct control network services.[17]

A body applying rules will need policy guidance where matters require evaluation, judgement, or the formation of an opinion, or otherwise require the exercise of discretion. The Western Australian Supreme Court made the following comment in the context of the Gas Code:[18]

> Many of these subsections [in 3.1 to 3.20 of the Gas Code] require evaluation, the exercise of judgement, the formation of opinion, or other exercises of discretion by the Regulator. Examples include what is practicable and reasonable (s 3.2); whether the terms and conditions of an Access Arrangement are reasonable (s 3.6); the duration of the Access Arrangement (s 3.18); whether mechanisms to address the risks of incorrect forecasts should be included where the duration is more than 5 years; and, if so, what mechanisms (s 3.18). In the exercise of such discretions it is clear the Regulator needs policy guidance.

While in some cases reference to broadly expressed principles, such as, under the National Electricity Law, to the NEO and Revenue and Pricing Principles, may be sufficient to guide regulatory decision-making, in other cases greater guidance will be required to ensure policy objectives are achieved.

The AEMC was alive to the need to balance prescription and flexibility in its development of Chapter 6A of the Rules.[19]

> Some matters in regulatory determinations, however, involve a degree of uncertainty such that it is necessary for the rules under which decisions are made to allow for the exercise of discretion and judgment by the regulator. The Commission's approach has been to consider the costs and benefits of providing certainty or flexibility in the context of the different elements of the regulatory framework specified in the Revenue Rules. Where there is clearly increased benefit from providing certainty and transparency there is merit in codifying methodologies and processes in rules. However, where there is uncertainty, such as in the case of forecasts and the calibration of the operational features of incentive mechanisms, there are benefits in ensuring that the Rules provide the regulator with sufficient flexibility to exercise judgment in making informed decisions.

The AEMC also did not consider there to be one correct approach to be taken to the extent of codification in the Rules.[20]

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16 The revenue and pricing principles are set out in section 7A of the National Electricity Law.

17 National Electricity Law, section 16(2)(a)(i).

18 *Re Dr Ken Michael AM; Ex parte Epic Energy (WA) Nominees Pty Ltd & Anor* [2002] WASCA 231, [58].

19 AEMC, *National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18: Rule Determination*, 16 November 2006, p xiv.

20 AEMC, *National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18: Rule Determination*, 16 November 2006, pp xix – xx.

> The Commission believes that there is no general principle that can be applied to determine the appropriate extent of codification of rules in all circumstances for all types of energy infrastructure. The Commission's general approach has been to improve the transparency and predictability of regulatory outcomes by **codifying those elements of regulatory methodology and process which are comparatively uncontroversial,** unlikely to need to vary in application across different TNSP's in different circumstances or which are necessary to be determined on an *ex ante* basis for the efficient administration of the regulatory process.
>
> The Commission also understands that there are significant areas of regulatory decision making that should involve the exercise of judgment and discretion by the regulator. This is because good economic regulation should be sufficiently flexible to adapt to the individual circumstances of regulated businesses across different periods of time. Areas of flexibility and discretion also allow the regulatory process to evolve with experience, learning and innovation. Importantly, however, where legal rules confer discretions on regulators the rules should also specify criteria for exercising those discretions. [emphasis added]

3.4. Application of the general principles to incentive schemes under Chapter 6 and Chapter 6A

3.4.1. Matters of policy / matters of detailed implementation

The issue of whether the regulatory framework should encompass incentive schemes and the characteristics that those schemes should have is an important matter of policy. The types of incentive schemes that should be in operation is also a matter of policy. For example, whether there should be incentives around demand management and service standards.

Under the current framework, the policy as to the regulatory framework providing for incentives is captured in both the National Electricity Law and the National Gas Law. In proposing its comprehensive legislative package for the regulation of electricity and gas networks, the MCE noted:[21]

> The framework in the NEL and NGL will require the AEMC to make and maintain Rules that address:...
>
> ...(f) Incentives for owners, controllers or operators of electricity transmission and distribution systems and gas transmission and distribution networks/pipelines to make efficient operating and investment decisions, including incentive regimes based on guaranteed service levels / customer service performance standards and network service performance incentive scheme and taking into account incentive regimes, guaranteed service levels or minimum service standards (if any) established by jurisdictions.

The Chapter 6 and Chapter 6A Rules then set out the types of explicit incentive schemes that must or may apply, in addition to the requirement for a price or revenue cap to be applied. These are as follows:

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[21] Standing Committee of Officials of the Ministerial Council on Energy, *2006 Comprehensive Legislative Package: Overview and Response on Expert Panel on Energy Access Pricing*, November 2006, pp 18 – 19.

Chapter 6: Distribution	Chapter 6A: Transmission
• Efficiency benefit sharing scheme which must apply to efficiency gains and losses associated with operating expenditure and which may apply to gains and losses related to capital expenditure • Service target performance incentive scheme • Demand management incentive scheme	• Efficiency benefit sharing scheme which must apply to efficiency gains and losses associated with operating expenditure[22] • Service target performance incentive scheme

While the AEMC determined in making Chapter 6A the types of incentive schemes that would form part of the economic regulatory framework, the AEMC recognised that the detail of those schemes was a matter that could be given to the AER provided that the rules gave the AER guidance on the design of those schemes.[23]

> In a number of areas it is appropriate that the AER has discretion in determining various aspects of, and process for, economic regulation. Where the AER is given discretion under the Draft Rule, guidance for the exercise of that discretion is also provided. These include matters such as the design of incentive schemes...

Guidance as to the design of incentive schemes is given in Chapter 6 and Chapter 6A. For example, when developing and implementing an efficiency benefit sharing scheme for operating expenditure the AER is required to have regard to: [24]

- the need to provide service provides with a continuous incentive (that is equal in each year of any regulatory control period) to reduce operating expenditure;
- the desirability of both rewarding service providers for efficiency gains and penalising service providers for efficiency losses; and
- any incentives that service providers may have to inappropriately capitalise operating expenditure.

Under Chapter 6, the AER is required to have regard to two further matters, being:[25]

- the need to ensure that benefits to consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme; and

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[22] Note Chapter 6A does not have an analogue provision to that in Chapter 6 which provides that the efficiency benefit sharing scheme may apply to gains and losses related to capital expenditure.

[23] AEMC, *Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006: Rule Proposal Report*, February 2006, p 36.

[24] Clauses 6.5.8(c) and 6A.6.5(b).

[25] Clause 6.5.8(c).

- the possible effects of the scheme on incentives for the implementation of non-network alternatives.

Incentive schemes will also involve matters of detailed implementation. These could include reporting to the AER on things relevant to the scheme and the calculation of the various parameters that are inputs to the scheme. In the context of the incentive schemes to apply to operating expenditure under Chapter 6A, the AEMC noted that the mechanics of the benefit sharing mechanism was an issue of "detailed implementation and should be left to the guided discretion of the AER".[26]

3.4.2. Matters that are capable of general application / matters whose application varies as between service providers

Whether or not a type of incentive scheme is to apply is a matter that will be typically capable of general application to all service providers. For example, whether DNSPs will be subject to both capital and operating expenditure incentives is a matter of general application to all DNSPs.

However, the practical application of those schemes will vary between DNSPs, for example, under a service target incentive performance scheme, the service targets that will apply to each individual DNSP.

In the context of making Chapter 6A, the AEMC recognised the need to appropriately balance the level of prescription in the rules around matters like incentive schemes.[27]

> There are areas in which it would be inappropriate to fix regulatory practice in statutory rules. In particular the Commission believes that the AER needs flexibility in determining what information should be submitted with TNSP revenue cap proposals, the form of incentive mechanisms for operational expenditure and performance that should be applied, cost allocation principles, the mechanics of rolling-forward the RAB and the form of PTRM adopted. In these areas the Rule Proposal provides for the AER to develop models and guidelines.
>
> The Rule Proposal sets out requirements for the AER to comply with Transmission Guideline Procedures when it wishes to alter any of the Guidelines. The Procedures set out a transparent public consultation process, involving a draft and final decision with clear reasons given for its approach. This will help increase the predictability and certainty of the regulatory regime, without excessively hampering the AER when it considers that a change to a Guideline is required.

3.4.3. Matters that are largely settled / matters that may require refinement over time

As noted above, whether the regulatory framework should provide for incentive schemes and the general nature and characteristics of those schemes is an important matter of policy. It is

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[26] AEMC, *National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18: Rule Determination*, 16 November 2006, p 97.

[27] AEMC, *Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006: Rule Proposal Report*, February 2006, p 38.

settled policy that, for example, a feature of the regulatory framework should be strong incentives around operating expenditure. Specific elements of incentive schemes however may require fine tuning over time to meet underlying policy objectives.

3.4.4. Matter that have limited interaction with other elements of the framework / matters with a number of moving parts

Incentive schemes not only interact with each other (for example, incentives around operating expenditure and service standards), but they also interact with other elements of the regulatory framework (for example, changes in service classification). In light of this, there is the need to provide the AER with the ability to have regard to a number of factors in determining the specifics of how any particular incentive scheme will apply to a particular service provider in a particular regulatory period.

In making Chapter 6A, the AEMC was conscious of the need to provide for incentive schemes that operated together in a way that would meet an overall policy objective of efficiency.[28]

> The Commission's framework for economic regulation as codified in the Revenue Rule seeks to provide a range of incentive mechanisms that work harmoniously together to provide an overall suite of incentive properties that deliver efficiency and desired production and service outcomes. The component parts of the Commission's incentive framework include incentives for:
>
> - efficient capital expenditure;
> - efficient operating expenditure;
> - maintaining service standards; and
> - management of uncertain project costs or timing.

The AEMC also recognised however the importance of the AER having some flexibility to determine how the various schemes would apply to TNSPs given the interaction of the schemes with each other.[29]

> The Commission, in setting an upper limit on the bounds of the risk and reward of the scheme had the intent of allowing the AER to determine alternative values up to (and including) that limit...in order to provide additional clarity in the Rules the Commission has decided at allow the AER to determine the upper and lower bound of the potential risk and reward of the scheme within a range of one per cent to five per cent.
>
> The Commission considers that this flexibility is appropriate due to the interdependent application of multiple incentive mechanisms for TNSPs. In addition,

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[28] AEMC, *National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18: Rule Determination*, 16 November 2006, pp 94 – 95.

[29] AEMC, *National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18: Rule Determination*, 16 November 2006, p 101.

such an approach will allow for experimentation and innovation to produce optimal outcomes over time.

3.4.5. Matters that do not require adjustment in light of changing market conditions or sources of information and those that do

The principle of more detailed rules being appropriate where the relevant matter does or does not require adjustment in light of changing market conditions or sources of information is not directly applicable to incentive schemes.

3.5. AER rule change proposal

The AER has proposed two major changes with respect to incentive schemes operating under both Chapter 6 and Chapter 6A.

- the first has been to seek to strengthen the incentives associated with capital expenditure by prescribing in the rules a scheme under which, in broad terms, to the extent there is capital expenditure above the allowed forecast amount, only 60 per cent of that excess amount would be added to the regulatory asset base at the beginning of the first regulatory year of the regulatory period following that in which the expenditure was incurred. This is the main subject of this report.
- the second has been to seek to provide the AER with the ability to develop "other" incentive schemes (being other than those identified in the rules) where the AER considers that there are benefits to end users or customers arising from applying the incentive scheme or schemes to DNSPs or TNSPs.

Applying the analytical framework developed to the first of these matters, we conclude that the AER's proposal to prescribe the operational detail in the rules would imply an inappropriate degree of prescription in the rules. In particular we observe as follows.

- *Policy vs. implementation* – the rule changes proposed would implement the operational detail of the scheme, rather than to provide policy guidance to the AER. This level of detail is not inappropriate where a scheme is settled and implementation issues are unlikely to emerge; however, as the AER's proposed scheme is new and as yet untested, this is unlikely to be the case.
- *Application across NSPs* – our conclusion in Section 4 of this report is that aspects of the scheme should be permitted to vary across NSPs (between sectors and possibly also between NSPs). In particular, the incentive power of the scheme (which under the AER's proposed scheme is a function of a number of parameters including the 60 per cent sharing factor) should be sensitive to (amongst other things) differences in the strength and completeness of service related incentives and obligations and the character of projects that are undertaken.
- *Refinement over time* – we argue in Chapter 4 that a well-designed incentive scheme for capital expenditure would require a number of complex matters to be addressed to ensure, amongst other things, that efficiencies are properly measured and the risk caused by the scheme is managed to the extent practicable. These would require refinement over time.

We note that the same issues would be likely to arise with the AER's proposed scheme and provide pressure for future rule changes.

- *Interaction with other parts of the regulatory regime* – we argue in Chapter 4 that a well-designed incentive scheme for capital expenditure would have a number of interactions with other parts of the regulatory regime. Most notably, the incentive power for capital expenditure efficiencies should be selected such that it is consistent with, amongst other things, the strength of incentives for operating expenditure efficiencies and incentives applied to service performance. In addition, we note that measures may be required to ensure that efficiency gains are properly measured, which may need to be sensitive to factors such as how expenditure requirements were forecast.

A preferable means of implementing a capital expenditure incentive scheme would be for this to be empowered by the Rules, and with appropriate criteria developed. We note that the AER already has the discretion to implement a capital expenditure incentive scheme through the 'efficiency benefit sharing scheme' provisions for distribution. We discuss these provisions in more detail in section 4.

Conversely, the AER's proposal to give it the ability to introduce any incentive scheme trespasses into important matters of policy that are properly the subject of the SCER and the AEMC. If this proposal was accepted, the AER would in effect be putting itself in the position of rule-maker and making policy determinations as to the matters that service providers should be given incentives to achieve. This is inconsistent with the regulatory and market institutional framework put in place in the energy sector, as these rules are properly the domain of policy-makers and not the AER.

4. Criteria for the design of a capital expenditure incentive scheme

4.1. Objectives for a capital expenditure efficiency scheme

The objective of financial incentive arrangements for any element of a regulated business's activities is to align the private, financial incentives of a network business with the outcomes that are desirable from the perspective of all electricity market players.[30] An assumption of incentive regulation is that there are aspects of a regulated business's performance that cannot be observed (for example, while cost can be observed, effort levels to contain cost generally cannot) and where the 'optimal' outcome is not known with certainty to the regulator (for example, techniques to predict the efficient cost are not sufficiently accurate). In this context, the purpose of providing such incentives is two-fold:

- first, by providing businesses with financial incentives to make socially optimal decisions, superior outcomes should be expected than if a regulator attempted to dictate what the regulator considered to be an optimal outcome. This follows because the financial incentives encourage the operational knowledge that businesses possess to be 'harnessed', which may not have been available to a regulator; and
- secondly, by putting in place well-functioning incentive arrangements, the task of regulation is simplified. This is achieved because businesses respond to the incentives, and thereby create information about the outcomes that are efficient.

With respect to capital expenditure, some of the key outcomes that an incentive scheme should promote include the following.

- *Choose the most efficient projects* – a capital expenditure incentive scheme should ensure that where there are alternative projects for meeting a particular network need that the lowest cost option is pursued. This includes ensuring that businesses consider the full range of potential options, including different capital projects, operating expenditure (where relevant) and non-network solutions. In addition, the scheme should encourage NSPs to consider the benefit that a project would deliver and undertake projects that are expected to provide a net-benefit, having regard to the impact on such matters as service performance and losses.[31]
- *Undertake projects at the most efficient time* – undertaking a project earlier implies it imposes a higher cost, and so the incentives should encourage projects to be deferred until the benefit from the project is maximised.

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[30] This objective is a direct application of the NEO and Revenue and Pricing Principles. The NEO in broad terms requires the pursuit of economic efficiency for the long term benefit of customers, which is achieved by maximising the joint interests of all players in the chain of electricity supply and consumption. Our translation of the NEO is consistent with how the Rules describe the purpose of the Regulatory Investment Test for Transmission (clause 5.6.5B): "The purpose of the regulatory investment test for transmission is to identify the credible option that maximises the present value of net economic benefit to all those who produce, consume and transport electricity in the market (the preferred option)."

[31] It is noted here that NSPs are not able to trade-off the benefits of some projects, for example, where a reliability obligation exists. However, NSPs should still have an incentive to consider whether an enhancement to a project may deliver a net benefit.

- *Undertaking projects at their least cost* – once projects are chosen a network business should have an incentive to ensure that the costs of their delivery are minimised and all risks thereto are managed in an efficient manner.
- *Improve compared to what otherwise would have occurred* – the NSPs should have an incentive to make efficient decisions and control costs to the extent possible, irrespective of how that business has performed compared to the forecasts for that regulatory period.

In addition, practical considerations of risk are central to the design of any incentive scheme.

Financial incentives are created by exposing a regulated business to a share of the social benefit or detriment associated with the object of the scheme (for example, expenditure or service levels), which in turn implies that revenue and cost will depart. However, while the regulated business will have some control over the ultimate outcome of the application of the scheme to it – indeed, this is the reason for the scheme – it is inevitable that factors that are outside of the control of the regulated business will affect its performance, and hence the payoffs under the incentive scheme.

In relation to capital expenditure, it is possible for differences in outturn demand relative to forecast to have a material effect on expenditure requirements, as well as changes to regulatory requirements (for example, reliability criteria or safety obligations). It is also possible for forecasts arrived at during a price/revenue review to set performance targets that are either excessively easy to meet, or targets that even a frontier performer cannot meet. As such, windfall gains or losses can be created. While the effect of some of these issues can be ameliorated by the design of the incentive scheme, by their nature incentive schemes create risk, either for regulated businesses through an inability to recover cost, as well as a wider risk of policy change if the rewards are perceived to be out of proportion to the efforts of the regulated businesses. Given the need for regulated businesses to attract and retain large quantities of capital to meet their capital expenditure requirements, and a commensurate need for the scheme to be seen as credible – so that pressure for changing the rules is not created every time positive rewards accrue to regulated businesses – an important consideration with the design of any scheme is to ensure that the rewards of the scheme are both compatible with the regulated businesses retaining the capacity to attract and retain capital and with the long term sustainability of the scheme.

4.2. Considerations when developing a capital expenditure incentive scheme

The discussion above outlined or implied a number of considerations that are important when designing an incentive scheme for capital expenditure; this section expands upon those matters.

The considerations that have been identified as relevant to the design of a best-practice incentive scheme for capital expenditure are:

- the overall objective of the scheme, which is to promote the NEL objective;
- how efficiency gains and losses are to be measured, which we recommend be against the forecasts that were determined for the regulatory period in question (except where adjustments have been authorised in advance);

- that the mechanism should ensure, to the extent practicable:
  - a constant and continuous incentive across the regulatory period, and
  - payoffs under the scheme that are symmetric (that is, improvements are rewarded and declines are penalised);
- the incentive power under the scheme should be set at an appropriate level, having regard to:
  - the benefits that customers are expected to receive under the scheme;
  - the power of the incentives created by related incentive arrangements and the breadth and coverage of 'opposing' regulatory obligations; and
  - risk that is created to the regulated businesses and the long term sustainability of the scheme (after having taken into account how risk can be ameliorated within the scheme), but with:
    - the scheme implemented in a manner that adjusts for the impact of material exogenous events to the extent practicable, and
    - an explicit consideration given of whether quantitative limits should apply to the outcomes under the scheme;
- the scheme permits departures from the first principle where necessary to ensure that efficiency gains are measured as accurately as practicable, and
- the scheme should be consistent with the Revenue and Pricing Principles of the NEL.

These are discussed in turn below.

4.2.1. Overall objective for the scheme

The NEO provides the overall guidance for the design of the scheme, which is to promote economic efficiency so as to promote the long term interests of customers.

In relation to incentives for expenditure, this is achieved by encouraging NSPs to minimise costs for a given level of service performance (so that incurring additional expenditure where this delivers more than a commensurate improvement in the value of service performance is therefore consistent with this objective).

As observed in section 2 above, how an NSP's expenditure level is tracking compared to the regulatory allowance for a particular regulatory period is irrelevant in this regard – what matters is that an NSP be provided with an incentive to contain cost wherever possible.

4.2.2. Measure efficiency against the forecasts that were accepted for the regulatory period

It is important for NSPs to have certainty as to how efficiency gains will be measured (and then rewarded), otherwise the incentives to pursue those gains will be diminished. An important question in this regard is the benchmark against which efficiency will be measured.

The benchmark for efficiency that is reflected in regulated prices/revenues for the regulatory period is the forecast that was accepted by the AER for the period in question. This is the obvious and only practicable benchmark for efficiency for the design of a wider capital expenditure incentive scheme.

It is noted that the discussion under section 4.2.4 proposes that elements of the original forecast should be varied (where practicable) to take account of the effect of exogenous events on expenditure needs during the period in question, thus reducing the scope for windfall gains and losses. However, that discussion also emphasises the need for any such adjustments to be based on formulae that are set prior to the regulatory period for which performance is to be measured and rewarded or penalised.

4.2.3. Design of the mechanism – constant incentive rate and symmetric payoffs

An incentive for NSPs to pursue efficiency gains continuously and to undertake projects at the most efficient time are both advanced by having an incentive rate that is constant, to the extent practicable. In particular, if the incentive rate varies substantially during the course of a regulatory period, then an incentive may be created for either deferring or advancing projects irrespective of the merits of doing so. Moreover, the effort undertaken by NSPs would also be expected to respond to the size of the financial incentives, with commensurately less effort undertaken at times that the incentive rate is low.

Equally, one of the objectives noted above is that entities have an incentive to continue making an effort to improve relative to the counterfactual. This may imply large expenditure reductions where efficiencies are possible, or containing the cost as much as practicable where a step up in expenditure requirements is observed. In addition, it also implies that incentives for improvement should exist irrespective of whether that entity is performing well against the expenditure forecast that was adopted in the previous regulatory period or whether it is overspending.

The objective of providing all entities with an incentive for continuous improvement can only be met if entities that are already outperforming will receive a reward for further performance improvement, and equally that entities that are overspending will receive a greater penalty if the gap between the forecast and actual expenditure widens. This latter point is subject to the need for the scheme to meet the requirements of the Revenue and Pricing Principles in the NEL, which are discussed further below.

4.2.4. Determining the incentive power of the scheme

The power of the incentive is determined by the amount of any benefit or cost that is retained by the businesses. There is no single right answer to the question of the optimal power of a capital expenditure incentive, but rather a number of factors that should be taken into account.

One means of defining the ‘optimal incentive’ is to ask what maximises the benefits to customers. Thus, as the incentive rate is raised, the potential size of the ‘efficiency pie’ is likely to increase, but less will flow to customers. This means that the optimal scheme would depend upon the expected responsiveness of businesses to an efficiency incentive, itself a function of the business’s motivation and the capacity for further gains. Where gains are

expected to be 'easy', a low rate may be appropriate, but with a higher rate required where gains are more difficult and so responsiveness falls.

However, the appropriate size of the incentive may also depend on the capacity to forecast capital expenditure forecasts, with the reducing the incentive rate a means of reducing the scope for windfall gains or losses. In addition, a key concern is to ensure that the incentive to reduce capital expenditure is balanced by measures to ensure delivery of optimal service levels, as well as balanced against the incentive to reduce operating expenditure.

These matters are discussed further below.

Ofgem's approach to setting the incentive rate

The actual incentive rate that is applied to an individual business in the UK is determined via the Information Quality Incentive (IQI). Under the IQI scheme, businesses are provided with a menu of choices (and get to nominate their expenditure forecast): the choice offered is that the lower is the business's capital expenditure forecast compared to the regulator's baseline, the higher is the incentive rate. The matrix of choices is structured such that businesses always optimise by putting in their best forecast of expenditure.[32]

The bounds of the incentive rate that can apply to businesses are determined in advance by Ofgem. The lower bound of the incentive rate is set to provide sufficient incentive so that network businesses do not spend unnecessarily. In setting a maximum bound Ofgem has indicated it would have regard to risks faced by the business as well as the risk of windfall profits.

In the most recent distribution review Ofgem set the range of the incentive between 30 per cent and 55 per cent, although most businesses received an incentive rate of between 45 per cent and 51 per cent. Ofgem has indicated that it is intending to apply an incentive rate of between 40 per cent to 50 per cent to transmission businesses in its forthcoming review (with the new controls to apply from 1 April 2013).

Benefits to customers

While the long-term purpose of the carry-over mechanism is to provide benefits to the customer, the service provider must also receive some benefit in order to create an incentive to find and implement efficiency gains. Accordingly, the sharing of efficiency gains between a regulated service provider and its customers is subject to competing forces. The greater the share of the efficiencies able to be retained by the service provider, the greater the incentive the service provider has to make efficiency gains. Those savings will eventually be passed to customers. However, the greater the share held by the service provider, the longer customers

[32] This short summary glosses over some of the complexity of the scheme. In particular, the scheme requires the regulator to have a baseline expenditure forecast in order to construct the menu of choices, which in turn is subject to the same pressures that previously applied to the assessment of individual entities' forecasts.

must wait before any efficiency gains are passed to them and the lower the ultimate share of benefits that the customer receives.

One framework that has been applied to assess the optimal incentive power for an incentive scheme is to ask what incentive rate will maximise the benefits to customers. The trade-off referred to above can be thought of as balancing the incentive to increase the size of the efficiency pie and the share that will be passed on to customers. At the extremes of zero or 100 per cent share of the benefits for the service provider, there is no customer benefit as either there is no incentive for the service provider to find and implement efficiency savings (zero per cent share) or the service provider maintains all of the benefits (100 per cent share). For other sharing ratios, customer benefit reflects the trade-off between the size of the efficiency pie and the customer's share of it.

The precise relationship between incentives and consequent efficiency gains is unclear, but it is possible to hypothesise a theoretical basis to provide guidance as to reasonable sharing ranges. On the supply side, the primary factor underlying the optimal sharing ratio relates to the responsiveness of the regulated business to changes in the share of efficiency gains. There are three possibilities to consider:

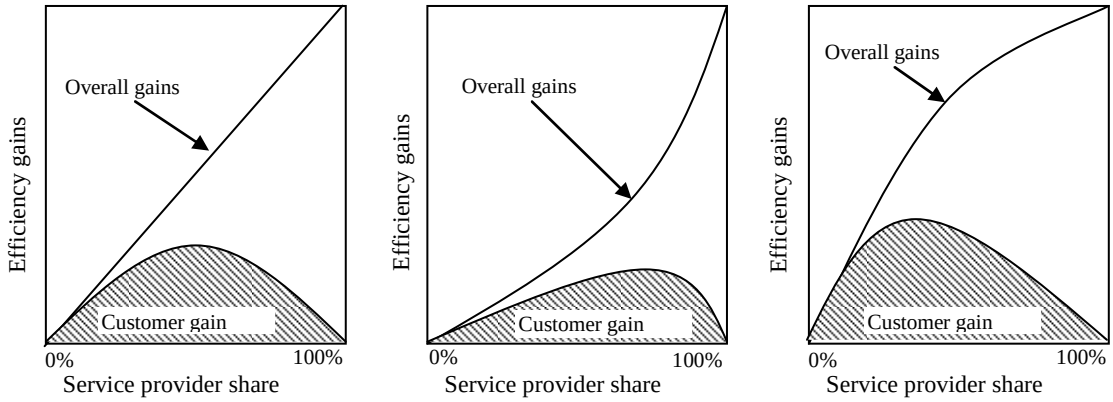
- responsiveness of the service provider increases *constantly* with the increase in the reward;
- responsiveness of the service provider increases at an *increasing* rate with the increase in the reward; and
- responsiveness of the service provider increases at a *decreasing* rate with the increase in the reward.

The second alternative involves the service provider becoming more responsive to a marginal increase in the incentive as the size of the incentive grows. There is no theoretical basis for this pattern of response, with diminishing rather than increasing returns the usual economic assumption.

The assumption of diminishing returns is reflected in the third alternative, with each incremental increase in the share of the benefits having a lower incentive effect than the previous increase.

For each of these scenarios, a map can be made between the share of the benefit of each party and the size of the efficiency gains made. This trade-off is shown in the figure below.

Figure 4.1
Relationship between responsiveness of service provider to share of gains retained and the ultimate share of gains to the customer (ignoring allocative efficiency)[33]



In the first chart, there is a constant rate of gain in efficiency with an increasing share of benefits to the service provider. The customer gain is maximised at a 50:50 share. In the second (unrealistic) case, the marginal incentive increases with the share of the benefits to the service provider, leading to an optimal share for the service provider of greater than 50 per cent. In the third case, the customer gain is maximised where the service provider share is below 50 per cent.

Importantly, the charts above ignores a number of other factors, such as the impact on allocative efficiency. The desire for short-term allocative efficiency pulls the preferred share of benefits towards the customer.

Alignment with other incentive schemes and service obligations

As discussed above, one of the objectives of a capital incentive scheme is to encourage businesses to make an efficient choice between capital projects and operating activities where possible, including to seek non-network options where it is efficient to do so. As discussed above, the effect of an incentive scheme on expenditure is to penalise an additional unit of expenditure. It follows that for NSPs to have an incentive to make an efficient selection between capital projects and operating activities, the implicit penalty from an additional unit of expenditure should be equalised across the incentive schemes that apply to the different expenditure types. It follows in turn that an important criterion for the design of the incentive scheme for capital expenditure is the incentive power that is provided under the incentive scheme for operating expenditure. It is noted that this need not mean that the incentive power for capital expenditure need therefore align to the incentive power under incentive scheme for operating expenditure, but rather the consideration should be applied to the design of each scheme, and the most appropriate incentive power overall be selected.

[33] Diagram based on charts in Office of the Regulator General, Victoria, *Electricity Distribution Price Determination 2001-05*,Volume 1, page 92, itself drawing upon: Williamson, B., (1997) NERA Topic 20 – Incentives and Commitment in RPI-X Regulation.

Similarly, the power of the capital expenditure incentive also interacts with the incentive on businesses to deliver improved service performance for customers. As the power of the incentive increases it strengthens the incentive to avoid capital expenditure at the expense of service quality. This is because a higher powered capital expenditure incentive increases the marginal cost of service improvements.

Financial incentives and strict obligations are both applied to encourage a level of service performance desired by customers and/or no slippage in service performance compared to a standard. However, to the extent that it is difficult for either financial incentives or strict obligations to be defined with sufficient comprehensiveness and/or to be enforced, this potential may place a limit on the power that can be applied to capital expenditure incentives.

Risk created by the scheme

As discussed above, the difficulty of forecasting capital expenditure requirements over an extended period, combined with the impact that exogenous factors have on the efficient expenditure requirements implies that it is inevitable that differences between actual forecast expenditure requirements will exist that cannot be controlled by and/or are not due to the efforts of the NSPs. Outcomes under the scheme that are very unfavourable to NSPs could affect their ability to finance efficiently (that is, accessing the deep and liquid sources of finance), whereas positive outcomes that are seen as not commensurate with effort create the risk to the scheme's acceptability to all stakeholders over the long term. All else constant, the higher is the power of the incentive scheme, the larger the potential windfall gains and losses.

An obvious response to the prospect for the scheme to add unsustainable risk is to limit the power of the incentive scheme to an amount that is not considered to impose excessive risk. This could take into account such matters as the types of projects that are undertaken and the potential for projects to be brought forward or deferred, as well as the precision with which expenditure requirements can be forecast.

A second response is to attempt to adjust the incentive scheme to take account of the effect of exogenous factors to the extent that this is practicable. One means of achieving this is to adjust components of the original expenditure forecasts to reflect differences between outturn demand or other input drivers, using an adjustment factor that was established at the commencement of the regulatory period. By way of example, under the capital expenditure incentive schemes that existed previously in Victoria, an adjustment was made to the benchmark for connection expenditure based on the difference between the forecast and outturn number of connections and a unit rate that had been prescribed.

A further option is to exclude certain types of projects altogether from the capital expenditure incentive scheme. The current contingent project scheme as it applies to transmission (and which the AER has proposed be extended to distribution) provides a mechanism for excluding very large and uncertain projects, with those costs being excluded from the price or revenue cap initially, and only brought in once a defined trigger for the need for the project is met.

4.2.5. Adjustments to ensure that efficiency gains are measured as accurately as practicable

A concern that has been raised with respect to the application of carry-overs to capital expenditure in the past is the scope for businesses to be over-rewarded where projects are deferred from one period to the next. The design of a capital expenditure incentive scheme assumes that the expenditure reduction is a reduction in expenditure forever – if a project is deferred to the next regulatory period, that is still an efficiency gain, but an adjustment is required to the basic calculation to measure properly the benefit.

The problem with over-counting the benefit from project deferrals is that an incentive to defer projects where this does not create a net benefit may be created. This problem is not unique to the scheme proposed in chapter 6 of this report. –The AER's proposed scheme would encourage substantial deferrals if a business expected otherwise to overspend, and also exists to a lesser extent under the current arrangements.

The response to this matter depends on the nature of the projects in question and how capital expenditure was forecast. It is also important to keep in mind that what is required is a pragmatic solution that is proportionate to the issue, rather than a perfect scheme. Where capital expenditure is dominated by large projects, a proportionate solution may be to focus on those large projects. It may also be possible to develop simple indicators of whether the forecast scope of renewals was delivered – for example, the forecast volumes of different forms of investment. If such an indicator could be developed, then the AER could simply compare the forecast volumes to the actual, and just confirm that they are sufficiently close for cross-regulatory period deferrals to be considered immaterial and hence that no adjustment to the simple calculation is required.

Where deferred projects are identified, then the task is to adjust the benefit provided under the scheme to ensure that the efficiency gain is measured correctly.

4.2.6. Implementation costs

Giving effect to an incentive scheme for capital expenditure would be expected to increase the information capture requirements for NSPs. The precise requirements would depend critically on such matters as how the issues identified in section 4.2.5 are addressed.

It is important that the data capture requirements and the resulting implications for cost be factored into the design of the scheme.

4.2.7. Consistency with the Revenue and Pricing Principles

The Revenue and Pricing Principles require that the regulatory regime provide NSPs with a reasonable opportunity to recover at least efficient cost. This has two implications for the design of an incentive scheme for capital expenditure.

First, the scheme would need to ensure that there is an equal likelihood that the NSP could benefit from the scheme as it could be penalised, so that it was kept whole, at least in ex ante terms. Absent symmetry of pay-offs, an adjustment to the revenue stream would be required to ensure that the entity was kept whole.

Secondly, while this matter is complex, it may be difficult for the outcome of negative incentive payments to be applied where the aggregation across all incentive schemes reduced the revenue requirement for a particular regulatory period below the assessed efficient cost for that period.

4.3. Assessment of the current Chapter 6 and Chapter 6A criteria for efficiency benefit sharing schemes

The table below sets out the guidance for the design of efficiency benefit sharing schemes that currently exist in Chapters 6 and 6A, noting that the latter only applies at present to the design of such a scheme for operating expenditure.

Distribution (clause 6.5.8)	Transmission (clause 6A.6.5)
(a) The *AER* must, in accordance with the *distribution consultation procedures*, develop and *publish* a scheme or schemes (*efficiency benefit sharing scheme*) that provide for a fair sharing between *Distribution Network Service Providers* and *Distribution Network Users* of: (1) the efficiency gains derived from the operating expenditure of *Distribution Network Service Providers* for a *regulatory control period* being less than; and (2) the efficiency losses derived from the operating expenditure of *Distribution Network Service Providers* for a *regulatory control period* being more than, the forecast operating expenditure accepted or substituted by the *AER* for that *regulatory control period.* (b) An *efficiency benefit sharing scheme* may (but is not required to) be developed to cover efficiency gains and losses related to capital expenditure or *distribution losses*. (c) In developing and implementing an *efficiency benefit sharing scheme*, the *AER* must have regard to: (1) the need to ensure that benefits to consumers likely to result from the scheme are sufficient to warrant any reward or penalty under the scheme for *Distribution Network Service Providers*; and (2) the need to provide *Distribution Network Service Providers* with a continuous incentive, so far as is consistent with economic efficiency, to reduce operating expenditure and, if the scheme extends to capital expenditure, capital expenditure; and (3) the desirability of both rewarding *Distribution Network Service Providers* for efficiency gains and penalising *Distribution Network Service Providers* for efficiency losses; and (4) any incentives that *Distribution Network Service Providers* may have to capitalise expenditure; and (5) the possible effects of the scheme on incentives for the implementation of non-network alternatives.	(a) The *AER* must, in accordance with the *transmission consultation procedures*, develop and *publish* a scheme (an *efficiency benefit sharing scheme*) that provides for a fair sharing between *Transmission Network Service Providers* and *Transmission Network Users* of: (1) the efficiency gains derived from the operating expenditure of *Transmission Network Service Providers* for a *regulatory control period* being less than; and (2) the efficiency losses derived from the operating expenditure of *Transmission Network Service Providers* for a *regulatory control period* being more than, the forecast operating expenditure accepted or substituted by the *AER* for that *regulatory control period* in accordance with clause 6A.6.6(c), clause 6A.6.6(c1) or clause 6A.13.2(b)(3) and (5) (as the case may be). (b) In developing and implementing an *efficiency benefit sharing scheme*, the *AER* must have regard to: (1) the need to provide *Transmission Network Service Providers* with a continuous incentive (that is equal in each year of any *regulatory control period*) to reduce operating expenditure; (2) the desirability of both rewarding *Transmission Network Service Providers* for efficiency gains and penalising *Transmission Network Service Providers* for efficiency losses; and (3) any incentives that *Transmission Network Service Providers* may have to inappropriately capitalise operating expenditure. (c) At the same time as it *publishes* an *efficiency benefit sharing scheme* under this clause 6A.6.5, the *AER* must also *publish* parameters (the *efficiency benefit sharing scheme parameters*) for the scheme. For the avoidance of doubt, unless the *AER* provides otherwise in that scheme, such values may differ as between *Transmission Network Service Providers* and over time. (d) The *AER* must set out in each *efficiency benefit sharing scheme* any requirements with which the values attributed to the *efficiency benefit sharing scheme parameters* must comply, but such requirements must not be inconsistent with those factors to which the *AER* must have regard under paragraph (b).

The conclusion of the above analysis is that the design of a well-functioning incentive scheme for capital expenditure requires the following features or issues to be addressed:

- the specification of the overall objective of the scheme. This is the promotion of the NEL objective, which we conclude implies that expenditure minimisation should be encouraged (for a given level of service performance);
- a decision on how efficiency gains and losses are to be measured, which we recommend be undertaken by comparing the regulatory forecasts to actual expenditure (except where adjustments have been authorised in advance);
- the design of a scheme that delivers, to the extent practicable, a constant and continuous incentive for cost reduction across the regulatory period and symmetry in 'payoffs' under the scheme;
- a selection of an appropriate incentive power for the scheme, which needs to take account of:
  - the benefits that customers are expected to receive under the scheme
  - the power of the incentives created by related incentive arrangements and the breadth and coverage of 'opposing' regulatory obligations
  - the level of risk that the scheme may generate (after having taken into account how risk can be ameliorated within the scheme), but with:
    - the scheme implemented in a manner that adjusts for the impact of material exogenous events to the extent practicable, and
    - an explicit consideration given of whether quantitative limits should apply to the outcomes under the scheme;
- an assessment of whether measures should be implemented to ameliorate the risk that may be caused by the scheme, which may include:
  - excluding types or classes of projects from the scheme (beyond those covered by contingent projects);
  - adjusting forecast or actual expenditure to take account of the effect of exogenous events, with the adjustment mechanism defined in advance; and/or
  - placing quantitative limits on the outcomes that may flow from the scheme;
- considering further refinements to how an efficiency gain is measured to ensure as close a proxy as possible to true gains, addressing such matters as the definition of operating and capital expenditure and the identification and treatment of projects that move between regulatory periods (either deferred or advanced); and
- the implementation costs associated with the scheme.

We also observe that the scheme should be consistent with the Revenue and Pricing Principles of the NEL.

It is clear that both of these schemes contain criteria that direct the AER to many of these factors. In particular, both schemes:

- propose that efficiency gains and losses be measured against the forecasts that were accepted for the period in question;
- require a scheme that provides a continuous incentive; and
- require symmetry, so that gains are rewarded and losses and penalised.

In our view, the current criteria would not prevent a well-functioning incentive scheme for capital expenditure from being developed.

However, it is also clear that refinements could be made to the criteria to better direct the AER to the relevant factors and to provide context for the particular factor. The most important of the refinements that we would propose are as follows:

- *Overall objective of the scheme* – we would propose changing this from referring to a 'fair sharing' of gains to the promotion of economic efficiency.
- *Selection of the incentive rate* – the current criteria would be improved if the AER was required to make a transparent decision on the incentive power of the scheme, and to be directed to the factors that should be brought to bear on that decision. While some of these factors are present in the current criteria (namely customer benefits) the factors are incomplete and lack context. Refining the criteria in this matter would, amongst other things, ensure that important differences across NSPs or sectors are reflected in the design of the scheme.
- *Mechanisms to ameliorate / manage risk* – the current criteria do not require an explicit consideration of measures to reduce or limit the risk created by the scheme, which is an important omission. Requiring an explicit consideration of risk (and measures to limit this) would ensure that relevant differences between NSPs (either individually or between sectors) were considered explicitly and built into the design of the scheme.
- *Other mechanisms/adjustments to improve the scheme* – the current criteria would also be improved by authorising additional mechanisms or adjustments to the measurement of efficiencies where necessary to ensure that the measured efficiency gains are a better proxy for actual efficiency gains. The current rules refer to 'capitalisation policy' which is one such issue, but this is incomplete. At the same time as authorising such mechanisms, the criteria should require that the method for adjusting measured efficiencies be defined prior to the period in question.

The box immediately below summarises these views in drafting instruction form. We highlight, however, that these drafting instructions reflect our preliminary views only and have been presented to assist further the consideration of this matter.

5. Assessment of the AER's proposed scheme

The purpose of this section is first to analyse the effect of the AER's proposed capital expenditure and then to analyse whether it would meet the current EBSS criteria and the improvements to those criteria that we have proposed.

5.1. Implications of the AER's capital expenditure incentive scheme

5.1.1. AER's proposal

The AER's proposed scheme for enhancing capital expenditure incentives has been summarised already above, but in brief the AER has proposed amending the rules for rolling forward the RAB so that this is adjusted at the start of each regulatory period by:[34]

- either the smaller of:
  - the total amount of actual capital expenditure during the preceding regulatory period; or
  - the total amount of forecast capital expenditure determined in the determination for the preceding regulatory period; plus
- 60 per cent of the total actual capital expenditure where it exceeds the total forecast capital expenditure.

In other words, if an NSP *underspends* compared to the original regulatory forecast then this actual amount will be rolled into the RAB (same as the current approach); however, if an NSP *overspends*, then only 60 per cent of the overspend will be rolled into the RAB.

Box 6.2 of the AER's rule change proposal[35] sets out an example of how this mechanism would operate. In the example, an NSP overspends *in total* over the regulatory period by $2. At the reset, the AER would adjust the RAB to include the entire allowed capex as determined at the previous reset ($20), *plus* 60 per cent of the capex overspent over the *regulatory period*, ie, $1.20 (60% of $2). This is in contrast to the current approach, where the RAB would be adjusted to reflect the entire capex incurred, ie, $22.

We note that the scheme as set out in the AER's rule change proposal is silent on some of the detail of its implementation. First, it does not clarify whether the expenditure would be evaluated in real or nominal terms (that is, whether an adjustment should first be made for the difference between forecast and actual inflation). In the analysis below, we have assumed that an adjustment for the difference between forecast and actual inflation is first made, so that computations are performed in real terms. We note that such an adjustment would be expected under a CPI-X regime.

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[34] AER, *Economic regulation of transmission and distribution network service providers AER's proposed changes to the National Electricity Rules Part C – Draft Rules*, Rule change proposal, September 2011, pp.59-60, 130-131.

[35] AER, *Economic regulation of transmission and distribution network service providers AER's proposed changes to the National Electricity Rules*, Rule change proposal, September 2011, p.41.

Secondly, if depreciation is to be included in the scheme as at present (that is, recalculated based on actual capital expenditure), then a decision will be made as to which years and assets the overspend is associated with. Two options amongst others are possible.

- the AER could decide that all of the overspend was attributed to the last year of the regulatory period. This would imply that the capital expenditure that was deemed to be the overspend portion would not be depreciated before it entered the RAB (that is, 60 per cent of the gross value would enter the RAB); and
- alternatively, the AER could allocate the 'overspend' across the regulatory period and across asset classes, for example, in proportion to the original forecasts or to annual expenditure. In this case, the 'overspend' portion of expenditure would be depreciated before it entered the RAB (that is, 60 per cent of the net value would be added to the RAB).

For the calculations below, we have assumed that the overspend was allocated across the regulatory period (i.e., the latter approach above). However, we also report below the penalty that the NSP would incur if depreciation was excluded from the capital expenditure incentive scheme, which is the same as the penalty that an overspending NSP would incur if the AER added the gross value of the overspend to the RAB (that is, the first option above).

5.1.2. Analysis of the AER proposal

We note at the outset that the incentives that are provided by the AER's proposed incentive scheme are complex, because the penalty that an NSP expects to incur from spending (reward from saving) a marginal unit of capital expenditure depends upon whether the NSP expects to under or overspend in total, with a higher penalty arising in the latter case. That is:

- if an NSP is certain that it either will or will not overspend, then the penalty is straightforward – it is either the penalty under the current scheme or the penalty under the new scheme; however
- if the NSP is uncertain about how it will track overall – and so assigns a probability to each outcome, then the penalty (reward) that it expects for spending (saving) a marginal unit of expenditure will be a weighted average of the penalty (reward) under the current scheme, and the penalty (reward) that would be incurred if the NSP overspends overall, with the weight reflecting the probability of each outcome.

We note in practice that the likelihood an NSP assigns to overspending would tend to change over the regulatory period as new information becomes available, and with it the expected penalty (reward) associated with changes to expenditure.

Regarding the penalty (reward) under the new scheme if an NSP overspends, the AER's proposed scheme would supplement the penalty from overspending with the loss of the future income that would have been associated with the 40 per cent of the asset's cost that is precluded from entering the RAB. The effect of the scheme on an entity that expects to overspend is shown in Table 5.1. For ease of comparison, the results of Table 2.1 are also repeated and are labelled 'underspend', reflecting the fact that a firm that underspends overall would receive the same penalty or reward as it would under the current scheme.

For example, for an asset with a life of 7 years, the NSP that underspends overall would lose $80.6 (in present value terms) of a $100 investment over the life of the asset under the AER's proposed scheme, compared to $67.7 under the current scheme. In other words, $12.90 of the revenue lost stems from the 40 per cent the NSP must bear over the remainder of the asset's life, once the asset has been rolled into the RAB. If the overspend occurs in the last year of the regulatory period, then $40 of a $100 asset would be borne by the NSP (regardless of the asset life), i.e., the 40 per cent to be borne by the NSP.

Table 5.1
Costs Borne by NSP by Overspend through AER proposed scheme

		Current Regulatory Period				
Life of Asset		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
7 years	Underspend	67.7%	53.8%	38.0%	20.1%	0.0%
	Overspend	80.6%	72.3%	62.8%	52.1%	40.0%
20 years	Underspend	39.7%	31.2%	21.9%	11.5%	0.0%
	Overspend	63.8%	58.7%	53.1%	46.9%	40.0%
40 years	Underspend	32.1%	25.2%	17.5%	9.1%	0.0%
	Overspend	59.3%	55.1%	50.5%	45.5%	40.0%
Depreciation excluded	Underspend	24.6%	19.1%	13.2%	6.8%	0.0%
	Overspend	54.8%	51.5%	47.9%	44.1%	40.0%

Note: This assumes a regulated WACC of 10% and inflation of 2.5%.

We note that the penalties for an additional unit of expenditure still decline over the regulatory period, as with the current regime. For example, while 63.8 per cent of the cost of a marginal unit of expenditure on an asset with a life of 20 years would be lost if the asset was installed in the first year of the regulatory period, this would decline to a loss of 53.1 per cent in year 3.

As noted in Chapter 2, the AER has the discretion to leave depreciation out of the scheme for distribution and has proposed extending this to transmission. Accordingly, Table 5.1 also repeats the penalty the NSPs would bear if they overspend during the regulatory period and depreciation is omitted from the scheme. Compared to the scheme with depreciation included, the incentive power (now constant across assets) is lower for all assets, but particularly for shorter lived assets. However, again, the incentive power still declines materially over the regulatory period.

5.2. Would the AER scheme meet the requirements for an Efficiency Benefit Sharing Scheme?

5.2.1. AER's proposal compared to an efficiency benefit sharing scheme

As discussed in Chapter 4, the NER already provides the AER with the ability to create an efficiency benefit sharing scheme for capital expenditure, although the AER has to date chosen not to develop such a scheme. In that chapter, we discussed the criteria that would apply at present to the development of such a scheme, and also presented our own views as to how those criteria could be improved. This raises the important question of whether the AER's scheme would meet the current rules criteria, and related to this whether the answer to this question would change if those criteria were amended in the manner that we have suggested.

Before addressing that matter, it is important to note that while the AER has sought to give effect to its proposed capital expenditure incentive scheme by preventing a share of capital expenditure from being rolled into the RAB, similar payoffs could be created through an efficiency benefit sharing scheme. It is noted that the AER has justified a 'stranding factor' of 40 per cent on the basis that this would generate the same payoff that would result if a return was not provided on the investment for five years, *as would be the result under an efficiency benefit sharing scheme*. Thus, applying the AER's own analysis, the AER's scheme could have been expressed in terms of an efficiency benefit sharing scheme by:

- including all capital expenditure in the regulatory asset base; and
- where the NSP had underspent in aggregate against the forecasts, apply a zero 'benefit share'; but
- to the extent the NSP had overspent in aggregate against the forecasts, apply a negative 'benefit share' that is equal to the annual financing cost on that surplus capital expenditure for the five year regulatory period.

5.2.2. Incentive effects of the AER's proposed capital expenditure incentive scheme

Before assessing the AER's proposed scheme against the criteria for an efficiency benefit sharing scheme, we make some general observations on the incentives that are created.

First, as noted already above, the incentives for cost minimisation will vary according to the NSP's confidence as to whether or not it expects to overspend over the regulatory period. It is difficult to speculate what this may imply in practice. We observe, however, that there is no basis for having the incentive for improvements changing over time in the absence of changes to factors like the strength of incentives to minimise operating expenditure.

Secondly, under both cases where the NSP expects to overspend or underspend, the incentive rate will decline over the regulatory period as is the case under the current scheme. Accordingly, for these cases, a key problem with the current scheme will continue. That is, incentives to alter the timing of capital expenditure will continue, the incentive to pursue efficiency improvements will decline over time and inefficient substitution between operating and capital expenditure may continue to be encouraged. Moreover, it is possible for some

NSPs that the decline in the incentive will decline even faster over the regulatory period (for example, if the NSP's confidence that it will underspend increases over the period), although the reverse could also occur.

Thirdly, the incentive power that would be created for entities that expect to overspend would be extremely high at the commencement of the regulatory period (minimum rate of 53.8 per cent if depreciation is excluded, 80.6 per cent for an asset with a 7 year life) and remain high even in the last year (40 per cent in all cases). Notably, this incentive power will be higher than that which applies to operating expenditure in all years (where the incentive power is in the order of 30 per cent, depending on the discount rate applied). Accordingly, for NSPs that expect to overspend, the scheme would create incentives inefficiently to substitute away from capital expenditure towards operating expenditure in all years of the regulatory period, with these incentives particularly strong early in the regulatory period.

Fourthly, where entities expect to overspend, strong incentives would be created to avoid capital projects even where they come at the expense of service performance. The incentive power would be higher than currently exists in distribution service performance incentive schemes. Moreover, if applied to transmission, investment would be discouraged in any areas where there were potential gaps in service incentives or obligations (for example, in projects that are not driven by a reliability obligation).

Fifthly, the scheme does not provide entities that expect to underspend overall with an incentive to minimise cost in the last year of the regulatory period. Accordingly, a key shortcoming with the current scheme would remain.

5.2.3. Assessment against the criteria for a well-functioning capital expenditure scheme

It follows from a cursory assessment of the AER's scheme against the existing, mandated criteria for a capital expenditure efficiency benefit sharing scheme that the AER's scheme falls short against those criteria. Moreover, an assessment against our expanded set of criteria reinforces this conclusion.

First, the scheme is asymmetric (penalising losses without rewarding gains) and so is inconsistent with the principle that both gains and losses should attract an incentive reward or penalty. As discussed in chapter 4, two consequences flow from this:

- first, the asymmetry of the scheme means that the behaviour of only the NSPs that expect to overspend would be influenced by the scheme, thus failing to correct the current low powered scheme for the remainder of the NSPs. We observe that efficiency would be advanced more broadly if all NSPs had greater financial incentives to strive for capital expenditure efficiencies; and
- secondly, the application of an asymmetric scheme with no other measures implies that NSPs would not be expected to recover their efficient cost (that is, when averaged across the range of possible events that could occur over the regulatory period), thus creating a material risk that the Revenue and Pricing Principles in the NEL would not be met. Our assumption here is that random events may occur that either raise or reduce the expenditure requirements over the regulatory period. With a symmetric scheme, the benefits anticipated from positive events would be expected to offset the losses that

would occur from negative events; however, if the scheme is asymmetric, the prospect of positive outcomes is reduced, while the possible negative outcomes are maintained. While it would be possible to put in place other measures to compensate NSPs for this asymmetry and thus to continue to meet the Principles, creating a symmetric scheme would remedy this matter while also improving the incentive properties of the scheme.

Secondly, it is also clear from the discussion above that the scheme does not provide a continuous incentive for efficiency gains. Rather, if the NSP expects to overspend in aggregate over the regulatory period, the incentives for efficiency still decline in power. In addition, the incentive power would also change as an NSP's confidence as to whether it would overspend changes. Lastly, where the NSP expects to underspend, the falling incentive rate that is a factor in the current regime – including a financial indifference to the level of expenditure in the last year of the regulatory period – would remain.

Moreover, additional issues with the AER's proposed scheme arise when assessed against the broader discussion of the design of incentive schemes that we presented in Chapter 4. In particular, we note the following.

- *Choice of incentive power* – we have argued that the incentive power of the scheme should be determined after a consideration of the potential benefits to customers, the operation and completeness of other incentive schemes, and service obligations and risk, itself a function of the characteristics of the NSP's expenditure. Two problems emerge on this basis.
  - First, the incentive power under the AER scheme for NSPs that expect to overspend has the potential to be materially out of balance with other incentive schemes and service obligations, and so encourage inefficient behaviour; and
  - Secondly, we have argued above that flexibility in the incentive power should exist to account for differences across sectors, and possibly also across NSPs, rather than preset (in a manner) for all NSPs as the implied by the AER's proposed scheme;
- *Minimising risk and proper measurement of efficiencies* – we have also argued above that measures should be implemented where practicable to minimise the effect of exogenous events on the measured efficiency gains, and also to ensure that efficiencies are properly measured. The AER's scheme does not contemplate such measures (apart from the greater use of contingent projects) – this has the potential to create more risk than is desirable, and also to create incentive problems that have not been identified in the analysis above.

6. A capital expenditure incentive 'straw man'

6.1. Proposal for an efficiency benefit sharing mechanism

Given that the Rules for distribution already provide the discretion for the AER to introduce an efficiency benefit sharing scheme for capital expenditure, this form of incentive mechanism is an appropriate starting point. It is also noted that creating capital expenditure incentives through an efficiency benefit sharing scheme would also mirror the treatment of operating expenditure and service performance incentives.

Under this mechanism, all of the capital expenditure would be included in the regulatory asset base, and the desired incentives would be created by adding an increment or decrement to the revenue requirement in the next regulatory period. As noted already above, adjusting the rules about 'roll in' (as the AER has proposed) and an 'efficiency benefit sharing scheme' (as proposed here) are alternative mechanisms for providing incentives for capital expenditure efficiency, and these mechanisms can be structured to deliver identical outcomes.

Efficiency benefit sharing schemes had previously been implemented by the Essential Service Commissions of Victoria (**ESCV**) and South Australia (**ESCOSA**), who in turn drew on the schemes that have applied for numerous regulatory periods in the United Kingdom for water and electricity (noting that Ofgem is proposing for the next reviews to change its schemes again so as not to distinguish between operating and capital expenditure). The key features of these schemes were as follows:

- a capital expenditure efficiency gain was treated as a reduction in capital expenditure. Implicitly, it was assumed that a reduction in expenditure in one regulatory period would have no effect on the expenditure needs in future periods (that is, expenditure reductions resulted from projects being avoided completely or done at lower cost);
  - it is noted for completeness that, for operating expenditure, an efficiency gain was a reduction in the recurrent level of expenditure, but that an expenditure reduction was assumed to continue in perpetuity;
- businesses gained a positive reward for spending less than the benchmark and a penalty for spending more than the benchmark. Note that in terms of the discussion above, this determined the income levels – reducing expenditure always increased income, although this could be a reduction in a penalty rather than an increase in a reward; and
- the 'benefit' or 'penalty' received from reduced capital expenditure was assumed to be a reduction in the financing costs (return on assets only if depreciation is excluded from the scheme, as was the case in the previous Australian schemes). The 'years' of benefit or penalty received from an expenditure reduction in a given year within the regulatory period were counted, and a carry-over of that benefit was applied in the next period so that the same number of 'years' of benefit or penalty were provided irrespective of the year in which the gain was made, mirroring the treatment of operating expenditure in the EBSS.

Under the ESCV scheme the incentive power of the scheme (also referred to the sharing ratio between businesses and consumers) was a function of the carry-over period and the discount rate. Therefore, an increase or decrease in the power of the incentive was provided by

lengthening the number of years of carry-over. As a consequence, the scheme provides a discontinuous mechanism for adjusting the incentive power.

Ofgem applied a very similar scheme, but calculated the carry-over amount in a more flexible manner that permitted the choice of any incentive power, which is the mechanism that we would propose. The Ofgem approach involved calculating directly the total benefits created for society in a regulatory period (in present value terms), determining the benefit already received during the regulatory period, and then providing a carry-over so that the target share is provided. An identical outcome as the ESCV method could be provided by selecting an incentive power of 32.62 per cent (assuming a real WACC of 7.5 per cent), but any other incentive power could also be selected.

The following figure provides a worked example of the original ESCV scheme and the flexible carry-over mechanism in operation to illustrate this point. The calculation steps in the Ofgem representation are as follows:

1. First, identify the benefit (cost) to society from any underspend (overspend) during the regulatory period compared to the regulator's forecasts. This is just the present value of the difference between forecast expenditure and actual expenditure (all present values have been calculated as at the first day of the new regulatory period and so, technically speaking, the values are 'future values' not 'present values').
2. Secondly, identify the intended share to the NSP of this benefit, which is the sum calculated above multiplied by the incentive rate. The incentive rate in this instance can be any number determined as appropriate.
3. Thirdly, identify the benefit that the NSP already received during the first regulatory period. This is just the reduction in the annual financing cost (which has been expressed here as the accumulated reduction in the RAB in each year multiplied by the WACC), calculated as a present value.
4. Fourthly, calculate the carry-over required to deliver the intended share, which is just the difference between (2) and (3).This amount is simply added to the revenue requirement of the next regulatory period.

Capital expenditure incentives

Target Share	33%
WACC (pre tax real)	7.50%

ESC "capex efficiency carry over" representation

Year	1	2	3	4	5	6	7	8	9	10
Forecast	100	100	100	100	100					
Actual	85	95	95	90	105					
Underspend	15	5	5	10	-5					
Annual financing benefit	1.13	0.38	0.38	0.75	-0.38					
Y1 benefit	1.13	1.13	1.13	1.13	1.13					
Y2 benefit		0.38	0.38	0.38	0.38	0.38				
Y3 benefit			0.38	0.38	0.38	0.38	0.38			
Y4 benefit				0.75	0.75	0.75	0.75	0.75		
Y5 benefit					-0.38	-0.38	-0.38	-0.38	-0.38	
Benefit/Carry over	1.13	1.50	1.88	2.63	2.25	1.13	0.75	0.38	-0.38	0.00
Discount factor (to end of yr 5)	**1.385**	**1.288**	**1.198**	**1.115**	**1.037**	**0.964**	**0.897**	**0.835**	**0.776**	**0.722**
Amount to be carried over to next period						1.13	0.75	0.38	-0.38	0.00
Total Carry Over (PV)	1.78									

Ofgem "target share" representation

Benefit created					
Annual underspend	15.00	5.00	5.00	10.00	-5.00
Total underspend (PV)	39.16				
Target share of underspend (PV)	12.77				
Benefit already received					
Cumulative underspend	15.00	20.00	25.00	35.00	30.00
Financing benefit from under(over)spend	1.13	1.50	1.88	2.63	2.25
Total benefit already received (PV)	11.00				
Additional benefit required (PV)	1.78				

The calculation here shows that the flexible carry-over mechanism would deliver the same outcome as the ESCV mechanism by choosing an incentive power of 32.62 per cent, although any alternative ratio could be selected. This ability provides scope for the power of the capital expenditure scheme to be altered based on a number of characteristics, including providing a balanced package of incentives, or to take the individual circumstances of the businesses into account, such as their capacity to control efficiency improvements or their appetite for risk.

6.2. Comparison with the AER scheme

There are some elements of consistency between the scheme that is proposed here and the AER's proposed scheme, but also important areas of difference.

The basic calculation – that a 'rate' would apply to the total quantity of capital expenditure compared to the regulatory forecast for the period – is common between the schemes (with the AER choosing to mandate a rate of 40 per cent). The key differences are that:

- *the scheme proposed here is based on the difference in the present value of actual and forecast expenditures rather than the simple sum* – and so provides a better measure of efficiency gain created. Allowing for the time value of money when assessing efficiency gains is also essential for the creation of a constant incentive rate (together with the point below);
- *the scheme proposed here takes account of the benefits already received during the period (which is absent from the AER's proposed scheme)* – which is essential for a constant rate of incentive to be provided;

- *the scheme proposed here is symmetric (whereas the AER scheme is asymmetric)* – which is essential for the scheme to provide incentives to all firms, rather than just those who expect to overspend; and
- *the discussion below addresses implementation issues* – that are common to both schemes, but which the AER has not identified.

6.3. Implementing the capital expenditure efficiency benefit sharing scheme

Following from the discussion in section 4.2, there is a range of implementation issues that would need to be addressed in order to give effect to the 'straw man' described above. We note here for completeness that these issues would include determining at least the following matters:

- the power of the incentive scheme, having regard to: customer benefits; the desirability of aligning the incentive rates from different incentive schemes the need to have regard to the effectiveness of regulatory measures to ensure service performance; and the risk that the scheme would create. Importantly, the incentive rate that is determined after considering these factors may well be different between sectors and NSPs;
- whether and how the forecasts of capital expenditure should be varied before calculating the efficiency benefits to take account of changes in exogenous events, and defining a mechanism to achieve this;
- whether other mechanisms are justified to ameliorate or limit the risk that would be caused by the scheme; and
- other mechanisms to ensure that the measured capital expenditure efficiency benefits are as close a proxy as possible to the actual efficiency benefits.

6.4. Differences between electricity distribution and transmission and the implications for a capital expenditure incentive scheme

One implication of our discussion in Chapter 4 of the factors relevant to the design of a capital expenditure incentive scheme, and as summarised again above, is that the optimal scheme will depend upon the relevant facts and circumstances. In particular, the breadth and power of incentives with respect to service performance, and the breadth of service related obligations, are a key consideration when selecting the incentive rate for capital expenditure efficiency. This is because care is required to ensure that the incentives provide to minimise capital expenditure do not merely encourage a reduction in service performance that is inefficient. The nature of the projects that are undertaken will also affect the risk that may be created by strengthening the incentives with respect to capital expenditure, with the potential for windfall gains and losses expected to be higher if projects are 'lumpier' and whose timing is dictated by uncertain, exogenous factors (like demand growth). This fact is also relevant to the selection of the incentive rate as well as the importance of including mechanisms within the scheme to ameliorate this risk. Moreover, the characteristics of the typical project are also relevant to the design of mechanisms to identify where projects are either advanced or deferred between regulatory periods.

In this regard, we note that there are inherent differences between transmission and distribution service provision that would be expected to have implications for the detailed design of the schemes and, in particular, to warrant elements of the scheme being different between the transmission and distribution sectors.

By way of example, we note that one of the important roles that transmission performs is to provide access to the generation sector and to undertake projects that deliver 'market benefits' – which include transmission projects that are undertaken to reduce the costs of generation. These types of project are different from typical distribution projects (which principally are directed to ensuring reliability of supply to final customers) and for which there may not be complete coverage with respect to service incentives and obligations. In addition, transmission capital expenditure tends to be more dominated by a small number of very large projects than for distribution, thereby affecting the risks that may be created – and hence need to be addressed – in the design of the incentive scheme.

Lastly, we note that the AEMC's parallel Transmission Framework Review is addressing matters that are relevant to the design of a capital expenditure incentive scheme for transmission. One of the key issues for that review is the interaction between transmission and generation, including the breadth of the incentive arrangements applying to transmission. Accordingly, further detailed development of NSP capital expenditure incentive schemes may need to consider these differences expressly, having regard to the outcomes of the Transmission Frameworks Review, among other matters.

7. Conclusions

The conclusions that we have reached in this report for the questions that we have sought to answer are set out below.

7.1. Are there deficiencies in the Rules in relation to capital expenditure incentives that should be addressed?

We agree with the AER that the incentives for capital expenditure efficiency are imperfect under the current regime. In particular, we note that NSPs currently have an incentive to alter the profile of capital expenditure to spend less in the early years of a regulatory period and more towards the end. In addition, the incentive to strive for efficiency gains declines during the regulatory period and an incentive to substitute capital projects for operating expenditure may also exist late in the period. Lastly, the inclusion of depreciation in the current incentive scheme implies that the power of the scheme differs according to the life of the project in question, being higher for shorter lived assets.

However, in our opinion the AER has overstated the potential for NSPs to have an incentive to increase their spending (rather than being financially indifferent to the level of spending in the last year of the period). We observe that for NSPs to have an incentive to increase their expenditure, there would need to be an expectation that the regulatory WACC in future regulatory periods would exceed that future cost of capital. Any difference between the current regulatory WACCs and the true WACC – which are affected by the wedge between current spot costs of debt and embedded costs – would not affect behaviour.

In addition, we also disagree with the objective the AER has set out for its scheme, which would appear to be to encourage NSPs to spend no more than the regulatory expenditure allowance for the regulatory period in question. This objective places an inappropriate degree of importance on the regulatory allowance. Any forecasts quickly become out of date soon after being made. In addition, the AER's belief that its forecast would reflect the efficient level of expenditure is inconsistent with the underpinnings incentive regulation, where regulators are assumed not to be omniscient and to be capable of dictating efficient outcomes, so that instead financial incentives are created to encourage NSPs to reveal the efficient outcomes though their behaviour.[36]

7.2. What is the appropriate degree of prescription on this matter in the rules?

We present an analytical framework for assessing the appropriate split between codifying matters in the rules and providing discretion for the AER. We conclude that the AER's proposal to codify the operational details of its proposed incentive scheme in the rules results in an inappropriate degree of prescription. Out findings against the factors that flow from our analytical framework are as follows:

[36] We also observe that if the AER's forecast was a (statistically) unbiased forecast of expenditure, then there would be an equal chance of NSPs needing to spend more or less than that amount.

- *Is the proposal policy or implementation?* – the rule changes proposed by the AER would implement the operational detail of the scheme, rather than to provide policy guidance to the AER. This level of detail is not inappropriate where a scheme is settled and implementation issues are unlikely to emerge; however, since the AER's proposed scheme is new and as yet untested, this is unlikely to be the case;
- *Should there be differences across NSPs?* – we conclude elsewhere in the report (summarised below) that aspects of the scheme should be permitted to vary across NSPs (between sectors and possibly also between NSPs). In particular, the incentive power of the scheme (which under the AER's proposed scheme is a function of a number of parameters including the 60 per cent factor) should be sensitive to (amongst other things) differences in the strength and completeness of service related incentives and obligations and the character of projects that are undertaken;
- *Would the scheme need to be refined over time?* – we also observe elsewhere in the report that a well-designed incentive scheme for capital expenditure would require a number of complex matters to be addressed to ensure, amongst other things, that efficiencies are properly measured and the risk caused by the scheme is managed to the extent practicable. These would require refinement over time. We note that the same issues would be likely to arise with the AER's proposed scheme and provide pressure for future rule changes; and
- *Interaction with other parts of the regulatory regime* – we also observe in our report that a well-designed incentive scheme for capital expenditure would have a number of interactions with other parts of the regulatory regime. Most notably, the incentive power for capital expenditure efficiencies should be selected such that it is consistent with, amongst other things, the strength of incentives for operating expenditure efficiencies and incentives applied to service performance. In addition, we note that measures may be required to ensure that efficiency gains are properly measured, which may need to be sensitive to factors such as how expenditure requirements were forecast.

We observe that a preferable means of implementing a capital expenditure incentive scheme would be for this to be empowered by the Rules, and with appropriate criteria developed. We note that the AER already has the discretion to implement a capital expenditure incentive scheme through the 'efficiency benefit sharing scheme' provisions for distribution.

In contrast, we consider that the AER's other proposal to provide itself with a general power to make new incentive schemes without the new schemes being authorised by the Rules (and with appropriate criteria and safeguards developed) provides the AER with an inappropriately wide scope to determine important areas of policy, being those matters in relation to which service providers should be provided with incentives.

7.3. Appropriate criteria for the development of a capital expenditure incentive scheme

We have analysed at some length the issues that need to be addressed with the development of a well-designed capital expenditure incentive scheme, and note that these include the following:

- the specification of the overall objective of the scheme. This is the promotion of the NEL objective, which we conclude implies that expenditure minimisation should be encouraged (for a given level of service performance);
- a decision on how efficiency gains and losses are to be measured, which we recommend be undertaken by comparing the regulatory forecasts to actual expenditure (except where adjustments have been authorised in advance);
- the design of a scheme that delivers, to the extent practicable, a constant and continuous incentive for cost reduction across the regulatory period and symmetry in 'payoffs' under the scheme;
- a selection of an appropriate incentive power for the scheme, which needs to take account of:
  - the benefits that customers are expected to receive under the scheme
  - the power of the incentives created by related incentive arrangements and the breadth and coverage of 'opposing' regulatory obligations
  - the level of risk that the scheme may generate (after having taken into account how risk can be ameliorated within the scheme), but with:
    - the scheme implemented in a manner that adjusts for the impact of material exogenous events to the extent practicable, and
    - an explicit consideration given of whether quantitative limits should apply to the outcomes under the scheme;
- an assessment of whether measures should be implemented to ameliorate the risk that may be caused by the scheme, which may include:
  - excluding types or classes of projects from the scheme (beyond those covered by contingent projects);
  - adjusting forecast or actual expenditure to take account of the effect of exogenous events, with the adjustment mechanism defined in advance; and/or
  - placing quantitative limits on the outcomes that may flow from the scheme;
- considering further refinements to how an efficiency gain is measured to ensure as close a proxy as possible to true gains, addressing such matters as the definition of operating and capital expenditure and the identification and treatment of projects that move between regulatory periods (either deferred or advanced); and
- the implementation costs associated with the scheme.

We also observe that the scheme should be consistent with the Revenue and Pricing Principles of the NEL.

We assessed the current rules criteria that would apply if the AER proposed an efficiency benefit sharing scheme (while this is an alternative mechanism for delivering capital expenditure incentives, equivalent payoffs can be created). Our conclusion is that much of the guidance under the existing rules provisions is appropriate, and need not prevent the

implementation of an appropriate scheme. However, we identify a number of refinements that could be made to the criteria, the most important of which are as follows:

- *overall objective of the scheme* – a change from 'fair sharing' of gains to the promotion of economic efficiency;
- *selection of the incentive rate* – the current criteria would be improved if the AER was required to make a transparent decision upon the incentive power of the scheme, and to be directed to the factors that should be brought to bear on that decision. While some of these factors are present in the current criteria (namely customer benefits) the factors are incomplete and lack context. Refining the criteria in this matter would, amongst other things, ensure that important differences across NSPs or sectors are reflected in the design of the scheme;
- *mechanisms to ameliorate / manage risk* – the current criteria do not require an explicit consideration of measures to reduce or limit the risk created by the scheme, which is an important omission. Requiring an explicit consideration of risk (and measures to limit this) would ensure that relevant differences between NSPs (either individually or between sectors) were considered explicitly and built into the design of the scheme; and
- *other mechanisms/adjustments to improve the scheme* – the current criteria would also be improved by authorising additional mechanisms or adjustments to the measurement of efficiencies where necessary to ensure that the measured efficiency gains are a better proxy for actual efficiency gains. The current rules refer to 'capitalisation policy' which is one such issue, but this is incomplete. At the same time as authorising such mechanisms, the criteria should require that the method for adjusting measured efficiencies be defined prior to the period in question.

7.4. Assessment of the AER's proposed capital expenditure incentive scheme

Our findings from our analysis of the incentive properties of the AER's proposed scheme are as summarised below:

- first, the incentives for cost minimisation will vary according to an NSP's confidence as to whether or not it expects to overspend over the regulatory period. It is difficult to speculate what this may imply in practice. We observe, however, that there is no basis for having the incentive for improvements changing over time in the absence of changes to factors like the strength of incentives to minimise operating expenditure.
- secondly, under both cases where the NSP expects to overspend or underspend, the incentive rate will decline over the regulatory period as is the case under the current scheme. Accordingly, for these cases, a key problem with the current scheme will continue. Moreover, it is possible for some NSPs that the decline in the incentive will decline even faster over the regulatory period (for example, if the NSP's confidence that it will underspend increases over the period) although the reverse could also occur.
- thirdly, the incentive power that would be created for entities that expect to overspend would be extremely high at the commencement of the regulatory period (minimum rate of 53.8 per cent if depreciation is excluded, 80.6 per cent for an asset with a 7 year life) and remain high even in the last year (40 per cent in all cases). This incentive power will be

higher than what applies to operating expenditure in all years (where the incentive power is in the order of 30 per cent, depending on the discount rate applied) and so create incentives inefficiently to substitute away from capital expenditure towards operating expenditure in all years of the regulatory period. Incentives to avoid capital projects – even at the expense of service performance – are likely, particularly where there are 'gaps' in service incentives or obligations (for example, transmission projects that are not driven by a reliability obligation).

- fourthly, the scheme does not provide entities that expect to underspend overall with an incentive to minimise cost in the last year of the regulatory period. Accordingly, a key shortcoming with the current scheme would remain.

Our view is that the scheme would not meet the current criteria for a capital expenditure efficiency benefit sharing scheme for distribution, and an assessment against our expanded set of criteria reinforces this conclusion. In particular:

- the scheme is asymmetric (applying a greater penalty for overspending NSPs), one issue of which is that it would be difficult to satisfy the requirement under the Revenue and Pricing Principles for NSPs to have a reasonable opportunity to recover at least efficient cost; and
- the scheme would not provide a continuous incentive, and indeed many of the shortcomings of the current arrangements would remain.

When assessed against our expanded criteria:

- the incentive power of the scheme where an NSP expects to overspend risks being materially out of balance with other incentive arrangements and regulatory obligations, with the potential to encourage inefficient behaviour. Moreover, locking in (in a manner) an incentive power that is common across all NSPs and sectors is inappropriate; and
- the absence of measures to ameliorate risk and to ensure a proper measurement of efficiency gains has the potential to create more risk than is desirable, and also to create incentive problems that have not been identified in the analysis above.

We have proposed a 'straw man' to outline the features of a scheme that could meet the criteria in order to stimulate consideration of the issue, although substantial matters would need to be resolved to derive a scheme that is ready to implement.

Appendix A – Authors

Jeff Balchin is a Principal in the PwC Economics and Policy team, previously being a director of the Allen Consulting Group and prior to that in various positions in the Commonwealth Government. Jeff has over 17 years of experience in relation to economic regulation issues across the electricity, gas, airports, ports and water industries in Australia and New Zealand. He has been an adviser to governments, regulators, customers and infrastructure providers on the design, economic interpretation and application of economic regulation, which has included key roles in many of the landmark matters.

Catherine Dermody is a Partner in Gilbert + Tobin's Competition & Regulation group. Catherine provides advice in relation to electricity, gas and telecommunications regulation, and has advised both regulators and regulated entities in regulatory determination processes and merits reviews of those processes. Prior to working at Gilbert + Tobin, Catherine spent six years at the Australian Competition and Consumer Commission involved in infrastructure regulation and two years as a legal advisor at the Office of Gas and Electricity Markets in the United Kingdom.

Greg Houston is a Director of NERA Economic Consulting, based in Sydney. He has twenty five years' experience in the economic analysis of markets and the provision of expert advice in litigation, business strategy, and policy contexts. Greg's work in the Asia Pacific region principally revolves around the activities of the enforcement and regulatory agencies responsible for competition, economic regulation and securities market matters, many of whom also number amongst his clients. In December 2005 Greg was appointed by the Hon Ian Macfarlane, then Minister for Industry, Tourism and Resources, to an Expert Panel to advise the Ministerial Council on Energy on achieving harmonisation of the approach to regulation of electricity and gas transmission and distribution infrastructure in Australia. During the 2005-06 period Greg also advised both the AEMC and the Ministerial Council on Energy on the development of the rules now applying to both the transmission and distribution network service providers.

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Attachment C

Joint Report

Gilbert + Tobin Lawyers
NERA Economic Consulting and
pwc

Assessment of the AER's Rule Change Proposal for Forecast Expenditure

Assessment of the AER's Rule Change Proposals for Forecast Expenditure

A joint report for the
Energy Networks Association

8 December 2011

Project Team

Jeff Balchin, Principal of PwC Australia

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1. Introduction

This report has been jointly prepared by Jeff Balchin, Catherine Dermody and Greg Houston at the request of the Energy Networks Association (ENA), for submission to the Australian Energy Market Commission (AEMC). Its subject is the expenditure forecast elements of the rule change proposal put forward in September 2011 by the Australian Energy Regulator (AER) for decision by the AEMC. This is one of three separate joint reports prepared for the ENA, each addressing particular aspects of AER's rule change proposal. In this report, the ENA has asked us to assess the extent to which the available evidence is consistent with the analysis and conclusions presented by the AER in those aspects of its rule change proposal that concern the forecast expenditure to be included in a regulatory determination. Our specific terms of reference are as follows:

"Prepare a joint expert panel external report that:

1. briefly summarises the history behind the development of the existing expenditure criteria, ie, PC gas review, PM's Expert Infrastructure Task Force, MEC Expert Panel and AEMC Chapter 6A review, including who is accountable for outcomes (eg, NSP);
2. demonstrates through a systematic analysis of all relevant decisions the way in which the AER has in fact approached the process of approving/determining capex and opex forecasts over the past five years, including the use of benchmarking; and
3. tests whether the AER has in fact been constrained in the manner it claims to be – that it is essentially forced to accept forecasts put forward, or alternatively that, if it has determined a forecast is too high, all is can do is adjust the forecast to bring it within the opt of the range of value that would meet the requirements of the rules."

1.1. Authors and expertise

The authors of this report are: Jeff Balchin, Principal of PwC Australia; Catherine Dermody, Partner of Gilbert + Tobin; and Greg Houston, Director of NERA Economic Consulting. Greg and Jeff are both economists with substantial expertise in the economic regulation of network infrastructure services, while Catherine is a regulatory lawyer with deep expertise in the energy sector. This particular report has also been co-authored by Ann Whitfield, Associate Director of NERA Economic Consulting, also an economist with substantial expertise in regulatory matters. A short biography for each of Jeff, Catherine, Greg and Ann is attached as appendix A.

The authors also wish to acknowledge the substantial contributions of Tom Graham, Analyst, NERA Economic Consulting, and Sarah Turner, Research Officer, NERA Economic Consulting, in the preparation of this report.

1.2. Structure of this report

The remainder of this report is structured as follows:

- section 2 sets out the deficiencies which the AER highlights in its rule change proposal in relation to the current Rules for determining expenditure estimates;

- section 3 provides a summary of how the current National Electricity Rules ('the Rules') operate in relation to the role of the AER in assessing capital and operating expenditure forecasts and its ability to make a substitute expenditure forecast (under both Chapter 6A and Chapter 6 of the Rules). It also briefly sets out the AEMC's considerations at the time of its Chapter 6A Rule determination in relation to the potential for a systemic upward (statistical) bias in estimates of expenditure incorporated in regulatory determinations;

- section 4 then assesses the reality of each of the deficiencies which the AER contends exists with the current Rules, in the light of the empirical evidence from each of the AER's determinations made under the current Rules, as well as relevant Australian Competition Tribunal ('Tribunal') decisions; and

- section 5 summarises our conclusion that the deficiencies which the AER contends exist with the current Rules are not supported by the evidence from actual experience over the last five years.

Appendix B presents summary tables in relation to our assessment of each of the AER's twelve final expenditure determinations made under the current Rules for the distribution network service providers (DNSPs), plus its recent draft determination for Aurora Energy. Appendix C provides the equivalent summary for the four final determinations the AER has made under the current Rules for the transmission network service providers (TNSPs), plus its recent draft determination for Powerlink.

2. Problems Identified by the AER

The AER in its rule change proposal has identified what it sees as a series of deficiencies in relation to determining capital and operating expenditure forecasts for both DNSPs and TNSPs under the current Chapter 6 and Chapter 6A Rules.

2.1. Systemically inflated forecasts (Chapter 6 and Chapter 6A)

The AER's key contention is that the current 'reasonably reflects' test for assessing capital and operating expenditure for both TNSPs (under Chapter 6A) and DNSPs (under Chapter 6) allows network businesses to propose 'the highest possible forecast',[1] and leaves the evidentiary burden on the AER to prove that the proposed forecast is not efficient and not prudent. The AER contends that it is restricted in its ability to determine a substitute expenditure forecast, and in particular is excluded from setting a different, lower forecast that would also satisfy the revenue and pricing principles in the National Electricity Law (NEL).[2] The AER contends that the prescription in the current Rules places 'significant limitations on the regulatory judgement that can be exercised relative to what was previously available to jurisdictional regulators and the ACCC'.[3]

As a consequence, the AER contends that the current framework in the Rules exposes customers to the risk of 'systemically inflated' forecasts[4] and has in fact resulted in inflated forecasts of both capital and operating expenditure being reflected in the AER's determinations.[5] The AER contends that these inflated forecasts have been a factor in the price rises faced by consumers.[6]

2.2. Additional restrictions on the AER's analysis under Chapter 6

The AER contends that the problem of systemically inflated forecasts (which applies equally to Chapter 6 and Chapter 6A) is further compounded in relation to the determination of forecast amounts for DNSPs under Chapter 6 (specifically clause 6.12.3(f)),[7] which requires that:

- the AER only amend a DNSP's forecast for both capex and opex 'to the minimum extent necessary' for it to be approved under the Rules; and
- any substitute forecast for either capex or opex determined by the AER must be based on the DNSP's current proposal.

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1 AER, *Economic regulation of transmission and distribution network service providers: AER's proposed changes to the National Electricity Rules*, September 2011, page 25.

2 *ibid*.

3 *ibid*.

4 AER, *op cit*, page 28.

5 AER, *op cit*, page 12.

6 AER, *op cit*, page 2.

7 AER, *op cit*, page 25.

The AER points to the first of these provisions as exacerbating the problem of systemically inflated forecasts (discussed above). The AER contends that the provision only allows the AER to amend the DNSPs' forecasts to bring them back to the top of the range that the AER is satisfied 'reasonably reflects' the required expenditure.[8]

The AER contends that the second provision 'locks the regulator into forming a substitute in the same manner as determined by the DNSP in their proposal'.[9] Since most DNSP's expenditure forecasts are based on a bottom-up approach, the AER contends that this means that it is also driven to a line-by-line analysis of expenditure forecasts. The AER contends that the requirement to undertake a line-by-line assessment of expenditure in turn has the following consequences:

- the assessment is resource intensive and includes consideration of engineering detail, which may preclude the involvement of third party stakeholders such as consumer groups;[10]
- it restricts the AER's ability to in practice conduct top-down benchmarking approaches, together with assessing matters such as the deliverability of the proposed expenditure, as it 'must be able to justify each decision to deviate from the DNSP's proposal';[11]
- since it is not realistic for the AER to examine each individual cost incurred by an NSP over a five year period, 'it is inevitable that a proportion of costs escape regulatory scrutiny';[12] and
- only assessing proposed expenditure through a bottom-up approach is inconsistent with the current incentive framework.[13]

2.3. The AER's proposed solution

In response to the deficiencies it contends exist with the current Rules, the AER has proposed the following two amendments to the Rules:

- a change to the 'expenditure test' contained in Chapter 6 and Chapter 6A that would alter the decision-rule from one pursuant to which the AER must accept a forecast if it is satisfied that the total of the forecast reasonably reflects the capital or operating expenditure criteria as relevant, to one under which the AER would determine the forecast amount that it considers would meet the efficient costs that a prudent service provider would require to achieve the capital or operating expenditure objectives as relevant[14]; and

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8 AER, *op cit*, page 29.

9 AER, *op cit*, page 29.

10 AER, *op cit*, page 29.

11 AER, *op cit*, page 26.

12 AER, *op cit*, page 30.

13 AER, *op cit*, page 30.

14 The AER's proposed changes are to clauses 6.5.6(c), 6.5.7(c), 6A.6.6(c), and 6A.6.7(c) of the NER.

- removal of the provisions in clause 6.12.3(f) that the AER contends restricts its ability to form a substitute expenditure forecast in the case of DNSPs.[15]

We note that the AER's proposed deletion of clause 6.12.3(f) would in practice have implications which reach beyond the AER's substitution of expenditure values, as clause 6.12.3(f) applies to all of the constituent decisions the AER is required to make under 6.12.1.

The AER contends that this solution would allow it to determine an 'impartial forecast' and therefore more effectively balances the interests of consumers and the need for investment in electricity networks.[16] It also contends that the proposed changes would enable the AER to 'more properly scrutinise, assess and amend' NSP's proposed forecasts of required expenditure,[17] and to make greater use of benchmarking.[18]

The AER has also proposed changes to the relevant expenditure forecasting clauses in the Rules concerning the formulation of the operating (capital) expenditure criteria and operating (capital) expenditure objectives. These proposals are briefly commented on in a separate report prepared by Gilbert + Tobin as part of the ENA submission on the AER proposal.

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15 The AER is also proposing to delete 6A.13.2(b) as a consequence of the proposed changes to 6A.6.6(c) and 6A.6.7(c).

16 AER (2011), *op cit*, page 22.

17 AER (2011), *op cit*, page 22.

18 AER (2011), *op cit*, page 22.

3. Current Approach in the Rules to Determining Expenditure Forecasts

Before assessing the deficiencies the AER contends exist in relation to the operation of the current Rules for assessing expenditure forecasts, it is helpful to set out briefly:

- how the current Rules operate in this area, for both TNSPs and DNSPs; and
- the regulatory design principles adopted by the AEMC at the time the Chapter 6A Rules were developed, in relation to countering the potential for upward bias in relation to expenditure forecasts.

3.1. The 'reasonably reflects' test

As part of its draft and final decisions in relation to both TNSPs and DNSPs, the AER is required under the Rules to make decisions on the forecasts of total operating expenditure and total capital expenditure required for the forthcoming regulatory period.[19] These forecasts are then incorporated in the annual building block revenue requirement (in the case of TNSPs) or the building block determination (in the case of DNSPs).[20]

Under both Chapter 6A and Chapter 6, the NSP is required to submit forecasts of both the required operating expenditure and the required capital expenditure for the forthcoming regulatory period as part of its regulatory proposal.[21]

The AER is required to accept the operating expenditure forecast put forward by the NSP (for both TNSPs and DNSPs) if the AER is satisfied that the total of the forecast operating expenditure reasonably reflects the operating expenditure criteria, having regard to the operating expenditure factors.[22] Where the AER is not so satisfied, the Rules require the AER not to accept the forecast.[23] The operating expenditure criteria are defined in the Rules as:[24]

- the efficient cost of achieving the operating expenditure objectives (which are themselves defined in the Rules);
- the costs that a prudent operator in the circumstances of the relevant NSP would require to achieve the operating expenditure objectives; and
- a realistic expectation of the demand forecast and cost inputs required to achieve the operating expenditure objectives.

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19 6A.14.1(2), 6A.14.1(3); 6.12.1(3) and (4).

20 Specifically, forecast operating expenditure forms one of the building block components (6A.5.4(6), 6.4.3(7)); forecast capital expenditure for the regulatory period is an input in determining the expected change in the regulatory asset base over the regulatory period, which in turn is used to calculate the return on capital and depreciation building block components (6A.5.4(2)(3); 6.4.3(2)(3)).

21 6A.10.2(4) and (5); S6A.1.1; S6A.1.2; S6.1.1; S6.1.2.

22 6A.6.6(c), 6A.6.7(c); 6.5.6(c); 6.5.7(c).

23 6A.6.6(d); 6.5.6(d).

24 6A.6.6(c); 6.5.6(c).

The operating expenditure factors are also set out in the Rules.[25]

Equivalent provisions apply under the Rules for capital expenditure.[26] That is, the AER is required to accept the capital expenditure forecast put forward by the NSP if the AER is satisfied that the total of the forecast capital expenditure reasonably reflects the capital expenditure criteria, having regard to the capital expenditure factors. Where the AER is not so satisfied, the Rules require the AER not to accept the forecast.[27] The capital expenditure criteria are set out in the Rules, and are equivalent to the operating expenditure criteria set out above. The capital expenditure factors are also set out in the Rules.

It is generally recognised that there is no single, objective value for the expenditure forecasts that could be considered to satisfy the 'reasonably reflects' test in the Rules. Different people may reasonably come to different views about the level of expenditure that 'reasonably reflects' the expenditure criteria. Given that the forecasts are made in respect of a five year period it is appropriate that a decision-rule in the form of 'reasonably reflects' be adopted, since a higher degree of satisfaction would be unlikely ever to be reached. For example, the AER comments in its rule change proposal:[28]

> The expression 'reasonably reflects' recognises that there may be more than one expenditure forecast that is efficient, prudent and realistic

Similarly the Expert Panel appointed by the Ministerial Council on Energy (MCE) to advise on energy access pricing noted that:[29]

> Many of the inputs required to derive access prices cannot be estimated with precision, or pertain to future outcomes that cannot be forecast with precision. Thus there is a range (and potentially, a wide range) within which a reasonable person may consider that the relevant input may reside [..]

The Tribunal has also made similar observations:[30]

> It is axiomatic that there will be no one correct or best figure derived from a forecast that in terms of cl 6.5.6(c) 'reasonably reflects' the opex criteria – the very nature of forecasting means that there can be no one absolute or perfect figure.

In developing the Chapter 6A Rules the AEMC explicitly adopted an approach that did not require the identification of one correct or 'best' figure:[31]

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25 6A.6.6(e); 6.5.6(e).

26 6A.6.7(c) and (e); 6.5.7(c) and (e).

27 6A.6.7(d); 6.5.7(d).

28 AER, Executive Briefing, Energy Network Regulation Reform, page 2.

29 Expert Panel on Energy Access Pricing, Report to the Ministerial Council on Energy, April 2006, page 75.

30 Australian Competition Tribunal, Application by Ergon Energy Corporation Limited (Labour Cost Escalators) (No 3) [2010] ACompT 11 (24 December 2010), para 69.

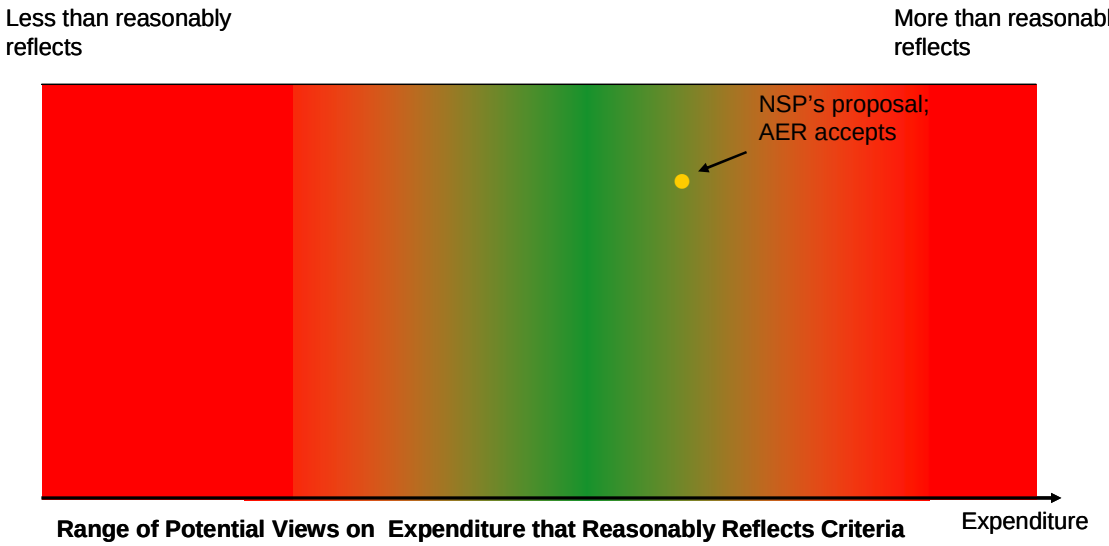
31 AEMC, Final Rule Determination (Nov 2006), page 52.

> The Commission believes that the subject of the regulation – the forecast capital expenditure and operating expenditure for substantial, highly complex and technical infrastructure for a five-year period is not a matter that is amenable to the level of precision and confidence that would enable one to sensibly say there is one correct or "best" figure. It considers that Rules that could be interpreted in that way are likely to result in a heightened risk of regulatory error. Equally the Commission does not intend that the Rules contemplate such a range of permissible outcomes that there is a risk of inherent bias toward higher amounts.

Figure 3.1 illustrates the different views that may be taken as to the level of expenditure which reasonably reflects the expenditure criteria. Reasonable people may agree on levels of expenditure that are obviously less than or obviously exceed the expenditure which reasonably reflects the expenditure criteria (indicated by the red colouring at the extremes of Figure 3.1). However there will be a number of different views as to the level of expenditure that does reasonably reflect the criteria.

Provided that the NSP's forecast reflects a value that the AER is satisfied reasonably reflects the expenditure criteria (indicated by the green colouring in Figure 3.1), the current Rules require the AER to accept that expenditure forecast in its draft or final decision (as the case may be). This situation is depicted in Figure 3.1. However it is important to recognise that there is considerable uncertainty as to the values which the AER may determine that it is satisfied reasonably reflects the expenditure criteria. In other words, *a priori* the NSP cannot know with any precision the exact bounds of the green area shown in Figure 3.1.

Figure 3.1
AER Must Accept NSP's Expenditure Proposal if it Reasonably Reflects Required Expenditure and Not Accept if it is Not so Satisfied



3.2. Ability of the AER to substitute its own expenditure forecast: Chapter 6A

Under Chapter 6A, if the AER is not satisfied that the total of the operating expenditure forecast put forward by a TNSP in its Revenue Proposal reasonably reflects the operating expenditure criteria, the Rules require the AER to reject the proposed forecast amount.[32] Similarly, if the AER is not satisfied that the total of the capital expenditure forecast put forward by a TNSP in its Revenue Proposal reasonably reflects the capital expenditure criteria, then it must not accept the TNSP's forecast.[33]

Where the AER has rejected a proposed forecast amount the AER is required to include in its draft decision or in its final decision (as the case may be) the total forecast operating expenditure and/or the total forecast capital expenditure (and the amount of that expenditure for each regulatory year) which the AER is satisfied reasonably reflects the operating (capital) expenditure criteria, taking into account the operating (capital) expenditure factors.[34]

Under 6A.13.2, if the AER's final decision is to refuse to approve an amount or value proposed by a TNSP, the AER must include in its final decision an amount or value which is:

- determined on the basis of the TNSP's current Revenue Proposal; and
- amended from that basis only to the extent necessary to enable it to be approved in accordance with the Rules.

However, 6A.13.2 also provides for an exception from this requirement (set out in 6A.13.2(b)) where the AER's decision to refuse to approve an amount or value is because it is not satisfied that the total of the forecast operating expenditure or the total of the forecast capital expenditure reasonably reflects the operating (capital) expenditure criteria. In this event, the AER is required to include in its final decision the forecast operating (capital) expenditure that the AER is satisfied reasonably reflects the operating (capital) expenditure criteria, taking into account the operating (capital) expenditure factors.[35]

Figure 3.2 depicts the AER's discretion to substitute its own expenditure forecast under Chapter 6A. In the example in Figure 3.2, the range of values which the AER is satisfied reasonably reflect the expenditure criteria is narrower those shown in Figure 3.1, with the consequence that the NSP's proposed forecast now exceeds the top of this range. The AER is therefore required to reject the NSP's proposal.

If the AER rejects a TNSP's proposal as being above the expenditure which reasonably reflects the expenditure criteria, then it is required to substitute its own view of the expenditure which it is satisfied reasonably reflects the expenditure criteria. In doing so, the AER is able to base its substitute expenditure forecast on any level which it is satisfied reasonably reflects the expenditure criteria, taking into account the national electricity

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32 6A.6.6(d).

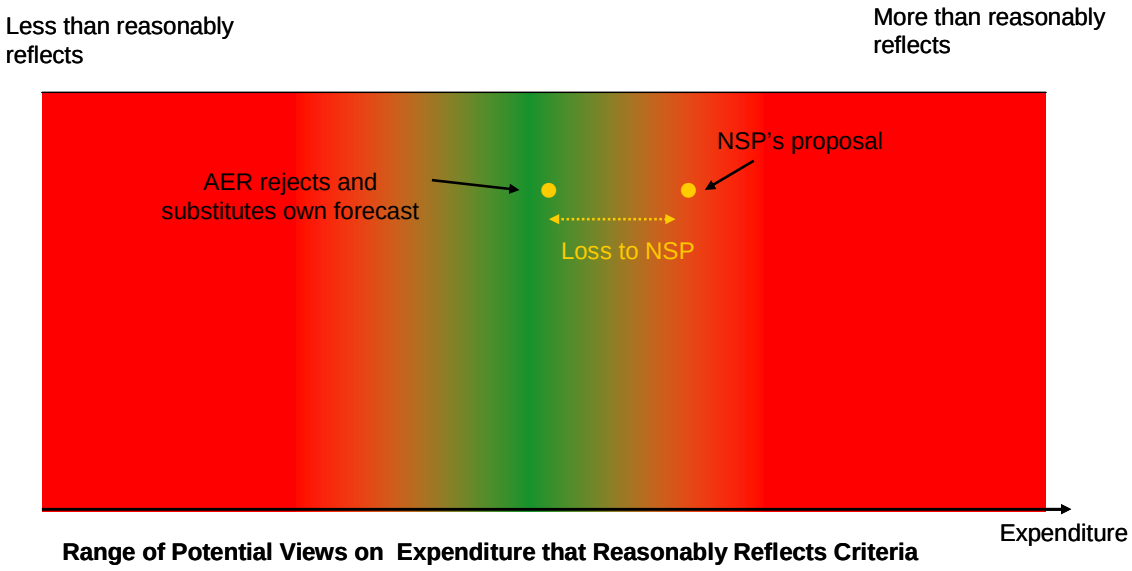
33 6A.6.7(d)

34 6A.14.1(2) and (3); 6A.13.2(b)(3) and (4).

35 6A.13.2(b)(3) and (4).

objective and the revenue and pricing principles in the NEL. This value may sit anywhere within the range of potential outcomes which it has identified reasonably reflects the expenditure criteria. That is, the AER is not restricted under the Rules from substituting a value which is below the top end of the range of values which reasonable people may consider reflect the required expenditure. Figure 3.2 highlights the potential loss to the NSP in terms of the difference between its own proposed forecast and that substituted by the AER in its determination.

Figure 3.2
The AER's Discretion to Substitute its Own Expenditure Forecast: Chapter 6A



The risk to the NSP that the AER may substitute a value for expenditure which is below the level the NSP has proposed was seen by the AEMC as a key element of the framework in providing an incentive for the business' not to submit ambit claims, and addressing the potential for systemically inflated forecasts. This is discussed further in section 3.4.

3.3. Ability of the AER to substitute its own expenditure forecast: Chapter 6

The Chapter 6 provisions applying to DNSPs are very similar to those in Chapter 6A for TNSPs. Under Chapter 6, if the AER is not satisfied that the total of the proposed operating (capital) expenditure forecast put forward by a DNSP in its building block proposal reasonably reflects the operating (capital) expenditure criteria taking into account the operating (capital) expenditure factors, then it must not accept the DNSP's forecast.[36]

Where the AER has not accepted the DNSP's forecast amount the AER is required to include in its draft or final determination (as the case may be) the total forecast operating expenditure and/or the total forecast capital expenditure which the AER is satisfied reasonably reflects the

[36] 6.5.6(d); 6.5.7(d).

operating (capital) expenditure criteria, taking into account the operating (capital) expenditure factors.[37]

Clause 6.12.3(f) also contains an equivalent provision to 6A.13.2(a), ie, that if the AER refuses to approve an amount or value proposed by a DNSP, the substitute amount or value included in the AER's distribution determination must be:

- determined on the basis of the DNSP's current regulatory proposal; and
- amended from that basis only to the extent necessary to enable it to be approved in accordance with the Rules.

However, clause 6.12.3 does not contain an explicit 'carve out' from this provision in relation to where the AER substitutes a value for forecast capital and/or operating expenditure, ie there is no equivalent clause in Chapter 6 to that in 6A.13.2(b). This has led the AER in its rule change proposal to conclude that its ability to substitute expenditure forecasts in the case of Chapter 6 is restricted. In particular the AER contends that this restriction means that it has found it necessary:[38]

> to conduct a line by line assessment in order to bring [expenditure forecasts] back into the very top of the range. This means that there is no other possible result than an estimate that is at the top of the range.

The AER's interpretation of its ability to substitute expenditure forecasts under Chapter 6 is depicted in Figure 3.3. The figure shows that under the AER's interpretation, the loss to the NSP if the AER is not satisfied that its proposed expenditure reasonably reflects the expenditure criteria is lower than it would be under the equivalent Chapter 6A Rules. This is because the expenditure forecast substituted by the AER would reflect the upper end of the range of values which the AER is satisfied (to the extent it has identified a range) reasonably reflects the expenditure criteria, rather than any lower value which the AER also may be satisfied would reasonably reflect the expenditure criteria, whilst still meeting the national electricity objective and the revenue and pricing principles in the NEL.

We discuss the AER's concern in relation to its ability to substitute expenditure forecasts under Chapter 6 in detail in section 4.2, and in particular its contention that this restriction leads to systemically inflated expenditure forecasts being reflected in determinations. However, we note here that, whilst the provisions of Chapter 6 are different from Chapter 6A, it is not clear either from public statements made by the MCE at the time the Chapter 6 Rules were developed, or from the AER's practice to date, that the AER is in fact restricted under Chapter 6 in the manner in which it contends.

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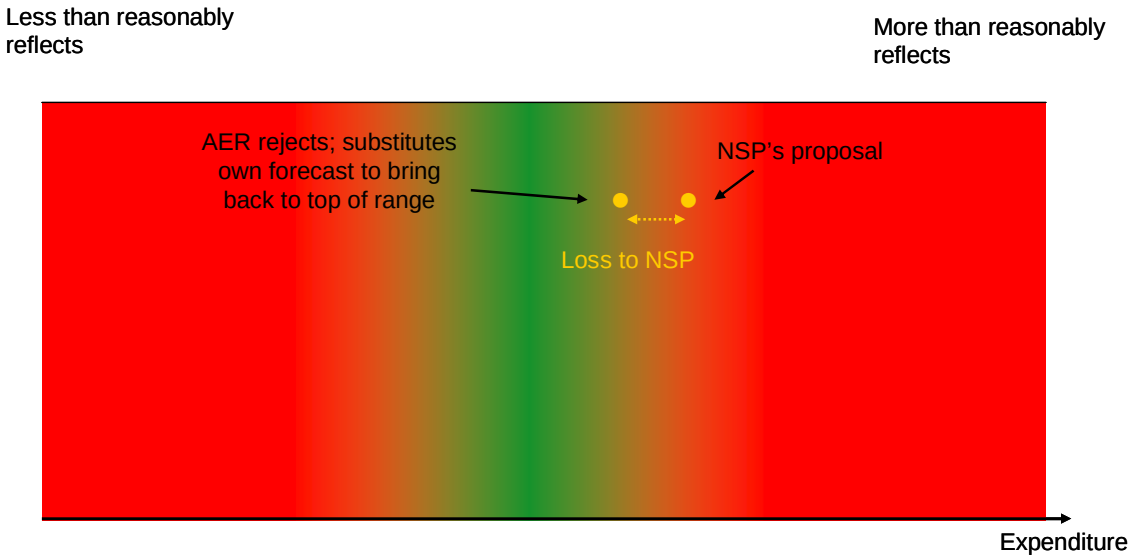
[37] 6.12.1(3) and (4).

[38] AER (2011), *op cit*, page 29.

Figure 3.3
AER's Interpretation of its Discretion to Substitute its own Forecast under Chapter 6



Range of Potential Views on Expenditure that Reasonably Reflects Criteria

There were no public statements made at the time that the Chapter 6 Rules were being developed which indicate that there was an intention to limit the scope of the AER's discretion in relation to expenditure forecasts under Chapter 6, compared to Chapter 6A. The Chapter 6 Rules were developed by the Standing Committee of Officials (SCO) on behalf of the MCE, rather than by the AEMC (who developed the Chapter 6A Rules). However, the development of the Chapter 6 Rules occurred after the development by the AEMC of the Chapter 6A Rules and in many areas reflect the approach taken in Chapter 6A. The publicly available documentation in relation to the development of the Chapter 6 Rules is limited. However there is nothing in this documentation which indicates that the MCE SCO intended to limit the AER's discretion to substitute expenditure forecasts for distribution to be less than that available to it for transmission. This is in contrast to other areas of the Chapter 6 Rules where the MCE SCO did highlight the rationale for adopting a different approach for distribution than that under Chapter 6A for transmission.[39]

Indeed in discussing the AER's ability to substitute amounts or values, MCE SCO drew a distinction between expenditure forecasts and other areas of the AER's determination, in a way which is consistent with the explicit different treatment of the substitution of expenditure forecasts under Chapter 6A:[40]

> If the AER's final decision is to refuse to approve an amount or value for annual revenue requirement, network service target performance incentive scheme parameters, efficiency benefit sharing scheme parameters, or the commencement

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[39] Specifically the differences between transmission and distribution were presented in Table 1 of the MCE SCO Report.

[40] 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 - Explanatory Material* April 2007, page 22.

> and length of the regulatory control period set out in the DNSP's regulatory proposal (or revised proposal), the AER must include in its final decision a substitute amount or value, which is determined on the basis of the regulatory proposal and amended from that basis only to the extent necessary to enable it to be approved in accordance with the Rules.
>
> If the AER's final decision is to refuse to approve an amount or value for annual revenue requirement because the AER is not satisfied that the total forecast operating expenditure reasonably reflects the operating expenditure criteria, taking into account the operating expenditure factors, the AER must include in its final decision its reasons for that decision and the forecast of operating expenditure which the AER is satisfied reasonably reflects the criteria, taking into account the factors.
>
> Similar provisions apply to forecast capital expenditure.

In practice the AER has applied the provisions in Chapter 6A and Chapter 6 in an apparently consistent manner. In particular, the AER has not discussed 'ranges' in relation to total expenditure forecasts in any of its distribution determinations, or commented that its substitute forecasts represent the 'top of the range'. The one exception is the AER's recent draft determination for Aurora Energy, which was issued after the AER's rule change proposal.[41]

Rather, the AER has restricted its discussion of substitute forecasts in its determinations to a single value for total expenditure (and for each component making up that total), and has noted only that it is satisfied that its substituted total value reasonably reflects the expenditure criteria. Moreover, in the limited instances where the AER has discussed ranges for individual expenditure categories (rather than for total expenditure) in its distribution determinations, it has been explicit about adopting the mid-point of the potential range or forecasts, rather than the upper bound.[42]

In our opinion the AER's interpretation of the scope of its ability to substitute expenditure forecasts under Chapter 6 and the restrictions (if any) implied by clause 6.12.3(f) is a matter that is yet to be formally tested and ultimately determined. The only explicit consideration of this clause to date by a review body is the decision by the Tribunal in EnergyAustralia [2009].[43] In this context the Tribunal found that 6.12.3(f) did not restrict the AER to adopting the same methodology as the DNSP in forming a substitute expenditure forecast. However that case did not explicitly consider whether 6.12.3(f) restricts the AER's ability to make a substitute expenditure forecast in other material ways. We note that the interpretation of clause 6.12.3(f) is not a matter that is explicitly addressed by either of the two legal opinions submitted by the AER in support of its rule change proposal.[44]

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41 The AER also refers to its substitute capex forecast being the 'minimum adjustment necessary [..] to meet the National Electricity Rules (NER) criteria' in its November 2011 Draft Decision under Chapter 6A for Powerlink. We discuss the Aurora and Powerlink Draft Decisions further in section 4.2.

42 This point is discussed further in section 4.2.3.

43 EnergyAustralia [2009] ACompT 8.

44 The AER has submitted advice from Stephen Lloyd SC and the Australian Government Solicitor.

3.4. Incentives against systemic upward bias

We highlighted in section 2.1 that the AER's overarching contention in relation to the current Rules (both Chapter 6A and Chapter 6) is that they have led to systemically inflated expenditure forecasts being included in the AER's regulatory determinations.

We assess the AER's contention in detail in section 4.2. However, before doing so, it is useful to summarise the history of how the perceived risk of regulatory determinations reflecting inflated expenditure forecasts was addressed by the AEMC at the time of the development of the Chapter 6A Rules. This summary highlights that the potential for systemically inflated forecasts is one which was recognised at the time at which the Rules were developed, and has been the subject of long-standing and informed debate. It also highlights that the AEMC deliberately included elements within the Chapter 6A framework which were intended to address the potential for upward bias.

The AER makes reference in its rule change proposal to the Expert Panel having 'foreshadowed' the issue of systemically inflated forecasts under the 'reasonably reflects' test.[45] The AER also comments that:[46]

> the framework proposed by the AEMC lacked balance and increased the potential for regulatory gaming. However it is not clear that the analysis undertaken at the time accorded sufficient weight to the likely impact on consumers.

The AER does not acknowledge that in developing the Chapter 6A Rules, the AEMC explicitly considered the issue of systemic upward bias, and the appropriate balance between the interests of TNSPs and network users and between the risks and costs of market and regulatory failure.[47] The AEMC's Draft Determination on Chapter 6A was issued after the Expert Panel's Report, and directly discussed the concern raised by the Expert Panel:[48]

> Turning to the Expert Panel's concern about incentives for strategic behaviour, such incentives are a reality in a regulatory process the purpose of which is to determine the future revenue and prices of regulated businesses and thus their future profitability and shareholder value. In this situation, regulated businesses will have an incentive to 'talk up' the forecasts of expenditure required to provide the service under any decision criterion.
>
> However, the Commission considers that the decision making process and criteria specified in the Proposed Rule and maintained in the Draft Rule for assessing expenditure forecasts provide the regulator with sufficient powers and safeguards to be able to achieve regulatory outcomes that are not overly distorted by strategic behaviour on the part of TNSPs.

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45 AER (2011), *op cit*, page 27.

46 AER (2011), *op cit*, page 28.

47 AEMC Final Determination (Nov 2006), page 52.

48 AEMC Draft Rule Determination (July 2006), page 52.

In particular the AEMC highlighted the role under the Rules of the AER's ability to substitute its own expenditure forecast, if it considers that the TNSP's proposal is excessive, as acting to restrain the potential for upward bias:[49]

> The Commission also considers that the decision making process to be followed by the AER in assessing the expenditure forecasts is more likely to provide an incentive to submit well documented and supported expenditure forecasts rather than to submit forecasts that are grossly exaggerated. That is, TNSPs are likely to see the benefits of seeking AER acceptance of well supported forecasts of expenditure as outweighing those resulting from ambit claim forecasts with the associated risk of the AER rejecting excessive and poorly supported expenditure forecasts and replacing them with its own forecast.

The AEMC concluded that:[50]

> The Commission has not been persuaded therefore that the reasonable estimate decision criterion and process provided for in the Proposed Rule provides stronger incentives and opportunities for regulatory gaming than would be the case under alternative decision criteria. The approach has therefore been maintained in the Draft Rule.

The AEMC again revisited the question of potential upward bias in its final determination on Chapter 6A. In addition to the Expert Panel's concerns, the AEMC also considered an opinion prepared by the Australian Government Solicitor (AGS) for the Department of Industry Tourism and Resources, which expressed the view that:[51]

> [..] the use of the 'reasonable estimate' test, uncertainty in forecasting, the existing case law in GasNet and Telstra and the role of the pricing principles in resolving conflict, will result in the AER being required to accept a range of forecasts higher than those it would determine as the most appropriate or best estimate.

The AEMC again noted that the ability for the AER to substitute a less favourable value would act as an incentive on TNSPs to avoid submitting ambit claims:[52]

> The decision-making process set out in the Revenue Rule will also reduce the incentive for TNSPs to submit forecasts which represent ambit claims. Such exaggerated forecasts would be likely to fail to satisfy the decision criteria to be applied by the AER and therefore to run the risk of being rejected and replaced by the AER with a less favourable forecast.

The importance of the incentive provided by the AER's ability to substitute a less favourable expenditure forecast if the TNSP was found to be outside of the reasonable range was also

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49 *ibid*.

50 AEMC Draft Rule Determination (July 2006), page 53.

51 Australian Government Solicitor, Advice provided to T. Motherwell, Department of Industry Tourism and Resources, 10 October 2006, p.19.

52 AEMC Final Rule Determination (Nov 2006), page 53.

highlighted in an opinion by Stephen Gageler SC (provided to the Electricity Transmission Network Owners Forum (ETNOF)[53]), cited by the AEMC in its final determination:[54]

> We agree with the observation in paragraph [42] of the AGS advice that the likelihood is that "there will be a number of total forecasts that are "reasonably open" to a TNSP in the sense that each can be described as a "reasonable estimate". If any of them is proffered by the TNSP, it would have to be accepted by the AER. That is the logical corollary of the fact that there can be no uniquely correct or preferable or appropriate forecast and of the fact that it is for the AER in the first instance not to determine a forecast for itself but to determine whether the forecast proffered by the TNSP is the product of sound judgement.
>
> We do not see it as an invitation to exploitation. A TNSP which sought deliberately to adopt a forecast at the upper end of what it considered the AER might be prepared to accept as a "reasonable estimate" would be in breach of its obligation under cl 6A.6.6(a) or cl 6A.6.7(a) to include in a Revenue Proposal a forecast of expenditure which the TNSP genuinely considers to be reasonably required. The TNSP would also run the significant risk of overreaching and of thereby allowing the AER to make and substitute its own estimate.

In addition, the advice from the AGS itself confirmed that the AER's discretion to substitute a reasonable estimate would be 'broad', and that this acts as an incentive on the service provider:[55]

> If the service provider's estimate was properly rejected by the AER, the discretion for the AER to substitute a reasonable estimate would be broad.[56]
>
> [..] the regulator's decision to impose its own estimate only needs to be what it considers 'reasonable' [..]The Full Federal Court even noted that 'once the threshold of non-approval is properly crossed, the ACCC is at large in the content of its own Access Arrangement albeit it must be within the framework provided by the Code [..] This position can be seen as part of the incentive for a service provider in a propose-respond framework.

The AEMC's conclusion in its Final Determination on Chapter 6A was:[57]

> Equally the Commission does not intend that the Rules contemplate such a range of permissible outcomes that there is a risk of inherent bias toward higher amounts.[58]

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53 Now Grid Australia.

54 Legal Advice provided to ETNOF by Stephen Gageler SC, 25 October 2006, paragraph 16. Cited by the AEMC in its Final Rule Determination (Nov 2006), page 46.

55 *Ibid* para 59.

56 Australian Government Solicitor, Advice provided to T. Motherwell, Department of Industry Tourism and Resources, 10 October 2006, A.5.

57 AEMC Final Rule Determination (Nov 2006), page 53.

58 AEMC Final Rule Determination (Nov 2006), page 52.

> While informed opinions may differ on what are efficient costs, costs of a prudent operator or realistic expectations of forecast demand and input costs in the circumstances facing the regulated entity, those matters can be tested readily by reference to objective evidence drawn from history, the performance and experience of comparable businesses and the assessments of electricity industry experts.

In summary, it is clear from the AEMC's documentation of its Chapter 6A determination that it was aware of the issue of a potential upward bias in relation to expenditure forecasts and that it saw the AER's ability to substitute its own forecast of expenditure which was less favourable to the TNSP as a key element of the framework in providing an incentive against the submission by TNSPs of inflated expenditure forecasts.

4. Assessment of the Problems Identified by the AER

This section presents our assessment of each of the AER's contentions in relation to the operation of the current Rules in relation to expenditure forecasts.

The AER's contentions with the operation of the current Rules in relation to expenditure forecasts were discussed in section 2 and can be summarised as follows:

1. The current 'reasonably reflects' test places an evidentiary burden on the AER and has lead to systemically inflated expenditure forecasts being included in regulatory determinations, for both TNSPs and DNSPs; and
2. The AER faces additional restrictions under Chapter 6, which mean it is locked into forming any substitute proposal on the same line-by-line basis adopted by DNSPs, with the consequences that:

    i. The AER is restricted in practice from conducting top-down benchmarking;

    ii. The AER is restricted in practice from assessing the overall 'deliverability' of the proposed expenditure;

    iii. There will inevitably be a proportion of costs which escape regulatory scrutiny; and

    iv. Only assessing proposed expenditure through a bottom-up approach is inconsistent with the current incentive framework.

The AER has not distinguished between operating and capital expenditure in highlighting these concerns, with the apparent implication that the concerns apply to both.

4.1. Evidence-based assessment

The AER contends that '[t]he experience from the last five years has exemplified the restrictions on the AER's regulatory discretion and in turn suggests that concerns about inflated forecasts are well founded.'[59]

We have undertaken a systematic assessment of all of the four electricity transmission decisions[60] and twelve distribution determinations[61] which have been completed by the AER under the current Chapter 6A and Chapter 6 Rules, respectively. In each case we have examined the AER's decision in relation to both operating and capital expenditure forecasts. The aim of our assessment has been to identify whether the AER's practical implementation of the Rules over the last five years indicates that the AER has been inappropriately constrained in the manner it has submitted. We have also reviewed the AER's two recent

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59 AER, Executive Briefing, Energy Network Regulation Reform, page 2.

60 We have excluded the AER's 2007 determination for Powerlink since it was not conducted under Chapter 6A of the Rules.

61 The AER's 2009 determination for the NSW DNSPs and ActewAGL was made under the Transitional Provisions for New South Wales and the Australian Capital Territory. However the Transitional Provisions reflected the same provisions in relation to the assessment and substitution of expenditure forecasts as the current Chapter 6 Rules.

draft decisions (for Powerlink and Aurora Energy), which were issued subsequent to the AER lodging its rule change proposal.

Our review of the AER's determinations has been supplemented by a review of decisions made by the Australian Competition Tribunal ('Tribunal'), where these have directly concerned issues relating to the assessment of expenditure forecasts.

Appendices B and C presents the detailed findings from our review of the AER's determinations. The remainder of this section summarises the key conclusions we have been able to draw from our review in relation to each of the deficiencies with the current Rules highlighted by the AER.

4.2. Risk of systematically inflated forecasts

The AER's overarching concern with the current Rules (both Chapter 6A and Chapter 6) is that it has in practice delivered inflated forecasts of capital and operating expenditure that have been reflected in regulatory determinations,[62] and that these in turn have contributed to the price rises which have been faced by consumers.[63] Although at some points in its rule change proposal the AER refers to the 'risk' of inflated forecasts, the AER is clear that it considers that this risk has eventuated in practice.[64]

The AER contends that one reason for this systemic upward bias is that the current Rules require the AER to accept an NSP's proposal if it 'reasonably reflects' the expenditure criteria, and preclude it from substituting a different, lower forecast, which would also meet the expenditure criteria and reflect the revenue and pricing principles in the NEL.[65] The AER also contends that the evidentiary burden it faces under the current 'reasonably reflects' is a further factor leading to the systemic upward inflation of expenditure forecasts.[66]

4.2.1. The AER has rejected NSP's total expenditure forecasts in all determinations

Our review of the AER's determinations shows that <u>in every determination</u> under both Chapter 6A (for TNSPs) and Chapter 6 (for DNSPs):

- the AER has rejected both the total capital expenditure forecast and the total operating expenditure forecast put forward by the NSP; and
- the AER has substituted its own forecast of the total capital expenditure and total operating expenditure it considers reasonably reflects the capital (operating) expenditure criteria, having regard to the capital (operating) expenditure factors.

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62 AER (2011), *op cit*, page 12.

63 AER, Executive Briefing page 2 and AER (2011), *op cit*, page 14.

64 See for example, AER (2011), page 12 and page 14.

65 AER (2011), *op cit*, page 25.

66 AER (2011), *op cit*, page 27.

Table 4.1 summarises the difference between the total capital and total operating expenditure forecasts put forward by the NSP and the total capital and total operating expenditure forecasts substituted by the AER in its final determination.

Table 4.1
Difference Between NSPs' Revised Total Expenditure Forecast and the AER's Final Substituted Total Expenditure Forecast (%)

	Capex	Opex
	AER Final Decision	**AER Final Decision**
TNSP Determinations under Chapter 6A		
Transend	-15%	-10%
TransGrid	-4%	-6% (-5%*)
ElectraNet	-10%	-1%
SP AusNet	-10%	-10%
DNSP Determinations under Chapter 6		
CitiPower	-19%	-14%
Powercor	-18%	-14%
Jemena	-25%	-17%
SP AusNet	-8%	-11%
United Energy	-8%	-14%
ETSA Utilities	-11%	-5% (-4%*)
Ergon Energy	-20% (-19%*)	-6% (-5%*)
Energex	-8%	-1%
Country Energy	-4%	-7%
EnergyAustralia	-6%	-12% (-12%*)
Integral Energy	-0.5%	-0.3%
ActewAGL	-8%	-5%

Source: NERA analysis of AER Final Determinations and AER Statement on Updates for Final Decision – Australian Competition Tribunal Orders

* Figure in brackets represents the difference between the NSP's revised proposal and the final expenditure forecast following appeal of the AER's determination to the Australian Competition Tribunal.

In its recent Draft Decisions for Powerlink and Aurora Energy, the AER has also rejected the NSP's proposed expenditure forecasts and substituted its own forecasts, for both capex and opex.

4.2.1.1. The AER has not been required to accept inflated forecasts

Actual experience from the AER's determinations does not support the view that the AER has been constrained under the Rules to accept NSP's proposed total forecast amounts in circumstances in which the AER considers that the forecasts are inflated. This must follow from the fact that under the Rules the AER has not accepted any of the NSPs' proposed total forecast operating or capital expenditure amounts. That is, the theoretical situation depicted in Figure 3.1 where the AER is required to accept an NSP's total expenditure forecast as reasonably reflecting the expenditure criteria, even though the AER may prefer a lower forecast which also reasonably reflects the expenditure criteria and meets the revenue and pricing principles in the NEL, has not occurred in practice.

In all of its determinations the AER has *rejected* the total expenditure forecasts put forward by the NSP, as being above the total expenditure that reasonably reflects the expenditure criteria. As a result, the theoretical potential for an upward bias in expenditure forecasts noted by the Expert Panel, the AGS and Stephen Gageler SC (as discussed in section 3.4) has not been demonstrated by actual determination outcomes over the last five years. Rather, the AER has determined in all cases that it is not satisfied that the NSPs' forecast reasonably reflects the expenditure criteria and has substituted its own forecast of total expenditure in its determination.

4.2.1.2. The AER has rejected and substituted total expenditure

In assessing the expenditure forecasts put forward by the NSPs, and in substituting its own value for forecast expenditure, the AER has taken a 'line-by-line' approach for DNSPs and also for TNSPs. The AER's approach (and its contention that it is 'locked-in' to this approach for DNSPs under Chapter 6) is discussed in more detail in section 4.3.1.3. However we note here that although the AER has undertaken a line-by-line approach to assessment and substitution, it has also been clear in its determinations that its substitute value reflects the *total* expenditure forecast which it is satisfied reasonably reflects the expenditure criteria.

For example, in its determination for TransGrid the AER stated that:[67]

> Although the AER is requiring a number of adjustments based on a specific project review, it is important to understand it is the total of the proposed forecast capex allowance which the AER must either accept or reject, on the basis of the capex criteria having regard to the capex factors.

Similarly, in its most recent determination for the Victorian DNSPs the AER stated that:[68]

> The AER's decision requires it to be satisfied that the total of the forecast opex, not each individual program and project or element which constitutes that total forecast opex, reasonably reflects the operating expenditure criteria.

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[67] AER (2008), *TransGrid Transmission Determination 2009-10 to 2013-14*, Draft Decision, 31 October 2008, page 49.

[68] AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, page 312.

That the AER has used its assessment of individual expenditure categories to form a view in relation to total expenditure is evidenced by the following statement:[69]

> The AER has considered each of the Victorian DNSPs' revised forecast opex proposals in accordance with the opex factors in clause 6.5.6(e) of the NER. For the reasons discussed in this chapter, the AER is not satisfied that each component of operating expenditure associated with the Victorian DNSPs' revised forecasts opex proposals forms a total opex forecast the [sic] reasonably reflects the opex criteria.

In relation to capital expenditure forecasts, the AER again noted in its determination for the Victorian DNSPs that it was rejecting the DNSPs' *total* capex forecasts:[70]

> For the reasons discussed in this chapter, the AER is not satisfied that the total of each of the Victorian DNSP's proposed forecast capex reasonably reflects the capex criteria in accordance with clause 6.5.7(c) of the NER.

In substituting its own estimate of total opex and total capex the AER has similarly been explicit that it is satisfied that its substituted *total* value for expenditure reasonably reflects the expenditure criteria. For example, in its determination for Country Energy the AER stated that:[71]

> The AER's estimate of the total capex required by Country Energy in the next regulatory control period, that reflects the capex criteria taking into account the capex factors, is set out in table 7.16 of this final decision.

In its determination for TransGrid the AER stated that:[72]

> Based on its own analysis and the advice of PB, the AER has reduced TransGrid's revised capex proposal by $110 million… This amended allowance represents the AER's estimate of the total capex that a prudent operator in the circumstances of TransGrid would require to achieve the capex objectives.

4.2.2. TNSP determinations

The AER has made a decision to reject and substitute total opex and capex forecasts in each of the four transmission determinations it has made under the current Chapter 6A Rules.

As discussed in section 3.2, where the AER determines that a TNSP's total expenditure proposal (either capex or opex) does not reasonably reflect the expenditure criteria, the AER must reject the TNSP's forecast, and substitute its own forecast, which it is satisfied

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69 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, page 372.

70 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, page 400.

71 AER (2009), *New South Wales distribution determination 2009–10 to 2013–14*, Final Decision, 28 April 2009, pages 142 - 145.

72 AER (2009), *TransGrid Transmission Determination 2009-10 to 2013-14*, Final Decision, 28 April 2009, page 44.

reasonably reflects the expenditure criteria. This is reflected in the drafting of Chapter 6A, and in particular 6A.13.2(b).

In its recent draft decision for Powerlink (released after the AER had lodged its rule change proposal), the AER has explicitly commented that:[73]

> The substitute forecast is the minimum adjustment necessary for Powerlink to meet the National Electricity Rules (NER) criteria… The minimum adjustment to Powerlink's proposed forecast capex required to meet the capex objectives is $1128 million ($2011-12) ...

However, there is no restriction in Chapter 6A which requires the AER in substituting its own forecast of expenditure to only amend the TNSP's proposal to the extent necessary to enable it to be approved in accordance with the Rules. This is clear from the explicit exclusion in clause 6A.13.1(a). The AER itself notes in its rule change proposal that its perceived limit on the regulator amending a proposed forecast relates only to chapter 6.[74]

Given that the AER has in practice rejected the TNSP's total expenditure forecasts in each of the four transmission decisions it has made under chapter 6A, this means that the AER would have been able to substitute its own view of the expenditure which it is satisfied reasonably reflects the expenditure criteria. For these four determinations, the relevant restriction on the AER was only that the substitute forecast it determined is one that it was reasonably satisfied reflects the operating or capital expenditure criteria, as relevant. The AER should have also been guided by the national electricity objective in determining any substitute amounts as well as taking into account the revenue and pricing principles in the NEL when exercising any discretion in determining the substitute amounts.

It therefore follows either that:

1. The values for total expenditure substituted by the AER do reflect its view of the required expenditure for those TNSPs - and therefore that in practice there has been no systemic inflation in the AER's determination of expenditure forecasts for the TNSPs; or
2. The AER has to date chosen not to exercise the full extent of its discretion under Chapter 6A in making its substitute expenditure forecast decision - any upward bias in the expenditure forecasts reflected in the AER's decisions has therefore been a consequence of the AER's own approach, rather than the framework in the Rules.

In neither of the above cases does the actual experience to date indicate that there is any deficiency in the current Rules in the manner in which the AER contends there is. There is therefore nothing in the experience to date which would support an argument for granting the AER a greater degree of discretion in relation to substituting a TNSP's expenditure forecast.

As noted above, our review of the AER's determinations highlights that in practice the AER has chosen to adopt a bottom-up, line-by-line approach in assessing TNSPs' expenditure forecasts, and has also made substitutions of expenditure values on a line-by-line basis. This

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[73] AER (2011), Powerlink Transmission Determination 2012-13 to 2016-17, Draft Decision, November 2011, page 97.

AER (2011), *op cit*, page 27.

is despite the fact that the AER is clearly not restricted in adopting the same methodology as the TNSPs in assessing and substituting expenditure under Chapter 6A.[75] It would be open to the AER, once it has decided it is not satisfied with a TNSP's forecast, to substitute a value for total expenditure based on an approach other than a line-by-line substitution of the TNSP's own expenditure forecast (assuming that the AER could justify an alternative approach).

4.2.3. DNSP determinations

The AER states in its rule change proposal that the problem of systemically inflated expenditure forecasts is exacerbated for DNSPs by the restriction in Chapter 6 that the AER must only substitute an amount or value to the extent necessary to enable it to be approved in accordance with the Rules.[76] The AER states that this restriction means that it has found it necessary:[77]

> to conduct a line by line assessment in order to bring it back into the very top of the range. This means that there is no other possible result than an estimate that is at the top of the range.

Table 4.1 shows that the AER has rejected the DNSP's total expenditure forecasts (for both opex and capex) in all of its determinations under Chapter 6 to date, and has substituted its own value for total expenditure. This substitution has been undertaken on a line-by-line basis in relation to expenditure categories (rather than as a top-down adjustment to total expenditure).

In making adjustments to particular expenditure categories, in the majority of cases the AER has not included any discussion of the potential 'range' of expenditure forecasts or made any comment which imply that it has only adjusted the DNSP's expenditure forecast to bring the forecast back to the top of the range of values which it is satisfied reasonably reflect the expenditure criteria.

The one exception to this is the AER's recent draft determination for Aurora Energy (issued after it lodged its rule change proposal), where the AER states that:[78, 79]

> … The AER has estimated a substitute total capex forecast for Aurora that the AER considers reasonably reflects the capex criteria, having regard to the capex factors. This estimate reduces Aurora's proposal of total forecast capex only to the extent necessary to comply with the NER.
>
> The AER has estimated a substitute total forecast opex for Aurora using a base year opex forecast that it considers reasonably reflects the opex criteria, taking

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75 This is explicit in 6A.13.2(b).

76 6.12.3(f)(2).

77 AER (2011), *op cit*, page 29.

78 AER, (2011), *Draft Distribution Determination Aurora Energy Pty Ltd 2012–13 to 2016–17*, Draft Decision, November 2011, page 118.

79 AER, (2011), *Draft Distribution Determination Aurora Energy Pty Ltd 2012–13 to 2016–17*, Draft Decision, November 2011, page 153.

> account of the opex factors. This estimate reduces Aurora's proposal of total forecast opex to the minimum extent necessary so that the AER may approve Aurora's total forecast opex in accordance with the NER.

However there is no further discussion in the draft determination as to why the AER considers that its substituted amounts are the 'minimum' adjustments necessary for the AER to be able to approve Aurora's forecasts.

For all of its earlier determinations, in the few cases where the AER has discussed ranges, it has been explicit about adopting the mid-point of the potential range of forecasts, rather than the upper bound. In its draft determination in relation to EnergyAustralia's capital expenditure forecasts, the AER noted that there is a degree of uncertainty regarding the efficient level of substation costs, and substituted a value midway between the DNSP's estimate and the AER consultant's forecast:[80]

> The AER recognised that there is a degree of uncertainty regarding the efficient level of substation costs and concluded that the efficient costs that a prudent operator in the circumstances of EnergyAustralia would require would be the value midway between EnergyAustralia's and SKM's estimates. Consequently, the non-civil substation capex estimate that the AER was satisfied reasonably reflected the efficient costs that a prudent operator, in the circumstances of EnergyAustralia, would require was 3 per cent (or $34 million, $2008–09) less than that proposed by EnergyAustralia.

Similarly, in its determination in relation to EnergyAustralia's operating expenditure forecast, the AER adopted an approach for the escalation of network maintenance costs which used the mid–point between EnergyAustralia's proposed growth rate and Wilson Cook's estimated growth rate. The AER stated that it:[81]

> considers that it is acceptable to use a mid–point between upper and lower estimates when there is reason to believe that a more reasonable value lies somewhere between these estimates.

Further, the AER's adoption of a mid-point in this case was upheld by the Tribunal, who commented that:[82]

> 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

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80 AER (2009), *New South Wales distribution determination 2009–10 to 2013–14*, Final Decision, 28 April 2009, page 138. We note that the AER revised its forecast of substation costs in its Final Decision to reflect the provision of more information by EnergyAustralia.

81 AER (2009), *New South Wales distribution determination 2009–10 to 2013–14*, Final Decision, 28 April 2009, page 172.

82 Australian Competition Tribunal, Application by Energy Australia and Others [2009] ACompT 8 (12 November 2009), para 252.

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

In its determination for Ergon Energy the AER also selected the mid-point (rather than a value representing the top of the reasonable range) in forming a decision on corporation initiated augmentation (CIA) capex:[83]

> The AER considers it is a conservative but reasonable approach, in the absence of more specific information, to take the midpoint of the possible range of values as an appropriate estimate of the percentage of CIA capex that is sensitive to the demand forecast.

It is therefore not clear from the evidence that the AER has in practice been restricted in substituting expenditure for the DNSPs to only bring the expenditure forecasts back to the 'top of the range', as it contends.

4.2.4. Evidentiary burden and limited ability to interrogate

The AER has also highlighted the 'evidentiary burden' it faces under the current 'reasonably reflects' test 'to first prove that the proposed expenditure is not efficient and not prudent.'[84] The AER contends that this is a further factor leading to the systemic upward inflation of expenditure forecasts. The AER also contends that the current degree of prescription in the Rules 'provides the regulator with limited ability to interrogate [..] forecasts proposed by NSPs'.[85]

4.2.4.1. No 'burden of proof' arises on the AER under the current Rules

Under the Rules the NSPs have an obligation to provide the AER with detailed expenditure forecasts, including in relation to the purposes for which the forecast expenditure is required and the assumptions and analysis on which the forecasts are based.[86] Both TNSPs and DNSPs are also required to include a certification by their directors of the reasonableness of the key assumptions.[87] The AEMC noted in its Draft Determination on the Chapter 6A Rules that:[88]

> [..] the AER's capacity to deal with exaggerated proposals will be strengthened by the requirement for the TNSPs to make a complete proposal (in conformity with AER guidelines) including information and evidence consistent with the assessment criteria in support of their expenditure forecasts.

The AEMC highlighted that the AER can reject poorly supported forecasts:[89]

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83 AER (2010), *Queensland distribution determination 2010–11 to 2014–15*, Final Decision, May 2010, page 110.

84 AER (2011), *op cit*, page 27.

85 AER (2011), *op cit*, page 13.

86 S6A.1.1 and S6A.1.2; S6.1.1 and S6.1.2.

87 S6A.1.1(5) and S6A.1.2(6), S6.1.1(5) and S6.1.2(6).

88 AEMC Draft Determination (July 2006), page 52.

89 AEMC Draft Rule Determination (July 2006), page 52.

> TNSPs are likely to see the benefits of seeking AER acceptance of *well supported* forecasts of expenditure as outweighing those resulting from ambit claim forecasts with the associated risk of the AER rejecting excessive and *poorly supported* expenditure forecasts and replacing them with its own forecast. (emphasis added)

The AEMC clearly noted in its Final Determination that no legal 'burden of proof' arises under the Rules.[90] Further, the AEMC noted that it did not adopt a decision rule which requires the AER to conclude that the TNSP's proposal was 'unreasonable' before it could reject it:[91]

> Rather the decision rule operates to require the AER to reject the TNSP's proposal if it is not satisfied that it meets the criteria specified.

The AER's contention that it is required 'to first prove that the proposed expenditure is not efficient and not prudent'[92] is simply incorrect.

The AEMC was clear that a decision rule which requires the AER to reject a proposal 'if it is not satisfied' has the consequence that:[93]

> the TNSP faces a practical hurdle that if it fails to provide sufficient information to enable the AER to be 'satisfied' as whether the proposal meets the decision rules its proposal will be rejected.

Advice provided to the AEMC by Neil Williams SC and Ruth Higgins at the time of the AEMC's final determination on Chapter 6A also refers to:[94]

> an initial evidential standard which must be met by a TNSP in submitting a proposal to the AER

And further:[95]

> Accordingly, it initially lies with a TNSP to put before the AER material which meets the requirements [..] and which is capable of supporting a determination [by the AER that it is a reasonable estimate].

Advice provided by Gilbert + Tobin to TransGrid and submitted to IPART also makes this point:[96]

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90 AEMC Draft Rule Determination (July 2006), page 52

91 AEMC Final Determination (Nov 2006), page 52.

92 AER (2011), *op cit*, page 27.

93 AEMC Final Determination (Nov 2006), page 52.

94 Neil Williams SC and Ruth Higgens, 24 October 2006, *Memorandum of Advice – In the Matter of In the Matter of the Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006*, para 2.4.

95 *Op cit*, para 2.1.

96 Letter from Phil Gall, TransGrid to Rod Sims, Chairman, IPART, Re: Regulated Retail Prices for Electricity 2011 (undated), advice included as attachment.

> In short, it is not useful to apply the concepts of burden of proof to administrative decision-making under the Rules. Rather, the relevant approach is to focus on the nature of the task to be undertaken by the service provider in putting forward its revenue or regulatory proposal, and that of the AER in assessing that proposal.
>
> An examination of the relevant Rules shows that it is for the relevant service provider to affirmatively demonstrate to the AER that the service provider's forecast of operating and capital expenditure amounts reasonably reflect the operating and capital expenditure objectives respectively. If the service provider is unable to do so, the AER could not then be satisfied that the forecast amounts reasonably reflect the relevant objectives, and the Rules then require the AER not to accept those forecast amounts.

Evidence from the AER's determinations (discussed further in section 4.2.4.3) further illustrates the ability the AER has had in practice not to accept NSP's forecasts where it considers that it has not been provided with sufficient evidence in support of those forecasts, and to elicit further information from NSPs.

4.2.4.2. Relevant Tribunal decisions

Tribunal decisions also support the position that the NSPs must provide sufficient information for the AER for it to be 'satisfied' that the expenditure forecasts reasonably reflect the expenditure criteria.

The Tribunal's decision in EnergyAustralia [2009] highlighted the onus on the NSP to provide evidence to the AER in support of its expenditure forecasts. The Tribunal concluded that the AER was justified in reducing to zero the value for items of expenditure where EnergyAustralia had not provided the quantification sought by the AER.[97] Specifically:[98]

> It is apparent from what the Tribunal has already said that the Tribunal is of the opinion that the AER did seek quantification from EA. EnergyAustralia had the opportunity to provide the quantification sought. [..] As submitted by EA, unlike other regulatory regimes, this regime gives considerable weight to the business experience, calculations and judgments of the regulated entity. EnergyAustralia is far better placed than the AER to undertake the exercise required to quantify the efficiency gains or to arrive at judgements 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.

In Ergon Energy Corporation Limited (Labour Cost Escalators) [2010], the Tribunal further concluded that the AER is able to consider how the expenditure forecasts are arrived at, in

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97 Australian Competition Tribunal, Application by Energy Australia and Others [2009] ACompT 8 (12 November 2009), para 203.

98 Australian Competition Tribunal, Application by Energy Australia and Others [2009] ACompT 8 (12 November 2009), para 201.

addition to the values themselves, in determining whether they 'reasonably reflect' the expenditure criteria:[99]

> 69 [..] Simply because there is a range of forecasts and a DNSP's forecast falls within the range does not mean it must be accepted when, as here, the AER has sound reason for rejecting the forecast.
>
> 70 First, cl 6.5.6(c) of the Rules does not require the AER to identify a range of forecasts and determine whether a DNSP's figure falls within that range. Nor is there anything in the legislation under consideration here that requires the AER to accept a figure advanced by a DNSP simply because it may be within a range of figures the DNSP may point to as reasonable. [..].
>
> 71. Secondly, what cl 6.5.6(c) requires is the AER to accept a forecast if it is satisfied that the forecast reasonably reflects the opex criteria. The AER pointed to cl 6.1.2(3) of Sch 6.1 to the Rules which requires a DNSP to explain the method by which its forecasts have been developed, as making good its claim that the requirement of cl 6.5.6(c) extends beyond mere examination of figures to an examination of how those figures are arrived at.

The AER in this case also expressed the view that it had the ability under the Rules to interrogate the methodological soundness of the way in which the NSP has developed its forecasts.[100]

> 48. Clause 6.5.6(c) requires the AER to consider whether a DNSP's forecast of its required opex .. reasonably reflects the operating expenditure criteria. .. that assessment involves a consideration of both the amount of the proposed opex and the methodological validity of the modelling or reasoning by which the estimate was derived. This interpretation of clause 6.5.6(c) is further supported by clause S6.1.2(3) of Schedule 6.1 to the NER: not only is a DNSP required to state in its building block proposal the forecasts of key variables relied on to derive its opex forecast; it is also expressly required to explain the **method** by which those forecasts have been developed. The obvious purpose of that requirement is to permit the AER to interrogate the methodological soundness of the cost escalators proposed by a DNSP.

4.2.4.3. Evidence from AER determinations

The AER contends that the current degree of prescription in the Rules 'provides the regulator with limited ability to interrogate [..] forecasts proposed by NSPs'.[101] This contention is not supported by a review of the AER's practice.

Our review of the AER's determinations made under the Rules highlights that it has been able to review the NSPs' forecasts directly, compare them with historic information, undertake its own analysis (including top-down assessments using benchmarking and its own

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[99] Australian Competition Tribunal, Application by Ergon Energy Corporation Limited (Labour Cost Escalators) (No 3) [2010] ACompT 11 (24 December 2010), paras 69 -71.

[100] AER, *The Australian Energy Regulator's Outline Of Submissions In Relation To Labour Cost Escalators*, 9 November 2010, para 48.

[101] AER (2011), *op cit*, page 13.

models (eg, the AER's repex model for estimating 'reliability and quality maintained' (RQM) capex) , employ experts to review and comment on the forecasts and to request further substantiating information from the NSPs.

In all of its determinations the AER has employed engineering consultants to review the expenditure forecasts put forward by the NSP. In all cases the AER's consultants have interrogated the NSP's forecasts and have proposed modifications, which have been reflected in the AER's own substituted forecasts of expenditure.

There are also multiple examples from its determinations of the AER's ability to effectively interrogate the NSP's forecasts and elicit further information from the NSPs. In many determinations the AER has concluded in its Draft Decision that it is not satisfied that particular aspects of the NSP's expenditure forecasts reasonably reflect the expenditure criteria. This has led the NSP to provide further evidence in response. In some cases, following further substantiation from the NSP, the AER has been satisfied with those elements of forecast expenditure.[102] In others the AER has continued not to be satisfied with the level of proposed expenditure. Examples of the AER's ability to effectively elicit further information include:

- As part of its determination for the Victorian DNSPs, the AER elicited further substantiating evidence from the DNSPs regarding their proposed non-network IT capex and, as a result, ultimately included this capex in its final decision:[103]

> In the draft decision, the AER's assessment was assisted by Nuttall Consulting. The AER was not satisfied that a number of the proposed non-network IT projects reasonably reflected the capex criteria. Where a DNSPs' proposed non-network IT capex did not reasonably reflect the capex criteria, the AER substituted its own forecasts… In support of their revised regulatory proposals, the Victorian DNSPs submitted additional information explaining and justifying the need for additional non-network IT capex. The AER considered the information provided and was informed by Nuttall Consulting's report to the AER… The AER has reviewed the revised regulatory proposals in a similar manner to the approach taken in the draft decision to arrive at its final decision. The AER's final decision accepted the revised capex forecasts of each Victorian DNSP, largely on the basis that the individual projects proposed by the Victorian DNSPs appeared to be prudent and efficient.

- As part of its determination for the Queensland DNSPs, the AER elicited further evidence from Ergon Energy regarding their proposed major property project capex and, as a result, included a portion of that capex as part of its final decision:[104]

> [In the draft decision] [t]he AER concluded that the prudence and efficiency of the major property project expenditures proposed by Ergon Energy had not been

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[102] However we note that in all of its Final Determinations the AER has not been satisfied that the overall total expenditure forecasts (for both opex and capex) reasonably reflects the expenditure criteria and so has rejected the total forecast and substituted its own.

[103] AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, page 436.

[104] AER (2010), *Queensland distribution determination 2010–11 to 2014–15*, Final Decision, May 2010, pages 126 - 131.

> adequately demonstrated. The AER noted Ergon Energy had been unable to provide business case documentation or other supporting documentation to justify the major property project expenditures proposed…
>
> PB reviewed Ergon Energy's revised regulatory proposal and supporting material provided in relation to the major property projects component of the non–system capex proposal…
>
> In summary, PB found that Ergon Energy's corporate property strategy was up to date, the project prioritisation was appropriate and the proposed program of works was deliverable. PB was satisfied that, with the exception of the Townsville and Rockhampton projects, Ergon Energy had demonstrated that all major property projects were prudent and efficient…
>
> The AER is therefore satisfied that, with the exception of the Townsville and Rockhampton projects, Ergon Energy has demonstrated that the revised capex proposal for major property projects is prudent and efficient.

Our conclusion from reviewing the AER's determinations made to date is that the ability of the AER to interrogate forecasts proposed by the NSPs does not appear limited under the current Rules.

4.2.4.4. Benefits of the AER's proposed Rule changes

The AER contends that its proposed Rule changes:

- would allow it to 'effectively scrutinise' the material provided by NSPs; [105]
- would mean that it is 'more able to properly scrutinise, assess and amend proposed forecasts of required expenditure';[106]
- 'gives the AER the ability to interrogate NSPs' revenue proposals [..]';[107]
- 'strengthens the AER's ability to interrogate NSPs' revenue proposals [..]'.[108]

The AER's proposed Rule changes in relation to expenditure were summarised in section 2.3 and predominantly relate to:

- changing the decision rule for expenditure forecasts to provide the AER with the discretion to determine the expenditure forecast which it considers would meet the efficient costs that a prudent NSP would require to achieve the expenditure objectives; and
- removing the provisions in Chapter 6 that the AER contends restricts its ability to form a substitute expenditure forecast in the case of DNSPs.

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[105] AER (2011), *op cit*, page 19.

[106] AER (2011), *op cit*, page 22.

[107] AER (2011), *op cit*, page 30.

[108] AER (2011), *op cit*, page 31.

The AER's proposed Rule changes would provide it with greater discretion to substitute its own forecast of expenditure for that proposed by the NSPs, where it considers that there is a preferable (presumably lower) forecast that also satisfies the criteria.

However it is not apparent how the AER's proposed changes would allow it to 'more [..] properly scrutinise' the material provided by NSPs, or strengthen its ability to interrogate NSPs' revenue proposals. Rather, the AER's proposed changes appear to have the effect of allowing greater scope for the AER to place less weight on the NSP's proposals, and thereby reduce the extent to which it scrutinises and interrogates those proposals.

4.3. Restrictions on AER's assessment under Chapter 6

Many of the AER's contentions in its rule change proposal relate to particular restrictions it perceives under Chapter 6 in relation to its assessment of expenditure forecasts for DNSPs. The AER has not distinguished between operating and capital expenditure in highlighting these restrictions, with the apparent implication that the restrictions apply to both.

4.3.1. AER locked into forming any substitute proposal using the same line-by-line approach as adopted by the DNSPs

The AER states in its rule change proposal that the restriction in clause 6.12.3(f)(1) (ie, that any substitute amount or value made by the AER must be determined on the same basis as the DNSP's regulatory proposal), locks the AER into forming a substitute in the same manner as determined by the DNSP in its proposal.[109] The AER further contends that since DNSPs routinely derive their forecasts on the basis of bottom-up estimates of expenditure, that the AER is in turn 'driven' to a line-by-line assessment of expenditure forecasts.

4.3.1.1. Relevant Tribunal decisions

Whether the AER is restricted under Chapter 6 to using the same methodology as the DNSP in forming any substitute expenditure forecast is an issue which has been explicitly considered by the Tribunal in EnergyAustralia [2009]. EnergyAustralia (now AusGrid) submitted that the AER was not permitted under Chapter 6 to reject its entire methodological approach and adopt some other approach. Rather, EnergyAustralia argued that the AER was only permitted to amend the methodology used by EnergyAustralia, not depart from it.[110]

In its submission to the Tribunal, the AER argued in support of an interpretation of Chapter 6 which did not restrict it to forming a substitute on the same basis as that adopted by the DNSP:[111]

> 55. A further criticism made by EnergyAustralia [..] is that the AER is not free to depart from EnergyAustralia's maintenance methodology and adopt some other approach. EnergyAustralia argues that the AER is only permitted by clause 6.12.3(f)(2) to amend EnergyAustralia's proposal to the extent necessary to

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[109] AER (2011), *op cit*, page 29.

[110] See EnergyAustralia [2009] A CompT 8, para 253.

[111] AER, Submission to Australian Competition Tribunal relating to EnergyAustralia [2009] A CompT 8.

> enable the proposal to be approved. In other words, the AER is only permitted to amend EnergyAustralia's *methodology*.
>
> 56. However, properly understood, clause 6.12.3(f)(2) does not support such a limited interpretation. Clause 6.12.3(f)(2) operates more flexibly.
>
> > 56.1 This is evident from the words used in clause 6.12.3(f)(2): the substitution is of an "amount or value", not "methodology" as submitted by EnergyAustralia. Clause 6.12.3(f)(2) does not prescribe *how* the substituted amount or value is to be calculated or derived.
> >
> > 56.2 That leaves it open to the regulator (and Tribunal on review) to make adjustments to the *total forecast opex* (clause 6.12.1) referred to in clause 6.12.3(f), by the method that the Tribunal considers reasonably reflects the operating expenditure criteria.

The AER's position in relation to the operation of clause 6.12.3(f)(2) as set out in the quote above is consistent with how the AER has practically applied the Rules in its distribution determinations to date. The AER's practical application of the Rules does not support the proposition that the AER has considered itself unreasonably constrained by the operation of clause 6.12.3(f)(2).

The Tribunal's decision upheld the AER's view that it was permitted under 6.12.3(f) to reject EnergyAustralia's entire methodological approach and adopt some other approach. In particular the Tribunal determined that:

> 255. The primary discretion given to the AER by cl. 6.12.3(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 6.12.1(4)(ii) to set an estimate of the total opex that the AER is satisfied reasonably reflects the opex criteria.
>
> 256. 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. [..]

In conclusion, the evidence shows that the AER has previously taken the view that it is not in fact restricted under 6.12.3(f) to adopting the same methodology as used by the DNSP in determining a substitute expenditure forecast. To the extent that this provision has also been subject to consideration by an external review body, that body has also concluded that clause 6.12.3(f) does not result in such a restriction.

4.3.1.2. AER has adopted different approaches to DNSPs in practice

Our review of the AER's actual practice in assessing and substituting DNSP's expenditure forecasts shows that in fact the AER has substituted values using its own analysis rather than being locked into the same approach as used by the DNSP.

For example, the AER has also adopted its own in-house 'repex' model to assess DNSPs' forecasts of RQM capex. The repex model was developed for the AER in 2009 by Nuttall Consulting and it forecasts replacement capex needs at an 'aggregate level' using age as a

proxy for the range of factors that drive individual asset replacements.[112] The AER used the repex model outputs in formulating the AER's alternative forecasts of RQM capex, in the case of the Victorian DNSPs:[113]

> .. the AER has reviewed the Victorian DNSPs proposed RQM forecasts and the information accompanying their regulatory proposals to determine if a higher volume had been justified. Where the AER was not satisfied the AER considered the recommendations of Nuttall Consulting and the repex model outputs in formulating the AER's alternative forecast.

The AER has also used its repex model in developing its substitute capex forecast in its draft determination for Aurora:[114]

> The AER has used the repex model in conjunction with other analysis to inform its decision on the minimum necessary adjustment to Aurora's total forecast capex proposal.

In addition, the AER has used benchmarking to assess aspects of a DNSP's expenditure forecasts. The use of benchmarking by the AER is discussed further in section 4.3.2.

4.3.1.3. AER 'driven' to a line-by-line assessment of expenditure forecasts

Notwithstanding the evidence above that in fact the AER is not restricted under Chapter 6 to adopting the same methodology as used by the DNSP, our review shows that in practice the AER has adopted a line-by-line assessment of different categories of expenditure in making its determinations for DNSPs in relation to both capex and opex forecasts.

Specifically, the AER's 'line-by-line' assessment of expenditure forecasts is based on consideration of a number of capex and opex 'categories'. The capex and opex categories reviewed by the AER for DNSPs have included:

- Capex: (i) new customer connections; (ii) reinforcement; (iii) reliability and quality maintained (RQM); (iv) environment, safety and legal; (v) SCADA and network control; and (vi) non-network IT and network other.[115]
- Opex: (i) controllable opex; (ii) self insurance; (iii) debt raising costs; and (iv) cost escalators.[116]

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112 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Draft Decision, June 2010, page 339.

113 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, page 426.

114 AER, (2011), *Draft Distribution Determination Aurora Energy Pty Ltd 2012–13 to 2016–17*, Draft Decision, November 2011, page 113.

115 These reflect the capex categories considered by the AER in: AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, pages 399 – 400.

116 These reflect the opex categories considered by the AER in AER (2010), *South Australia Final Distribution Determination 2010-11 to 2014-15*, Final Decision, May 2010, page 143.

In relation to each of these cost categories, the AER has typically assessed a number of different projects. However the 'line-by-line' assessment undertaken by the AER does not go down to the level of a project-by-project assessment for each expenditure category.[117]

In substituting its own value for DNSP's expenditure forecasts (both capex and opex), the AER has also adopted a line-by-line approach. That is, the AER has substituted its own forecast value for particular categories of expenditure, and has accepted the DNSP's forecasts for other categories, rather than making an overall substitution for total expenditure. However, as discussed in Section 4.2.1, the AER has clearly stated that its decision to reject a DNSP's expenditure forecast is a decision in relation to *total* forecast expenditure. Similarly, the AER has been clear that its substitute value is a value for *total* forecast expenditure.

Our review of the AER's determinations has shown that the AER has also adopted a line-by-line approach in assessing and substituting the expenditure forecasts submitted by the TNSPs, in each of the four transmission determinations it has made under the Chapter 6A Rules. [118] There is no contention made by AER that Chapter 6A restricts it to adopting the same methodology in substituting an expenditure forecast as that used by the TNSP. Indeed clause 6A.13.2(b) clearly excludes expenditure forecasts from the requirement under 6A.13.2(a)(1) for the AER to amend amounts on the basis of the TNSP's revenue proposal.

For TNSPs, the AER has therefore *chosen* to adopt the same line-by-line methodology for assessing and substituting forecasts, rather than having been 'driven' to do so. In its recent draft decision for Powerlink (issued after the AER had lodged the rule change proposal), the AER comments that:[119, 120]

> The AER must form a view on Powerlink's proposed forecast capex as a whole, not as individual projects or programs. However, because the total proposed forecast is separated into expenditure components, the AER assesses these components to make its decision on the total amount.
>
> To make this [draft operating expenditure] decision, the AER must form a view on Powerlink's proposed total forecast opex as a whole, not individual projects or programs. However, because the total forecast opex can be (and is by Powerlink) separated into expenditure components, the AER assesses these components to make its decision on the total amount.

In conclusion, the AER's contention that it is 'driven' to the use of a line-by-line assessment of expenditure forecasts for DNSPs as a consequence of the restrictions it faces under the Chapter 6 Rules does not match its actual practice. In particular the AER has chosen to adopt the same line-by-line assessment for TNSPs in each of its four transmission determinations,

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[117] See the discussion in section 4.3.4 in relation to the AER's use of sampling in making its expenditure determinations.

[118] For capex the AER's assessment focuses on specific projects, but these are also categorised (eg, in its determination for Transend the AER categorised capex as: development capex (augmentation; connection; land and easements), renewal capex (asset renewal; physical security/compliance; inventory/spares; and operational support systems) or non-network capex (IT, business support). In undertaking its opex assessment for TNSPs, the AER reviews opex categories, similar to its approach for DNSPs.

[119] AER (2011), Powerlink Transmission Determination 2012-13 to 2016-17, Draft Decision, November 2011, page 100.

[120] AER (2011), Powerlink Transmission Determination 2012-13 to 2016-17, Draft Decision, November 2011, page 38.

where there are clearly no restrictions in Chapter 6A equivalent to those highlighted by the AER in Chapter 6.

4.3.2. AER restricted from top-down benchmarking

The AER contends that the current Chapter 6 Rules have resulted in it being unable in practice to conduct top-down benchmarking approaches in assessing DNSP's forecast expenditure. The AER has not distinguished between opex and capex in highlighting this restriction. The use of benchmarking may in practice be relevant for both opex and capex.

Our review of the AER's distribution determinations has identified that in practice the AER has adopted benchmarking in many cases. For example:

- In the regulatory review for ETSA Utilities, PB Power was required by the AER to undertake a review of unit costs where necessary, as part of developing its view on the efficiency of capital investment decisions.[121]
- In the AER's decision for the Queensland DNSPs it noted that the high-level unit cost analysis conducted by PB Power had not identified any issues which it considered warranted further investigation:[122]

  > As described in PB's reports on the DNSPs' proposals, and in the draft decision, PB's high-level analysis did not identify any issues in relation to the Qld DNSPs' unit costs that it considered warranted further investigation. The AER therefore formed the view that PB was not required to assess unit costs in detail where this was not warranted by the high-level review. It is incorrect to say that PB was not required to assess unit costs in detail where this was considered necessary.

- In the AER's decision in relation to operating expenditure for EnergyAustralia, it had regard to benchmarking undertaken by Wilson Cook:[123]

  > Wilson Cook suggested that since its benchmarking analysis indicated that EnergyAustralia was operating at or slightly above the industry norm, the top down calculation confirms that the adjusted bottom up level of opex is not unreasonable…
  >
  > For clarity, the AER notes that it has based its forecast of controllable opex for EnergyAustralia on a bottom up assessment of EnergyAustralia's proposed opex. In doing so, the AER has had regard for the top down benchmarking analysis of EnergyAustralia's opex, as contemplated under clause 6.5.6(e)(4) of the transitional chapter 6 rules. Overall, the AER is satisfied that the adjustments made to EnergyAustralia's forecast opex based on a bottom up assessment are supported by the top down analysis.

- In the AER's draft determination for the NSW DNSPs, it benchmarked the IT expenditure proposed by Country Energy against that proposed by the other DNSPs:[124]

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121 AER (2009), *South Australia Draft Distribution Determination 2010-11 to 2014-15*, Draft Decision, 25 November 2009, page 119.

122 AER (2010), *Queensland distribution determination 2010–11 to 2014–15*, Final Decision, May 2010, page 73.

123 AER, (2009), *New South Wales distribution determination 2009–10 to 2013–14*, Final Decision, 28 April 2009, pages 174 - 176.

> The AER was not satisfied that this expenditure reflected the efficient costs that a prudent operator, in the circumstances of Country Energy, would require to satisfy the capex objectives. It considered that, when benchmarked in comparable terms against other DNSPs, Country Energy's proposed IT expenditure appeared inefficiently high, and had not been sufficiently justified in financial terms. The AER reduced Country Energy's non–system IT expenditure forecast by 25 per cent ($66 million) to bring it to a level comparable with other DNSPs.

- In its decision on operating expenditure for the Victorian DNSPs, the AER applied a 'benchmark efficiency adjustment' in the roll forward of actual 2009 operating costs for the expected costs in 2010 (with the exception of United Energy).[125]

- In its recent draft determination for Aurora Energy, the AER comments that it has benchmarked Aurora against itself and other DNSPs to assess whether Aurora's forecast capex is efficient:[126]

> The AER has undertaken this benchmarking analysis for total capex and specific components of capex as well as for unit costs.

Moreover, where the AER has commented in its determinations that it has *not* been able to utilise benchmarking, it has identified the lack of available data as the reason for this restriction, rather than provisions in the Rules. For example, in its decision for the Victorian DNSPs, the AER explicitly identified the lack of data as a factor which has prevented it from undertaking a comprehensive benchmarking exercise for capital expenditure:[127]

> In short, the AER does not presently have sufficient data of appropriate quality to comprehensively and conclusively benchmark the capex incurred against that which an efficient DNSP should incur in the circumstances. It is however addressing these issues for future reviews.

Similarly, in its decision for ETSA Utilities, the AER also highlighted deficiencies in the data set as the factor which had limited its use of benchmarking for opex, whilst also noting that it had had regard to the benchmark expenditure (opex and capex) that would be incurred by an efficient DNSP in coming to its conclusions on the forecast opex and capex allowances for ETSA Utilities:[128, 129]

> [T]he limitations of the benchmarking work, in terms of the size of the data set, discrepancies in opex definitions and differing regulatory arrangements for

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124 AER (2009), *New South Wales distribution determination 2009–10 to 2013–14*, Final Decision, 28 April 2009, page 131. In its Final Decision the AER accepted the further substation provided by Country Energy in relation to its IT costs.

125 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, page 337.

126 AER (2011), *Draft Distribution Determination Aurora Energy Pty Ltd 2012–13 to 2016–17*, Draft Decision, November 2011, page 117.

127 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, page 400.

128 AER (2009), *South Australia Draft Distribution Determination 2010-11 to 2014-15*, Draft Decision, 25 November 2009, page 200.

129 AER (2010), *South Australia Final Distribution Determination 2010-11 to 2014-15*, Final Decision, May 2010, page 123 – 124.

> comparable DNSPs limits the use of the benchmarking results as a tool for directly determining adjustments to opex forecasts… The AER therefore considers that, while benchmarking is a useful high-level analytical tool, it will currently limit its use to a top–down testing of more detailed bottom–up assessment, informed by due consideration of each of the factors specified in clause 6.5.6(e) of the NER.
>
> [In its draft decision] [t]he AER conducted a simple ratio analysis for a variety of opex ratios, which compared forecast allowances over the next regulatory control period with actual and forecast regulatory allowances from 2007–08... [and in the final decision] the AER considers it has had regard to benchmark expenditure (opex and capex) that would be incurred by an efficient DNSP over the regulatory control period in coming to its conclusions on the forecast opex and capex allowances of ETSA Utilities.

The AER has also explicitly considered benchmarking analysis in the majority of its transmission determinations (although we note that the AER has not claimed that it is restricted from considering benchmarking under Chapter 6A). The AER has also noted the limitations of benchmarking exercises in the case of specific TNSPs (notably Transend). Specifically:

- In its determination for Transend the AER included an appendix which incorporated a benchmarking analysis for both opex and capex. In doing so the AER noted the potential limitations of benchmarking in the specific case of Transend:[130]

  > It is important to note that the benchmarking included in this appendix is not intended to represent a comprehensive study but instead aims to provide a high-level 'sense check' on Transend's revenue proposal… The AER has undertaken a basic comparative analysis of the present (allowed) expenditure levels for both opex and capex… When combined with the benchmarking analysis conducted by WorleyParsons, Transend's expenditure levels are similar to other TNSPs, especially with regards to opex. In capex Transend's performance is lower than other TNSPs but it was noted that it would be difficult to assess Transend against other TNSPs due to the differing composition of its assets base relative to its peers.

  And further:[131]

  > In developing the draft decision the AER considered whether a high level benchmark exercise conducted on Transend's opex and capex would yield a benefit…However, it was noted that past and present AER Annual Regulatory Reports for TNSPs have benchmarked Transend against other TNSPs, but found that due to the differences in Transend's asset base these studies yielded little or no direct benefit. Nevertheless, the AER has, for the purpose of this final decision, included a benchmarking exercise to demonstrate why benchmarking is problematic in the case of Transend.

- The AER has also discussed the potential limitations of benchmarking in its recent draft decision for Powerlink: [132]

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[130] AER, (2009), Transend Transmission Determination 2009-10 to 2013-14, Final Decision, 28 April 2008, pages 192-200

[131] AER (2009), Transend Transmission Determination 2009-10 to 2013-14, Final Decision, 28 April 2008, page 93.

> The AER must have regard to the benchmark expenditure of an efficient TNSP when assessing proposed TNSP forecast opex against the opex criteria. The AER considers benchmarking provides an indication of the relative performance of TNSPs and can be used to form a view about the efficiency of Powerlink's historical costs. This view is shared by numerous stakeholders… The AER has undertaken benchmarking to inform its decision. Nevertheless, the AER notes the limitations of benchmarking. These include:
>
> – differences between purchase and leasing policies
>
> – variations in the network characteristics of TNSPs including the age, size and maturity of their networks and the markets they serve
>
> – different capitalisation, cost allocation and other accounting policies.

Examples of where the AER has actively used benchmarking for TNSPs include the following:

- In its determination for TransGrid, the AER engaged PB Power, who used benchmarking to assess TransGrid's business IT proposals:[133]

  > Business IT is the largest expenditure category within the total non-network capex. TransGrid proposed an allowance of $96 million over the next regulatory control period, which accounts for around 3.7 per cent of TransGrid's initial capex allowance. PB used benchmarking to assess if TransGrid's business IT proposals were in line with similar businesses and found:
  >
  > - the level of TransGrid's historical and proposed IT expenditure was equivalent to the IT expenditure being incurred/expected by other businesses
  > - while processes and procedures were not being prescriptively followed, this had no material impact on investment decisions
  > - the process for establishing the cost of IT projects was sound and the proposed expenditure is efficient.
  >
  > Consequently, PB did not recommend any adjustment to TransGrid's proposed IT expenditure…The AER is therefore satisfied that the expenditure on this program reasonably reflects the efficient costs that a prudent operator in the circumstances of TransGrid would require to achieve the capex objectives, consistent with the capex criteria. The AER, therefore, has not made any adjustments to TransGrid's proposed IT capex allowance as a result of this review.

- The AER also engaged PB Power as part of its determination for TransGrid, to examine the costs TransGrid used in its planning process for key capital expenditure items, and compare these with benchmark costs. PB Power considered specialist transmission project type costs within 20 per cent of its benchmark costs were reasonable. PB Power found that:[134]

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132 AER (2011), Powerlink Transmission Determination 2012-13 to 2016-17, Draft Decision, November 2011, pages 169-170.

133 AER (2008), *TransGrid Transmission Determination 2009-10 to 2013-14*, Draft Decision, 31 October 2008, page 59.

134 AER (2008), *TransGrid Transmission Determination 2009-10 to 2013-14*, Draft Decision, 31 October 2008, pages 64-65.

- for some items TransGrid's estimated costs were lower or about the same as its benchmarks;
- for some TransGrid's estimates were at the upper end of the range;
- and for control-room building costs, TransGrid's estimates were significantly higher than PB Power's benchmark (ie, more than 20 per cent higher). However, on detailed analysis of the scope of the work PB Power found this was reasonable relative to other TNSPs.

- As part of the AER's assessment of TransGrid's operating expenditure costs, it again engaged PB Power who considered TransGrid's estimates in the light of the ITOMS benchmarking results.[135]
- In the AER's determination for SP AusNet, PB Power undertook benchmarking analysis for 70 individual base unit costs used in deriving the capex forecast.[136]

> As part of its review PB developed unit cost benchmarks from a range of external and internal sources to compare against SP AusNet's proposed $2007-08 base unit costs (inclusive of escalations).
>
> PB concludes that all of SP AusNet's unit costs are within ± 20% of its benchmark costs, with one exception [control room costs]… The AER considers it important to benchmark SP AusNet's unit cost estimates against external independent data in order to inform an assessment on the overall efficiency of its forecast capex proposal. The AER accepts PB's benchmark costs as representing efficient and prudent costs against which to compare SP AusNet's proposed forecast capex, given the nature and number of the data sources used. It is also accepted that a range of ± 20% is reasonable for this type of benchmarking exercise, given that the benchmark transmission elements are unlikely to be a perfect proxy for SP AusNet's transmission equipment elements.

- Also its determination for SP AusNet, the AER used benchmark analysis to adjust the capital expenditure forecast:[137]

> In relation to SP AusNet's control room costs, the AER considers that PB has attempted to account for all reasonable and material variances (ie. cost and scope) in its analysis. On this basis the AER considers that SP AusNet's proposed cost of this item can not be said to reasonably reflect a prudent and efficient capex cost. Although the amount of the adjustment is unlikely to be materially significant in terms of the total project costs, the AER considers it appropriate to remove control room costs in excess of the PB benchmark from the forecast capex allowance for the Refurbishment of HWPS project, for the following reasons:

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135 AER (2008), *TransGrid Transmission Determination 2009-10 to 2013-14*, Draft Decision, 31 October 2008, page 111-112. The International Transmission Operations and Maintenance Study (ITOMS) benchmarks the maintenance and asset management activities of high-voltage transmission utilities (about 25 transmission organisations from Australia, New Zealand, USA, Europe, UK and Scandinavia). See TransGrid, (2008), *Revenue Proposal 1 July 2009 - 30 June 2014*, 31 May 2008, page 39.

136 AER (2007), *SP AusNet Transmission Determination 2008-09 to 2013-14*, Draft Decision, 31 August 2007, pages 85-86.

137 AER (2008), *SP AusNet Transmission Determination 2008-09 to 2013-14*, Final Decision, 31 January 2008, page 53.

- PB's benchmark costs of $300,000 for a similar scoped control room represent the costs of a prudent and efficient TNSP (cl. 6A.6.7(e)(4)).
- SP AusNet's proposed control room costs at HWPS140 of around $693,000 exceed the efficient benchmark costs by a material amount (around 53%).

On this basis, the AER has made an adjustment of $0.33m to SP AusNet's proposed control room costs at HWPS to remove costs in excess of the benchmark expenditure (>20% variance) that, on the basis of PB's advice, would be incurred by an efficient TNSP.

In conclusion, the evidence from the AER's determinations to date does not indicate that it has been restricted in practice in its use of benchmarking due to the current Chapter 6 Rules. Rather, the AER has actively had regard to benchmarking analysis. Where the AER has noted the limitations of benchmarking this has been due to the lack of relevant data and difficulties in making comparisons across businesses. The AER contends that its proposed change to the Rules will enable it to make greater use of benchmarking. However, the proposed changes will do nothing to address the issue of data availability or the comparability between NSPs, which are the factors which in practice have limited the AER's use of benchmarking to date.

Finally we note that the AER contends in its Rule proposal that its ability to adopt top-down benchmarking and consider matters such as the deliverability of the proposed expenditure in the case of DNSPs is hampered in practice 'since it must be able to justify each decision to deviate from the DNSP's proposal'.[138] We note that it is consistent with good regulatory practice that a regulator be able to justify its decisions.

4.3.3. AER restricted from considering deliverability of proposed expenditure

The AER contends that one of the restrictions it faces as a consequence of the Chapter 6 Rules is in considering matters such as the 'deliverability' of proposed expenditure.[139] The AER cites consideration of deliverability as a particular concern since 'a bottom-up approach tends to overstate required expenditure.'

The 'deliverability' of the expenditure forecast refers to the NSPs ability (both physical and financial) to actually undertake all of the projects implied by a given expenditure forecast. The AER in its rule change proposal has not distinguished between opex and capex in highlighting the restrictions it contends it faces under Chapter 6. However, questions of deliverability are more likely to arise in relation to capex rather than opex forecasts.

Our review of the AER's determinations shows that the AER has in practice considered the deliverability of total capital expenditure in all of its final distribution determinations.

Specifically:

- In its determination for ETSA Utilities, the AER engaged Energy and Management Services (EMS) to review the deliverability of ETSA's total capex program, in response

[138] AER (2011), *op cit*, page 26.

[139] AER (2011), *op cit*, page 26.

to concerns raised by the Energy Consumers Coalition of SA (ECCSA). The AER concluded that:[140]

> Having considered ECCSA's submission, ETSA Utilities' revised regulatory proposal and EMS' advice, the AER considers that ETSA Utilities' capex proposal will be deliverable. Further, the AER is satisfied that EMS has adequately addressed the concerns raised by ECCSA in relation to capex deliverability.

- In its determination for the Victorian DNSPs, the AER explicitly commented that:[141]

> Broadly, the assessment of the total forecast capex involved the examination of… the deliverability of the forecast capex.

- In its determination for Ergon Energy the AER explicitly commented on the delivery timetable for capital expenditure in relation to property capex:[142]

> The AER notes that Ergon Energy reviewed the prioritisation of projects after completing the project business cases and, as a result of this review adjusted the proposed timing of projects, including deferring the largest property capex project by two years. The AER considers that Ergon Energy has, therefore, demonstrated that the property program has been prioritised and is based on a delivery timetable that appears reasonable and prudent.

- In its determination for the NSW DNSPs, the AER explicitly sought assurance from the DNSPs that the instability in world financial markets would not affect the deliverability of their capex programs:[143]

> In the draft decision, the AER noted the instability in world financial markets. The AER also noted that should the credit crisis persist, the NSW DNSPs may experience financial resource constraints going forward.
>
> The EMRF, in its submission on the draft decision, noted the AER's concerns regarding deliverability and stated that, should a DNSP 'under run' its capex program due to deliverability concerns, consumers would pay for the capital not expended. It also stated it was incumbent on the AER to be assured that the capex requirements and the necessary roll over of current debt could be achieved.
>
> [..]
>
> On 27 January 2009, the AER sought clarification from the NSW DNSPs regarding any matters or circumstances that may affect their ability to obtain finance to deliver the capex programs they proposed for the next regulatory control period.
>
> The NSW DNSPs indicated they sought advice from the NSW Treasury Corporation on their ability to obtain finance and that, to date, access to finance

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140 AER (2010), *South Australia Final Distribution Determination 2010-11 to 2014-15*, Final Decision, May 2010, pages 104 - 105.

141 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, page 400.

142 AER (2010), *Queensland distribution determination 2010–11 to 2014–15*, Final Decision, May 2010, page 130.

143 AER (2009), *New South Wales distribution determination 2009–10 to 2013–14*, Final Decision, 28 April 2009, page 124.

> was not expected to constrain their ability to undertake capital works in the next regulatory control period.

- In its determination for ActewAGL, the AER stated that it considered that ActewAGL will be able to finance and deliver its proposed capex program: [144]

> Based on the information available, including the advice from ActewAGL, the AER considers that ActewAGL will be able to finance and deliver its proposed capex program in the next regulatory control period

The one determination to date in which the AER has not explicitly discussed the deliverability of expenditure is in its draft determination for Aurora Energy, issued after the AER lodged its rule change proposal.

The evidence from the AER's determinations therefore does not support its contention that the current Chapter 6 Rules restrict its ability to consider the deliverability of expenditure for DNSPs.

Moreover, as discussed in section 4.3.1.3, the AER has explicitly noted in its determinations that it is required to make a decision on the reasonableness of *total* expenditure, and not the individual projects comprising that total. An assessment of deliverability would appear to us to be a relevant consideration in relation to determining the reasonableness of total expenditure.

The AER has also explicitly considered the deliverability of expenditure in almost all of its transmission determinations (although we note that the AER has not claimed that it is restricted from doing so under Chapter 6A). Specifically:

- In the AER's draft determination for ElectraNet (in a section entitled 'Deliverability of the capex program'), it proposed an amendment to the forecast capex program to reflect deferral of three capex projects to enhance the deliverability of the capex program.[145]

> While the AER is satisfied that ElectraNet has the potential to deliver the amended forecast capex program during the next regulatory period, it considers that there is merit in deferring the three proposed ETC driven projects towards the end of the next regulatory control period. If the ESCOSA agrees to the deferral of these projects, it will assist in smoothing the overall capex profile and enhance the deliverability of the capex program.

  The AER's final determination for ElectraNet amended the forecast capex program to reflect deferral of two of these capex projects, in order to enhance deliverability of the capex program.[146]

- In its determination for Transend, the AER explicitly stated that it was satisfied that Transend is well positioned to physically deliver the forecast capex program (as adjusted by the AER):[147]

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144 AER (2009), *Australian Capital Territory distribution determination 2009–10 to 2013–14*, Final Decision, 28 April 2009, page 35.

145 AER (2007), *ElectraNet Transmission Determination 2008-09 to 2012-13*, Draft Decision, 9 November 2007, page 121.

146 AER (2008), *ElectraNet Transmission Determination 2008-09 to 2012-13*, Final Decision, 11 April 2008, pages 54-55.

> At the predetermination conference held in Hobart on 10 December 2008, a number of stakeholders raised the current economic circumstances and questioned the impact of the changes in economic conditions on Transend's capital expenditure proposal.
>
> As set out in the AER's draft decision, the AER is satisfied that Transend is well positioned to physically deliver the forecast capex program (as adjusted by the AER) during the next regulatory control period… In its response to the AER dated 17 February 2009, Transend's Board confirmed that neither it nor TASCORP, through which Transend raises all its debt, were aware of any circumstances that would affect Transend's ability to access funds during the next regulatory control period. The AER accepts the advice of Transend's Board on this matter.

- The AER's decision for TransGrid included a specific section entitled 'Deliverability of the capex program', where the AER concluded that TransGrid remains in a good position to obtain the necessary finance to deliver the capex it has proposed for the next regulatory control period.[148]

> In the draft decision, the AER noted the instability in world financial markets and that TransGrid was likely to be well positioned to deliver its capex program, even if the global financial crisis continued. The EUAA noted, however, that there was considerable risk to the delivery of any large capex program, due to current economic uncertainty. To address concerns about TransGrid's capacity to deliver its capex program, the AER sought clarification from TransGrid regarding any matters and circumstances that may affect its ability to obtain finance to deliver the capex programs it proposed for the next regulatory control period… Based on the information detailed above, the AER considers that TransGrid remains in a good position to obtain the necessary finance to deliver the capex it has proposed for the next regulatory control period.

In conclusion, the evidence from the AER's distribution determinations does not support its contention that has in practice been constrained in its ability to consider the deliverability of forecast expenditure for DNSPs under the current Chapter 6 Rules.

4.3.4. A proportion of costs escape regulatory scrutiny

The AER states in its rule change proposal that the resource-intensive nature of bottom-up assessments means that it is not realistic for it to examine each individual cost incurred by an NSP over a five year period and so 'it is inevitable that a proportion of costs escape regulatory scrutiny'.[149]

From our detailed review of the AER's distribution determinations, it is evident that the AER has in practice adopted both a detailed review of a sample of individual projects (typically undertaken by engineering consultants) and a broader review of the DNSPs' processes underlying its expenditure forecasts.

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147 AER (2009), Transend Transmission Determination 2009-10 to 2013-14, Final Decision, 28 April 2008, page 58.

148 AER (2009), *TransGrid Transmission Determination 2009-10 to 2013-14*, Final Decision, 28 April 2009, page 14.

149 AER (2011), *op cit*, page 30.

In addition, the AER has applied adjustments to expenditure for projects which have not been explicitly reviewed, on the basis of the findings for the sample of projects which have been reviewed in detail. Specifically in its distribution determination for ETSA Utilities, the AER made a proportionate adjustment to the 48 per cent of replacement capex that was not subject to detailed review:[150]

> The AER notes that PB's detailed review encapsulated 52 per cent of ETSA Utilities $467 million capex program and … [t]he AER is concerned that while PB has been able to identify these issues and recommend adjustments to 52 per cent of forecast replacement capex, 48 per cent of replacement capex remains as forecast by ETSA Utilities. The AER considers that given the level of adjustment required to the categories subject to the detailed review, a general adjustment to the remaining replacement capex is, under the circumstances, justified. Considering the level of adjustment necessary to the 52 per cent of replacement capex reviewed by PB, the AER considers a proportionate adjustment based on the total adjustment derived from the detailed review is prudent.

We note that the AER's approach was accepted by ETSA Utilities in its Revised Proposal and reflected in the AER's Final Decision (which was not subject to appeal on this point).

The AER has adopted a similar approach in its recent draft determination for Aurora Energy, and has used the results of sampling to adjust capex forecasts for projects which have not been explicitly reviewed:[151]

> [T]the AER conducted a targeted review of a sample of projects and programs that Aurora considers underpins its forecast. ..The AER considers these areas contain a large level of planned augmentations, and include a range of large and small projects, as well as a range of load growths.
>
> The AER has grouped projects (both those within the sample and those outside the sample) based on the issues uncovered from detailed review and the likely prevalence of the issues among the grouped projects. The AER has then inferred the average finding of the sampled projects within a group to be the overall finding for the group. The AER has inferred findings for the projects in the sample as findings for projects outside the sample, but only where the AER considers there is a likelihood that concerns with the in-sample projects will also exist in the out-of-sample projects.

The AER's claim that a portion of projects 'will inevitably escape regulatory scrutiny' does not therefore mean that the AER has in practice been unable to make any adjustments to DNSP's expenditure forecasts for projects which it has not been able to review in detail. In practice the AER has adjusted DNSP's capital expenditure for projects which have not been reviewed in detail, and continues to do so.

The AER highlights in its rule change proposal the case of the Victorian DNSPs as being one where it was not able to scrutinise all projects. Specifically the AER comments that:[152]

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[150] AER (2009), *South Australia Draft Distribution Determination 2010-11 to 2014-15*, Draft Decision, 25 November 2009, pages 145- 146.

[151] AER (2011), *Draft Distribution Determination Aurora Energy Pty Ltd 2012–13 to 2016–17*, Draft Decision, November 2011, page 114.

> In the case of the Victorian DNSPs, the AER was only able to apply an adjustment to the 30 per cent of the proposed augmentation capex that had been examined in detail.

The AER chairman, Andrew Reeves, also highlighted this case in his presentation to the November public forum held by the AEMC in relation to the AER's rule change proposal.[153] Mr Reeves made statements in that presentation to the effect that the AER had been restricted under the Rules from applying the adjustment it made to the 30 per cent of projects examined in detail across all of the Victorian DNSPs' proposed augmentation capex.[154] However, we note that this was not the reasoning given by the AER in its Final Determination for the Victoria DNSPs. Rather the AER noted in its determination that it's decision not to extrapolate the adjustment to the remaining 70 per cent of projects in this particular case (as it had done in its Draft Decision for the Victorian DNSPs[155]) was based on its view that:[156]

> The AER accepts that there should be further consideration, including broader consultation with industry and other stakeholders, before the 'weighted average probability assessment' is applied to regulatory decisions in such a way.

This followed criticisms by some of the Victorian DNSPs that the methodology used for the extrapolation 'was subjective and untested'.[157] There is no mention in the AER's determination of restrictions under the Rules on its ability to extrapolate the results from sampled projects across the whole capex category, where the sampled projects are seen as a reasonable representation of the issues that exist across the whole category.

As discussed earlier, the AER has in practice also adopted a bottom-up approach to the assessment of expenditure for TNSPs. In doing so, the AER has also explicitly adopted a review of the TNSP's planning processes and the sampling of expenditure for specific projects in several of its transmission determinations:[158]

- In its determination for Transend, the AER commented that:[159]

  > The objective of the AER's assessment of specific proposed projects is to test the efficiency and prudence of Transend's policies, procedures, replacement strategies and cost estimates as they relate to the entire forecast capex proposal.

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152 AER (2001), *op cit*, page 29.

153 Andrew Reeves, AER Chairman, *AER rule change proposal, Promoting efficient investment in the interest of consumers*. presentation at AEMC Public Forum, Brisbane, 23 November, slide 10.

154 We note that Mr Reeves' statement on this point can be verified by the AEMC from the transcript made at the public forum. This transcript is not publicly available.

155 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Draft Decision, June 2010, page 316.

156 AER (2010), *Victorian Electricity Distribution Network Service Providers Distribution Determination 2011–2015*, Final Decision, October 2010, page 423.

157 AER (2010), *Op cit*, page 424.

158 We note that in the determination for SP AusNet, PB Power concluded that it was not possible to extrapolate findings from the detailed project reviews to the balance of SP AusNet's forecast capex allowance without undertaking a detailed bottom-up review of individual projects. AER (2007), *SP AusNet Transmission Determination 2008-09 to 2013-14*, Draft Decision, 31 August 2007, pages 66-69.

159 AER (2009), Transend Transmission Determination 2009-10 to 2013-14, Final Decision, 28 April 2008, page 35.

> The AER considers these to be relevant considerations in determining whether it is satisfied Transend's total forecast capex proposal reasonably reflects the capex criteria.

- In its determination for TransGrid the AER noted that PB Power had assessed a sample of TransGrid's network and non-network projects:[160]

> The AER considers that the sample of TransGrid's projects subject to detailed review is representative of the total forecast capex program and is indicative of the issues likely to be encountered across TransGrid's entire proposed forecast capex allowance. This provides the basis for making a 'top down' adjustment that the AER considers is appropriate in determining whether it is satisfied on the whole that TransGrid's proposed forecast capex allowance reasonably reflects the capex criteria, taking into account the capex criteria [sic]. [..] PB's extrapolation of the scoping factor is applied only unreviewed capex projects. The AER considers that the approach that PB has adopted in extending the findings of the detailed sample project reviews to the remainder of the forecast capex allowance is reasonable.

- In its determination for ElectraNet, the AER noted that it had reviewed both a sample of projects and also the cost estimation process, in order to determine the reasonableness of the overall capex program.[161]

We note that the case of TransGrid was also highlighted by the AER Chairman, Andrew Reeves, it his presentation to the AEMC's November public forum, as an example of where the AER had been unable to extend its adjustment to the expenditure forecasts for sampled projects to projects which had not been sampled.[162] It is apparent from our review of the AER's Final Determination for TransGrid that in fact the AER did claim to have made a 'top down' adjustment' across unreviewed capex projects (albeit that this top down adjustment was reduced in the AER's Final Determination compared to the Draft Determination). Notwithstanding this point, there is also no restriction in the Chapter 6A Rules which would have prevented the AER from making this adjustment, had it considered it appropriate (ie, the restriction in Chapter 6A which requires substitute values adopted by the AER to be based on the TNSPs' proposal, and only amended to the extent necessary to enable it to be approved in accordance with the Rules, does not apply to the expenditure forecasts, as a consequence of 6A.13.2(b)).

The evidence from the AER's bottom-up assessment of expenditure in the case of the TNSP's, and particularly its use of sampling, therefore provides further evidence that the AER is not restricted from making adjustments to expenditure in relation to projects it has not been able to review in detail.

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160 AER (2009), *TransGrid Transmission Determination 2009-10 to 2013-14*, Final Decision, 28 April 2009, page 28.

161 AER (2007), *ElectraNet Transmission Determination 2008-09 to 2012-13*, Draft Decision, 9 November 2007, page 66.

162 Andrew Reeves, AER Chairman, *AER rule change proposal, Promoting efficient investment in the interest of consumers*. presentation at AEMC Public Forum, Brisbane, 23 November, slide 10.

4.3.5. Inconsistency with current incentive framework

The AER contends that only assessing proposed expenditure through a bottom-up approach is inconsistent with the current incentive framework.[163] The AER makes this statement in the context of its comments on the operation of the current Rules for DNSPs. The AER does not distinguish between operating and capital expenditure in making this point.

The revenue and pricing principles in the NEL require that the Rules provide effective incentives on NSPs to be economically efficient:[164]

> A regulated network service provider should be provided with effective incentives in order to promote economic efficiency with respect to direct control network services the operator provides. The economic efficiency that should be promoted includes-
>
> (a) Efficient investment in a distribution system or transmission system with which the operator provides direct control network services;
>
> (b) The efficient provision of electricity network services; and
>
> (c) The efficient use of the distribution system or transmission system which the operator provides direct control network services.

The current Rules provide a number of incentives on both DNSPs and TNSPs to outperform the expenditure allowances included in their regulatory determinations.

In relation to operating expenditure, the incentive framework under the current Rules reflects the following:

1. NSPs retain the benefit during the regulatory period of any reduction in operating expenditure below the expenditure forecast included in the regulatory determination. They also bear the risk during the regulatory period if operating expenditure exceeds the level forecast in the regulatory determination;[165] and
2. The efficiency benefit sharing scheme (EBSS), which operates to provide an additional increment or decrement to building block revenue in the following regulatory period, to ensure that any efficiency gains or losses are retained by the NSP for five years following the year in which they are made.

For capital expenditure, the current incentive framework in the Rules for both TNSPs and DNSPs arises through the roll-forward of the regulatory asset base at the end of the regulatory period on the basis of actual depreciation[166] and actual capital expenditure. This

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163 AER (2011), *op cit*, page 30.

164 National Electricity Law, 7A.

165 The operation of the cost pass-through provisions included in the Rules in 6.6 and 6A.7.3 modify the operation of the incentive framework for costs arising in relation to certain specified events.

166 The use of actual depreciation in the roll-forward of the regulatory asset base is prescribed under the Rules for TNSPs (Schedule 6A.2(f)(5)). For DNSPs the AER has the discretion to determine whether it will use actual or forecast depreciation in rolling-forward the regulatory asset base, but it must specify the approach in intends to take for the following regulatory period as part of its determination (6.12.1(18)). To date the AER has opted to undertake the roll-forward for DNSPs on the basis of actual depreciation.

provides a low-powered incentive on the NSP to reduce capital expenditure below the level forecast in the regulatory determination, since the additional revenue allowed in the determination to reflect the depreciation and return on capital for the higher level of forecast capital expenditure is retained by the NSP and not 'clawed back' at the time of the next determination.

The way in which the expenditure forecasts are assessed at the time of the AER's regulatory determination is not the mechanism through which incentives are provided to NSPs to out-perform those forecasts. The expenditure forecasts are determined on an *ex ante* basis, prior to the start of the regulatory period. However the expenditure forecasts do not subsequently limit the NSP in relation to the type and amount of its actual expenditure over the regulatory period. The NSPs have an incentive to outperform the ex ante expenditure forecasts during the regulatory period, since they will retain the benefit from doing so. This incentive is not created by the method that is used to derive the forecasts, but by locking-in the *ex ante* forecasts for a period and permitting the NSP to retain the benefits (or bear the costs) if they are able to out-perform (or under-perform) against those forecasts.

The AER itself has explicitly recognised that there is no link between the basis on which the expenditure forecasts are determined and the subsequent actual expenditure decisions of the NSP. For example, in its determination for TransGrid, the AER expressly commented that:[167]

> Although the AER is requiring a number of adjustments based on a specific project review, it is important to understand it is the total of the proposed forecast capex allowance which the AER must either accept or reject, on the basis of the capex criteria having regard to the capex factors. In accordance with the ex ante framework provided for in Chapter 6A, the AER's project specific conclusions do not bind TransGrid to a particular set of project specific capex budgets—TransGrid has the ultimate discretion on how it allocates its capex allowance.

The AER has made similar statements in its determinations for Transend, ElectraNet and SP AusNet.[168]

The AER's contention that assessing proposed expenditure through a bottom-up approach is inconsistent with the current incentive framework is therefore incorrect.

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[167] AER (2008), *TransGrid Transmission Determination 2009-10 to 2013-14*, Draft Decision, 31 October 2008, page 49.

[168] See: AER (2009), Transend Transmission Determination 2009-10 to 2013-14, Final Decision, 28 April 2008, page 64; AER (2008), ElectraNet Transmission Determination 2008-09 to 2012-13, Final Decision, 11 April 2008, page 62; and AER (2008), SP AusNet Transmission Determination 2008-09 to 2013-14, Final Decision, 31 January 2008, page 83.

5. Conclusions

Our assessment of the available evidence from AER determinations over the last five years does not support the AER's contentions that the current Rules are deficient in terms of:

- resulting in systemically inflated expenditure forecasts having been reflected in determinations (and therefore higher electricity prices);
- placing an evidentiary burden on the AER, which has further contributed to a systemic upward (statistical) bias in the determination of expenditure forecasts; and
- place additional restrictions on the AER's assessment of expenditure in the case of DNSPs.

5.1. Systemically inflated forecasts

The AER's overarching concern with the current Rules (both Chapter 6A and Chapter 6) is that it has in practice resulted in inflated forecasts of capital and operating expenditure being reflected in regulatory determinations, which in turn has contributed to the price rises which have been faced by consumers

Our review of the AER's determinations under both Chapter 6A and Chapter 6 highlights that actual experience does not support any view that the AER has been constrained under the current Rules to accept inflated total expenditure forecasts proposed by the NSPs. The AER has not accepted NSP's proposed total expenditure forecasts in any of its determinations.

In its transmission determinations, the AER has substituted its own value for the expenditure it is satisfied reasonably reflects the expenditure criteria in all cases. In making this substitution, the relevant restriction on the AER was only that the substitute forecast it determined is one that it was satisfied reasonably reflects the operating or capital expenditure criteria, as relevant. It therefore follows either that:

1. The values for total expenditure substituted by the AER do reflect its view of the required expenditure for those TNSPs - and therefore that in practice there has been no systemic inflation in the AER's determination of expenditure forecasts for the TNSPs; or
2. The AER has to date chosen not to exercise the full extent of its discretion under Chapter 6A in making its substitute expenditure forecast decision - any upward bias in the expenditure forecasts reflected in the AER's decisions has therefore been a consequence of the AER's own approach, rather than the framework in the Rules.

In neither of the above cases does the actual experience to date indicate that there is any deficiency in the current Rules in the manner in which the AER contends there is. There is therefore nothing in the experience to date which would support an argument for granting the AER a greater degree of discretion in relation to substituting a TNSP's expenditure forecast.

In its distribution determinations, the AER has in practice adopted an approach consistent with its approach for TNSPs. None of the AER's final determinations contain references to 'ranges' or to adjustments only being to the 'top of the range'. Where it has discussed ranges, the AER has been explicit about adopting the mid-point of the potential range of forecasts, rather than the upper bound. It is therefore not clear that the AER has in practice been

restricted in substituting expenditure for the DNSPs to only bring the expenditure forecasts back to the 'top of the range', as it contends.

5.2. Evidentiary burden

The AER highlights the 'evidentiary burden' it faces under the current 'reasonably reflects' test as a further factor leading to the systemic upward inflation of expenditure forecasts. The AER contends both that it faces an evidentiary burden under the Rules and also that it must first prove that the proposed expenditure is not efficient and not prudent. Rather the AER is required under the Rules to reject the NSP's proposal unless it is satisfied that the forecast reasonably reflects the expenditure criteria. This requires the NSP to provide sufficient information to ensure that the AER is so satisfied, as evidenced by the actual practice of the AER to date in rejecting proposed expenditure for which it considers the NSP has provided insufficient evidence. The AER's approach in this regard has been supported by Tribunal decisions.

The AER contends that the current degree of prescription in the Rules 'provides the regulator with limited ability to interrogate [..] forecasts proposed by NSPs'. Our conclusion from reviewing the AER's determinations to date is that the AER's ability to scrutinise and interrogate forecasts proposed by the NSPs is not limited under the current Rules. The AER is able to review the NSPs' forecasts directly, compare them with historic information, undertake its own analysis - including top-down assessments using benchmarking and its own models (such as the AER's repex model for estimating RQM capex), employ experts to review the forecasts to require the NSPs to provide further substantiating information, before it will accept the forecast.

We also note that, contrary to the AER's contentions, its proposed Rule changes not enhance the AER's ability to scrutinise the NSP's forecasts. Rather the changes would instead provide the AER with greater discretion to substitute its own forecast for those provided by the NSP.

5.3. Restrictions on the AER's analysis under Chapter 6

The AER also makes a number of contentions in its rule change proposal in relation to the manner in which the current Chapter 6 Rules have operated to restrict its analysis for DNSPs. Our review of the AER's twelve final determinations made under Chapter 6 has highlighted that the AER's contentions are not supported by its decisions to date. Specifically:

- The AER contends that it is 'driven' to the use of a line-by-line assessment of expenditure forecasts for DNSPs as a consequence of the restrictions it faces under Chapter 6. However the AER has chosen to adopt the same line-by-line assessment for TNSPs in each of its four transmission determinations, where there are clearly no restrictions in the Rules equivalent to those highlighted by the AER in Chapter 6.
- The AER contends that it is restricted in practice from conducting top-down benchmarking. In actuality, the AER has adopted benchmarking in many of its distribution determinations. Where the AER has not been able to utilise benchmarking, it has identified the lack of available data or differences between businesses as the reason for this restriction, rather than any provisions in the Rules.

- The AER has explicitly considered the deliverability of capital expenditure in all of its final determinations for the DNSPs, despite its contention that it has been restricted by the Rules from doing so.
- The AER contends that a portion of projects 'will inevitably escape regulatory scrutiny'. In practice the AER has adjusted the capex forecast for a number of NSPs for projects which have not been reviewed in detail, on the basis of the sample of projects that have been directly examined. Where the AER has decided not to extend the results of the sample to the whole it has been because of its concern about the robustness of such an adjustment.
- The way in which the expenditure forecasts are assessed at the time of the AER's regulatory determination is not the mechanism through which the subsequent incentives NSPs have to out-perform those forecasts are created. The AER's contention that assessing proposed expenditure through a bottom-up approach is inconsistent with the current incentive framework is therefore incorrect.

Appendix A. Authors

Jeff Balchin is a Principal in the PwC Economics and Policy team, previously being a director of the Allen Consulting Group and prior to that in various positions in the Commonwealth Government. Jeff has over 17 years of experience in relation to economic regulation issues across the electricity, gas, airports, ports and water industries in Australia and New Zealand. He has been an adviser to governments, regulators, customers and infrastructure providers on the design, economic interpretation and application of economic regulation, which has included key roles in many of the landmark matters.

Catherine Dermody is a Partner in Gilbert + Tobin's Competition & Regulation group. Catherine provides advice in relation to electricity, gas and telecommunications regulation, and has advised both regulators and regulated entities in regulatory determination processes and merits reviews of those processes. Prior to working at Gilbert + Tobin, Catherine spent six years at the Australian Competition and Consumer Commission involved in infrastructure regulation and two years as a legal advisor at the Office of Gas and Electricity Markets in the United Kingdom.

Greg Houston is a Director of NERA Economic Consulting, based in Sydney. Greg has twenty five years' experience in the economic analysis of markets and the provision of expert advice in litigation, business strategy, and policy contexts. Greg's work in the Asia Pacific region principally revolves around the activities of the enforcement and regulatory agencies responsible for competition, economic regulation and securities market matters, many of whom also number amongst his clients. In December 2005 Greg was appointed by the Hon Ian Macfarlane, then Minister for Industry, Tourism and Resources, to an Expert Panel to advise the Ministerial Council on Energy on achieving harmonisation of the approach to regulation of electricity and gas transmission and distribution infrastructure in Australia. During the 2005-06 period Greg also advised both the AEMC and the Ministerial Council on Energy on the development of the rules now applying to both the transmission and distribution network service providers.

Ann Whitfield has nineteen years experience working as an economist for both private consultancies and government. Ann's particular areas of expertise include utility regulation, where she has advised both regulators and utilities across a wide range of regulatory issues. Ann was involved with the initial development of both Chapter 6 and Chapter 6A of the National Electricity Rules.

Appendix B. Review of the Jurisdictional Decisions – Electricity DNSPs

B.1 Aurora Energy (draft determination) (Tasmania) – November 2011

	Aurora Energy Capex	**Aurora Energy Opex**
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a range of Aurora's projects and programs.	Yes – the AER reviewed a range of Aurora's projects and programs.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – adjustments were made to specific capex categories.	Yes - adjustments were made to specific opex categories.
Did any AER substitute comprise *different* expenditure?	Not explicitly - the AER notes that Aurora could develop a much lower cost short term network solution than the proposed Sandford sub transmission project network solution, potentially involving some further voltage support and/or the use of mobile generation during peak periods. However, while the AER has 'adjusted Aurora's total forecast capex where Aurora's proposal has not been justified as reasonably reflecting the efficient costs of achieving the capex objectives' it does not appear to have done so by adopting different network solutions.	No.
Did the AER consider the deliverability of expenditure?	No.	No.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER states that it 'considers Aurora's proposed total forecast capex is more than Aurora requires to achieve the capex objectives.'	Yes – the AER states that it 'is not satisfied Aurora's proposed total forecast opex reasonably reflects the opex criteria'.
Did the AER discuss an expenditure range?	Only implicitly - The AER states that they have 'estimated a substitute total capex forecast for Aurora that the AER considers reasonably reflects the capex criteria, having regard to the capex	Only implicitly - the AER substitutes a total forecast opex that it states 'reduces Aurora's proposal of total forecast opex to the minimum extent necessary so that the AER may approve

	factors. This estimate reduces Aurora's proposal of total forecast capex only to the extent necessary to comply with the NER.'	Aurora's total forecast opex in accordance with the NER'.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	Yes – the AER looked at a sample of demand driven capex projects, and applied the findings across unreviewed projects in the same group.	No.
Did the AER (or its consultants) adopt benchmarking?	Yes - the AER used benchmarking to compare Aurora's past performance and forecasts with other DNSPs, as a reference for assessing Aurora's efficiency.	Yes – the AER benchmarked Aurora's historic opex against the historic opex of other DNSPs to provide 'some guidance' on the relative efficiency of Aurora's historic opex.
If so, were substituted values based on benchmark estimates?	Yes, implicitly – the AER made a $12m line item adjustment to Aurora's proposed capex to 'capex projects to address maximum demand growth that are too extensive in scope and too high relative to benchmarks'.	No.
Did the AER adopt other in-house assessment approaches/models?	Yes – the AER used its repex model to assist with forecasting age-related capex required to replace assets that have come to the end of their useful life.	No.
Did the AER employ consultants to review the DNSPs' forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the DNSP?	Not applicable – draft determination.	Not applicable – draft determination.
What was the total % adjustment made to expenditure forecasts by the AER?	Draft decision - 24 per cent reduction compared with NSP initial proposal.	Draft decision - 9 per cent reduction compared with NSP initial proposal.

B.2 CitiPower, Powercor, JEN, SP AusNet and United Energy (Victoria) – October 2010

	Victorian DNSPs **Capex**	**Victorian DNSPs** **Opex**
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed individual categories of capex, and a range of the DNSPs' projects and programs.	Yes – the AER reviewed specific categories of opex.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – adjustments were made to specific capex categories.	Yes – adjustments were made to specific opex categories.
Did any AER substitute comprise *different* expenditure?	No.	No.
Did the AER consider the deliverability of expenditure?	Yes – the AER states that, amongst other things, the assessment of the total forecast capex involved examination of 'the deliverability of the forecast capex'.	No.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER states that they were not 'satisfied that the total of each of the Victorian DNSP's proposed forecast capex reasonably reflects the capex criteria in accordance with clause 6.5.7(c) of the NER.'	Yes – the AER states that, having considered each of the Victorian DNSPs' revised forecast opex proposals in accordance with the opex factors in clause 6.5.6(e) of the NER, the AER is not satisfied that each component of operating expenditure associated with the Victorian DNSPs' revised forecasts opex proposals forms a total opex forecast the reasonably reflects the opex criteria.
Did the AER discuss an expenditure range?	No.	No.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	Not in its final decision (although it did in its Draft Decision in the case of reinforcement capex).	No.
Did the AER (or its consultants) adopt benchmarking?	No – the AER notes that they do not presently have sufficient data of appropriate quality to comprehensively and conclusively benchmark the capex incurred against that which an efficient DNSP should incur in the circumstances.	Yes – in developing the base year opex for the DNSPs (with the exception of United Energy), the AER had regard to the benchmark opex that would be incurred by an efficient DNSP over the regulatory control period. Specifically, the roll forward of actual 2009 costs for the expected costs in 2010 was based on a benchmark

		efficiency adjustment.
If so, were substituted values based on benchmark estimates?	N/A	Yes – although the benchmark estimates are only one element of the substitution.
Did the AER adopt other in-house assessment approaches/models?	Yes – in analysing the reliability and quality maintained capex forecasts, the AER relied upon its own 'repex' model to formulate their alternative forecast. The AER's repex model was developed by Nuttall Consulting in September 2009 and it forecasts replacement capex needs at an aggregate level using age as a proxy for the many factors that drive individual asset replacements. The model has been calibrated so that it reflects historical levels and costs.	No.
Did the AER employ consultants to review the DNSPs' forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the DNSP?	Yes. In its draft decision, the AER was not satisfied with a number of non-network IT projects and substituted its own forecasts. In support of their revised proposals, the DNSPs submitted additional information justifying the need for additional non-network capex. In its final decision, the AER accepted the revised capex forecasts of each DNSP, on the basis that the individual projects 'appeared to be prudent and efficient'.	Yes – the AER elicited further information from Victorian DNSPs regarding various step changes and in many cases accepted the proposed step change in light of this further substantiation. For example, in its draft decision for CitiPower the AER was not satisfied that the proposed expenditure for the West Melbourne terminal station reasonably reflected efficient costs, and removed the proposed step change from the opex forecast. In its revised proposal, CitiPower provided additional information. In its final decision, the AER stated that it was satisfied that CitiPower has provided reasonably robust analysis.

What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal – 13 per cent reduction for the whole of Victoria but ranging from a 27 per cent reduction to a 3 per cent increase[169] for the individual DNSPs. Revised proposal – 14 per cent reduction for the whole of Victoria but ranging from a 25 per cent reduction to a 8 per cent reduction for individual DNSPs.	Initial proposal – 8 per cent reduction for the whole of Victoria but ranging from a 3 per cent reduction to a 12 per cent reduction for the individual DNSPs. Revised proposal – 13 per cent reduction for the whole of Victoria but ranging from a 17 per cent reduction to a 11 per cent reduction for the individual DNSPs.

[169] The capex forecast for SP AusNet increased between its initial and revised proposals, with the consequence that the AER's final determination for capex is above SP AusNet's initial proposal. However, the AER rejected SP AusNet's capex forecast in both its draft and final determinations, and substituted its own, lower capex forecast in each case.

B.3 ETSA Utilities (South Australia) – May 2010

	ETSA Utilities Capex	ETSA Utilities Opex
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a range of ETSA's projects and programs.	Yes – the AER reviewed specific categories of opex.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – adjustments were made to specific capex categories.	Yes – adjustments were made to specific opex categories.
Did any AER substitute comprise *different* expenditure?	Yes – the AER agreed with PB that the capex required at certain substations where new fences were needed would be more efficiently achieved through rectification work on existing fences, rather than by replacing fences to a high security standard.	No.
Did the AER consider the deliverability of expenditure?	Yes – in response to deliverability concerns raised by the Energy Consumers Coalition of SA, the AER engaged Energy and Management Services (EMS) to review the deliverability of ETSA's capex. The AER concluded that it was satisfied that the capex proposal will be deliverable.	Not explicitly for opex. The AER notes that they engaged EMS to undertake an updated review of ETSA's capex deliverability which, amongst other things, considered the requirements for capex *and* opex. However, the AER makes no explicit comment about the deliverability of the opex program, as it does with capex.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER stated in its final decision that it "is not satisfied that the proposed forecast capex allowance satisfies the capex criteria under clause 6.5.7(c) of the NER". In its final decision, the AER states that it has made an "estimate of the total capex required by ETSA Utilities in the next regulatory control period, that reflects the capex criteria taking into account the capex factors"	Yes – the AER stated that it "is not satisfied that the proposed forecast opex allowance reasonably reflects the opex criteria under clause 6.5.6(c) of the NER".
Did the AER discuss an expenditure range?	No, in general. However, there is one example of the AER discussing the cost range for rectifying damaged fences and the cost range for replacing fences to a high security standard (both estimated by	No, in general. However, PB notes that, in their experience, the real annual growth in maintenance and repair and emergency response related opex is expected to range from 1.5 to 3.0

	PB).	per cent.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	Yes – the AER made a proportionate adjustment to the 48 per cent of replacement capex that was not subject to detailed review. Further, in the draft decision, PB conducted a detailed review of the substation security and fencing and CBD aged asset replacement programs accounting for approximately 55 per cent of the expenditure.	No.
Did the AER (or its consultants) adopt benchmarking?	Yes – PB Power was required to undertake a review of unit costs where necessary.	Yes – but the AER noted the limitations of the benchmarking work in terms of the size of data set and discrepancies in opex definitions: "it will currently limit its use to a top-down testing of more detailed bottom-up assessment."
If so, were substituted values based on benchmark estimates?	No – PB's high-level analysis did not identify any issues in relation to ETSA's unit costs that PB considered warranted further investigation.	No – however, the AER states that in making its conclusions on forecast opex, it has had 'regard to' benchmark expenditure.
Did the AER adopt other in-house assessment approaches/models?	No.	No.
Did the AER employ consultants to review the DNSP's forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the DNSP?	Yes. In its draft decision, the AER concluded that double counting for some of the engineering and operational staff should be removed from the capex proposal. In its revised proposal, ETSA accepted some of these elements but reinstated approximately $5.8m of this capex, which it did not consider had been double counted. Further, ETSA sought advice from KEMA Consulting to clarify the extent of double counting of labour costs across opex and capex. KEMA Consulting advised that an amount of $1.1m, previously proposed by ETSA as capex, related to staffing costs for Network Controllers and Network Dispatchers, and should therefore be	Yes. In its draft decision, the AER stated that ETSA did not adequately model the expected capex/opex trade off in relation to asset replacement activities, and included a substitute trade off estimate in the forecast opex modelling. In its revised proposal, ETSA did not agree with the AER's draft decision and provided a report by SKM supporting its claim as well as remodelling this opex 'in-house'. In the AER's final decision, PB confirmed that the SKM modelling and ETSA's own modelling were appropriate. Overall, the AER concluded that they were satisfied ETSA's modelling of capex/opex trade off results in expenditure that

	considered opex. ETSA reflected KEMA Consulting's advice in its revised regulatory proposal. In the AER's final decision, they stated that, having reviewed the revised regulatory proposal and the advice from PB and KEMA Consulting, the AER is satisfied that ETSA's revised forecast capex for the network control project reflects an appropriate estimate of staffing costs.	reasonably reflects the opex criteria.
What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal - 29 per cent reduction Revised proposal - 11 per cent reduction.	Initial proposal – Approximately a 12 per cent reduction (both pre and post the Australian Competition Tribunal decision). Revised proposal – 5 per cent reduction.

B.4 Energex, Ergon Energy (Queensland) – May 2010

	Queensland DNSPs Capex	Queensland DNSPs Opex
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a range of Ergon and Energexs' projects and programs.	Yes – the AER reviewed a range of Ergon and Energexs' projects and programs.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – adjustments were made to specific capex categories.	Yes – adjustments were made to specific opex categories.
Did any AER substitute comprise *different* expenditure?	No.	No.
Did the AER consider the deliverability of expenditure?	Yes – in its final decision on major property project capex, the AER states that Ergon has demonstrated that the property program has been prioritised and is based on a delivery timetable that appears reasonable and prudent.	Not explicitly for opex.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER stated in the final decision that it "is not satisfied that Energex's proposed forecast capex allowance reasonably reflects the capex criteria under clause 6.5.7(c) of the NER" and that it "is not satisfied that Ergon Energy's proposed forecast capex allowance reasonably reflects the capex criteria under clause 6.5.7(c) of the NER". In its final decision, the AER states that, for both Ergon and Energex, the estimate of the total capex required in the next regulatory control period reflects the capex criteria taking into account the capex factors.	Yes – the AER stated in the final decision that it "is not satisfied that the proposed forecast opex allowance reasonably reflects the opex criteria under clause 6.5.6(c) of the NER, including the opex objectives" for Energex and that it "is not satisfied that the proposed forecast opex allowance reasonably reflects the opex criteria under clause 6.5.6(c) of the NER" for Ergon.
Did the AER discuss an expenditure range?	Yes – the AER applied the mid-point of Ergon's estimated range for the proportion of corporation initiated augmentation (CIA) capex sensitive to the demand forecast.	No.
Did the AER adopt sampling, and apply the outcome expenditure	Yes – PB applied a constant 36.4 per cent reduction	No.

adjustments to projects which were not explicitly reviewed?	across Ergon's total proposed sub-transmission CIA capex. This percentage is stated to be based on the known proportion of capex deferred by the latest planning documentation	
Did the AER (or its consultants) adopt benchmarking?	Yes – PB Power reviewed high-level unit costs.	No.
If so, were substituted values based on benchmark estimates?	No – PB's high-level analysis did not identify any issues in relation to the DNSPs' unit costs that PB considered warranted further investigation.	No.
Did the AER adopt other in-house assessment approaches/models?	No.	No.
Did the AER employ consultants to review the DNSPs' forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the DNSP?	Yes. In its draft decision, the AER concluded that the prudence and efficiency of the major property project expenditures proposed by Ergon had not been adequately demonstrated. The AER noted Ergon had been unable to provide business case documentation or other supporting documentation to justify the major property project expenditures proposed. In its revised proposal, Ergon submitted additional investment justification for the proposed projects, including field asset condition reports, site assessments, business cases and recommendation documentation. As part of the AER's final decision, PB stated that it was satisfied that, with the exception of the Townsville and Rockhampton projects, Ergon had demonstrated that all major property projects were	No.

	prudent and efficient. The AER stated in its final decision that it is satisfied that, with the exception of the Townsville and Rockhampton projects, Ergon has demonstrated that the revised capex proposal for major property projects is prudent and efficient.	
What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal – 17 per cent reduction for Ergon and an 11 per cent reduction for Energex. (Note that an Australian Competition Tribunal decision increased Ergon's capex allowance, which translated into a 15 per cent reduction on the initial proposal.) Revised proposal – 20 per cent reduction for Ergon and an 8 per cent reduction for Energex.	Initial proposal –10 per cent reduction for Ergon and an 11 per cent reduction for Energex. (Note that an Australian Competition Tribunal decision increased Ergon's opex allowance, which translated into a 9 per cent reduction on the initial proposal.) Revised proposal – 6 per cent reduction for Ergon and a 1 per cent reduction for Energex.

B.5 EnergyAustralia, Integral Energy, Country Energy (NSW) - April 2009[170]

	NSW DNSPs Capex	NSW DNSPs Opex
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a range of projects and programs.	Yes – the AER reviewed a range of projects and programs.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – adjustments were made to specific capex categories.	Yes – adjustments were made to specific opex categories.
Did any AER substitute comprise *different* expenditure?	No.	No.
Did the AER consider the deliverability of expenditure?	Yes – in its draft decision, the AER noted that should the credit crisis persist, the NSW DNSPs may experience financial resource constraints going forward, which may mean some projects are not delivered. Further, the AER sought clarification from the NSW DNSPs regarding any matters or circumstances that may affect their ability to obtain finance to deliver the capex programs they proposed for the next regulatory control period. The NSW DNSPs indicated that they sought advice from the NSW Treasury Corporation on their ability to obtain finance and that access to finance was not expected to constrain their ability to undertake capital works.	No.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER stated in the final decision that it "is not satisfied that the proposed forecast capex allowances of each NSW DNSP reasonably reflect the capex criteria, under clause 6.5.7(c) of the transitional chapter 6 rules."	Yes – the AER stated in the final decision that it is not satisfied that each of the DNSPs' forecast total opex reasonably reflects the opex criteria under clause 6.5.6(c) of the transitional chapter 6 rules, including the opex objectives.

[170] The AER's 2009 determination for the NSW DNSPs was made under the Transitional Provisions. However the Transitional Provisions reflected the same provisions in relation to the assessment and substitution of expenditure forecasts as the current Chapter 6 Rules.

	It its final decision the AER states that its estimates of the total capex required in the next regulatory control period reflects the capex criteria taking into account the capex factors.	
Did the AER discuss an expenditure range?	Yes – in its draft decision, the AER noted that there is a degree of uncertainty regarding the efficient level of substation costs and concluded that the efficient costs that a prudent operator in the circumstances of EnergyAustralia would require would be the value midway between EnergyAustralia's and SKM's estimates.	Yes. In escalating network maintenance costs, Wilson Cook forecast costs using the mid–point between EnergyAustralia's proposed growth rate and Wilson Cook's estimated growth rate. In its final decision, the AER stated that it "considers that it is acceptable to use a mid–point between upper and lower estimates when there is reason to believe that a more reasonable value lies somewhere between these estimates" and accepted Wilson Cook's mid-point.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	No.	No.
Did the AER (or its consultants) adopt benchmarking?	Yes – In the AER's draft decision it stated that, when benchmarked in comparable terms against other DNSPs, Country Energy's proposed IT expenditure appeared inefficiently high, and had not been sufficiently justified in financial terms.	Yes – In both the draft and final decisions, Wilson Cook undertook a benchmarking analysis in relation to EnergyAustralia's total controllable opex but limited their application to tests of reasonableness of their bottom up analysis.
If so, were substituted values based on benchmark estimates?	Yes in the draft decision but not in the final decision.	No – the AER notes that it has based its forecast of controllable opex for EnergyAustralia on a bottom up assessment of EnergyAustralia's proposed opex but that it has had regard to the top down benchmarking analysis of EnergyAustralia's opex conducted by Wilson Cook.
Did the AER adopt other in-house assessment approaches/models?	No.	No.
Did the AER employ consultants to review the DNSPs' forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the DNSP?	Yes. In its draft decision, the AER was not satisfied that	Yes. In its draft decision the AER did not approve

	the non-civil zone substation capex proposed by EnergyAustralia reasonably reflected the efficient costs that a prudent operator, in the circumstances of EnergyAustralia, would require to achieve the capex objectives. The AER noted that SKM had estimated much lower costs for the same zone substations. In its revised proposal, EnergyAustralia did not accept the AER's draft conclusions and gave a number of reasons why their estimates differ from those of SKM. In the final decision, the AER stated that it was satisfied that EnergyAustralia's capex proposal for zone substation expenditure reasonably reflects the capex criteria, including the capex objectives.	Country Energy's $135m opex for vegetation management as Country Energy had already received an allowance for this item. In its revised regulatory proposal, and in subsequent correspondence with the AER, Country Energy clarified the way that it had spent its opex allowance under the pass through and alleviated the AER's concerns. In their final decision, the AER stated they were satisfied that the reinstatement of $135 million for vegetation management expenditure in Country Energy's forecast opex results in expenditure which reasonably reflects the opex criteria.
What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal –5 per cent reduction for Country Energy, a10 per cent reduction for EnergyAustralia and 8 per cent reduction for Integral Energy. Revised proposal – 4 per cent reduction for Country Energy, 6 per cent reduction for EnergyAustralia and 0.5 per cent reduction for Integral Energy.	Initial proposal – 5 per cent reduction for Country Energy, 14 per cent reduction for EnergyAustralia and 3 per cent increase[171] for Integral Energy. Revised proposal – 7 per cent reduction for Country Energy, 12 per cent reduction for EnergyAustralia and 0.3 per cent reduction for Integral Energy.

[171] The opex forecast for Integral Energy increased between its initial and revised proposals, with the consequence that the AER's final determination for opex is above Integral Energy's initial proposal. However, the AER rejected Integral Energy's opex forecasts in both its draft and final determinations, and substituted its own, lower opex forecast in each case.

B.6 ActewAGL (ACT) - April 2009[172]

	ActewAGL Capex	ActewAGL Opex
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a range of projects and programs.	Yes – the AER reviewed a range of projects and programs.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – adjustments were made to specific capex categories.	Yes - adjustments were made to specific opex categories.
Did any AER substitute comprise *different* expenditure?	No.	No.
Did the AER consider the deliverability of expenditure?	Yes – In the draft decision, the AER stated it was satisfied that the deliverability of the forecast capex program would not be constrained by resource availability, subject to the proviso that ActewAGL could adequately finance its proposed capex program. On 18 February 2009, ActewAGL advised that it was in a strong position to finance its proposed capex program and that there were no current or pending matters or circumstances of which it was aware that would limit its ability to fund its program. In its final decision, the AER stated that it considered that ActewAGL will be able to finance and deliver its proposed capex program in the next regulatory control period.	No.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – In its final decision, the AER states that it is not satisfied that ActewAGL's total forecast capex allowance reasonably reflects the efficient costs, or	Yes – In its final decision, the AER states that it is not satisfied that this total opex forecast proposed by ActewAGL reasonably reflects the

[172] The AER's 2009 determination for ActewAGL was made under the Transitional Provisions. However the Transitional Provisions reflected the same provisions in relation to the assessment and substitution of expenditure forecasts as the current Chapter 6 Rules.

	a realistic expectation of the demand forecast and cost inputs a prudent operator in the circumstances of ActewAGL would require to achieve the capex objectives as provided for in the capex criteria at clause 6.5.7(c) of the transitional chapter 6 rules.	opex criteria under clause 6.5.6(c) of the transitional chapter 6 rules, including the opex objectives.
Did the AER discuss an expenditure range?	No.	No.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	No.	No.
Did the AER (or its consultants) adopt benchmarking?	No.	No.
If so, were substituted values based on benchmark estimates?	NA	NA
Did the AER adopt other in-house assessment approaches/models?	No.	No.
Did the AER employ consultants to review the DNSPs' forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the DNSP?	No.	No.
What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal – 4 per cent reduction. Revised proposal – 8 per cent reduction.	Initial proposal – 13 per cent reduction. Revised proposal – 5 per cent reduction.

Appendix C. Review of the Jurisdictional Decisions – Electricity TNSPs

C.1 Powerlink (Queensland) – Draft Decision, November 2011[173]

	Powerlink Capex	Powerlink Opex
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a number of specific forecast capex projects. The AER also undertook a top-down assessment of Powerlink's capex governance framework, asset management policies, etc.	Yes – the AER reviewed a range of opex expense categories and subcategories. The AER also examined key documents, processes and assumptions.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – the AER made adjustments to specific projects and cost categories.	Yes – the AER made adjustments to specific opex categories as well as substituting its own base year.
Did any AER substitute comprise *different* expenditure?	No.	No.
Did the AER consider the deliverability of expenditure?	Yes – its consultant (EMCa) was required to consider the deliverability of Powerlink's capex program in its technical review.	Yes – for example, via delivery strategies.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER stated that it "does not accept the forecast total capex of $3488 million proposed by Powerlink for the next regulatory control period. The AER is not satisfied the proposed forecast total capex reasonably reflect the capex criteria".	Yes – the AER stated that it "is not satisfied that the total forecast opex proposed by Powerlink reasonably reflects the opex criteria, having regard to the opex factors" and that it "is satisfied that the adjusted total controllable opex… reasonably reflects the opex criteria, taking into account the opex factors".
Did the AER discuss an expenditure range?	Yes – the AER noted that its substituted capex forecast is "the minimum adjustment necessary for Powerlink to meet the National Electricity Rules	Generally, no – however, when determining the self insurance forecast, the AER calculated the expected annual loss based on the average

[173] Note: The AER's 2007 determination for Queensland has been excluded, as it was not undertaken under the current Chapter 6A Rules.

	(NER) criteria" and that the "minimum adjustment to Powerlink's proposed forecast capex required to meet the capex objectives is $1128 million ($2011-12)".	incidences and averages losses per year.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	Yes – the AER reviewed a sample of projects and conducted a top-down assessment. On this basis, it made broader adjustments to load-driven capex, eg, for efficiency	The AER also reviewed a sample of projects to inform its view.
Did the AER (or its consultants) adopt benchmarking?	Yes – the AER undertook benchmarking analysis in relation to Powerlink's non-load driven (eg, replacement) capex and non-network capex (including IT capex).	Yes – the AER benchmarked Powerlink's opex with that of other TNSPs in order to set the base opex.
If so, were substituted values based on benchmark estimates?	No – the AER found that Powerlink's expenditure was consistent with that of other TNSPs.	No – the AER found that Powerlink's expenditure was similar to that of other TNSPs.
Did the AER adopt other in-house assessment approaches/models?	Yes – For example, EMCa and the AER included a $45 million efficiency adjustment to Powerlink's forecast capex. This adjustment was determined by reducing Powerlink's forecast capex by 1 per cent in the second year of the regulatory control period and two per cent thereafter.	Yes – Powerlink used a hybrid approach (calculates a build up of costs for a base year) to establish its routine maintenance forecast, however, the AER determined that a base year approach was appropriate.
Did the AER employ consultants to review the NSP's forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the NSP?	Not applicable – Draft Decision	Not applicable – Draft Decision
What was the total % adjustment made to expenditure by the AER?	Draft Decision – 32 per cent reduction	Draft Decision – 8 per cent reduction.

C.2 Transend (Tasmania) – April 2009

	Transend Networks Capex	Transend Networks Opex
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a sample of augmentation, easement and replacement projects.	Yes – the AER reviewed a range of opex expense categories and subcategories.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – the AER noted that "although Transend has prepared its forecast capex proposal on a detailed project-by-project basis, and the AER has for the most part assessed expenditure in this way, the AER's conclusions relate to a total forecast capex allowance."	Yes – the AER made adjustments to specific opex categories.
Did any AER substitute comprise *different* expenditure?	No.	No.
Did the AER consider the deliverability of expenditure?	Yes – a number of stakeholders questioned Transend's capex program, however, following advice from Transend's Board, the AER was satisfied that Transend is well placed to deliver the capex program.	No.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER stated that it "is not satisfied that this total capex forecast proposed by Transend reasonably reflects the capex criteria under clause 6A.6.7(c)" and that it "is satisfied that the amended ex ante capex allowance of $604 million over the next regulatory control period, reasonably reflects the capex criteria, taking into account the capex factors."	Yes – the AER stated that it "is not satisfied that this total opex forecast proposed by Transend reasonably reflects the opex criteria under clause 6A.6.6(c)" and that it "is satisfied that the amended total forecast opex of $254.3 million over the next regulatory control period reasonably reflects the opex criteria, taking into account the opex factors".
Did the AER discuss an expenditure range?	No.	No.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	No – the AER reviewed a sample of projects. However it is not obvious whether the AER made adjustments to the unreviewed capex projects.	Generally, no – however WorleyParson physically inspected a random sample of Transend's assets in order to assess its maintenance practices.

Did the AER (or its consultants) adopt benchmarking?	Yes – Transend engaged PB to undertake a benchmark assessment of its unit rates. With regards to its consultant's review of PB's analysis, the AER concluded that these costs were reasonable. Further, the AER undertook benchmarking analysis to provide a high-level 'sense check'.	Yes – the AER undertook benchmarking analysis, which it combined with WorleyParson's analysis.
If so, were substituted values based on benchmark estimates?	No – the AER concluded that the unit rates reasonably reflect the efficient costs that a prudent TNSP would require to achieve the capex objectives	No – the AER concluded that Transend's opex was similar to other TNSPs.
Did the AER adopt other in-house assessment approaches/models?	No.	No.
Did the AER employ consultants to review the NSP's forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the NSP?	Yes – further information was requested and submitted to the AER with regard to renewal projects.	No.
What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal – 11 per cent reduction. Revised proposal – 15 per cent reduction.	Initial proposal – 9 per cent reduction. Revised proposal – 10 per cent reduction.

C.3 TransGrid (NSW) – April 2009

	TransGrid Capex	**TransGrid Opex**
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a sample of TransGrid's network and non-network projects.	Yes – the AER reviewed a range of opex expense categories and subcategories.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – the AER made adjustments to specific projects and cost factors.	Yes – the AER made adjustments to specific opex categories.
Did any AER substitute comprise *different* expenditure?	Yes – the AER agreed with PB that a transformer should be re-used rather than purchasing a new one.	No.
Did the AER consider the deliverability of expenditure?	Yes – in response to delivery concerns due to economic uncertainty raised by the EUAA, the AER sought clarification from TransGrid regarding any matters and circumstances that may affect its ability to obtain finance to deliver the capex programs (this was discussed in a section of the AER's final decision entitled 'deliverability of the capex program').	No.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER stated that it "is not satisfied that this total capex forecast proposed by TransGrid reasonably reflects the capex criteria under clause 6A.6.7(c) of the NER" and that it "is satisfied that the amended capex allowance of $2405 million over the next regulatory control period, reasonably reflects the capex criteria, taking into account the capex factors."	Yes – the AER stated that it "is not satisfied that this total opex forecast proposed by TransGrid reasonably reflects the opex criteria under clause 6A.6.6(c) of the NER" and that it "is satisfied that the amended total forecast opex allowance of $758 million over the next regulatory control period, reasonably reflects the opex criteria, taking into account the opex factors."
Did the AER discuss an expenditure range?	No.	No.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	Yes – the AER made a proportionate adjustment to the unreviewed capex projects.	No.

Did the AER (or its consultants) adopt benchmarking?	Yes – PB used benchmarking to assess both TransGrid's business IT proposals and base unit costs including instrument transformers and circuit breakers.	Yes – PB assessed the efficiency of TransGrid's base year costs with consideration to the ITOMs benchmarking study (an international benchmarking study which "benchmarks the maintenance and asset management activities of high-voltage transmission utilities (about 25 transmission organisations from Australia, New Zealand, USA, Europe, UK and Scandinavia)").
If so, were substituted values based on benchmark estimates?	No – following their analysis, PB's did not recommend any adjustment to TransGrid's expenditure	No – the AER was satisfied that TransGrid's base year was representative of efficient expenditure from which to project its forecast opex requirements.
Did the AER adopt other in-house assessment approaches/models?	No.	No.
Did the AER employ consultants to review the NSP's forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the NSP?	Yes – in its draft decision, the AER did not accept a contingent project proposed by TransGrid due to concerns with the project scope and trigger. In its revised proposal, TransGrid stated that it had resolved the planning and approval uncertainties associated with stage one of the project. In the AER's final decision, it states that having reviewed TransGrid's proposal and PB's analysis, it is satisfied that the capex proposal of $35 million reasonably reflects the capex criteria, including the capex objectives.	Yes – in its final decision, the AER reinstated an allowance for self insurance of environmental contamination risk
What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal – 6 per cent reduction. Revised proposal – 4 per cent reduction.	Initial proposal – 11 per cent reduction. Revised proposal – 6 per cent reduction.

C.4 ElectraNet (South Australia) – April 2008

	ElectraNet Capex	ElectraNet Opex
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a sample of ElectraNet's network and non-network projects.	Yes – the AER reviewed a range of opex expense categories and subcategories.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – the AER made adjustments to specific projects and cost categories.	Yes – the AER made adjustments to specific opex categories.
Did any AER substitute comprise *different* expenditure?	No.	No.
Did the AER consider the deliverability of expenditure?	Yes – in its draft decision (in a section entitled 'deliverability of the capex program'), the AER concluded that ElectraNet had the potential to deliver the capex proposal, however, it suggested that ElectraNet should defer three proposed projects.	No.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER stated that it "is not satisfied that this total capex forecast proposed by ElectraNet reasonably reflects the capex criteria under clause 6A.6.7(c)" and that it "is satisfied that the amended ex ante capex allowance of $650 million over the next regulatory control period, reasonably reflects the capex criteria, taking into account the capex factors."	Yes – the AER stated that it "is not satisfied that this total opex forecast proposed by ElectraNet reasonably reflects the opex criteria under clause 6A.6.6(c)" and that it "is satisfied that the amended total forecast opex of $299 million over the next regulatory control period, reasonably reflects the opex criteria, taking into account the opex factors".
Did the AER discuss an expenditure range?	No.	No.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	No – the AER reviewed a sample of projects, however SKM concluded that there were no issues likely to be systematic and so it appears that the AER did not make adjustments to the unreviewed capex projects.	No.

Did the AER (or its consultants) adopt benchmarking?	No.	Yes – SKM undertook benchmark analysis on ElectraNet's controllable opex and Econtech used benchmark analysis in the determination of ElectraNet's labour costs escalators.
If so, were substituted values based on benchmark estimates?	n/a	No – the AER accepted that ElectraNet's costs were reasonable.
Did the AER adopt other in-house assessment approaches/models?	No.	No.
Did the AER employ consultants to review the NSP's forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the NSP?	Yes – in its draft decision the AER considered that ElectraNet should defer three proposed Electricity Transmission Code (ETC) driven projects. The AER sought advice from the ESCOSA on the deferral of these projects. In its revised proposal, ElectraNet accepted the deferral of two of the three projects, however, it considered that the deferral of the third was not feasible. The AER accepted that the third project could not be deferred in its final decision. The AER also accepted ElectraNet's revised proposal for two contingent proposals after not approving of the cost of these projects in its draft decision.	Yes – the AER adjusted ElectraNet's proposed maintenance costs in its draft decision. Following the new information provided by ElectraNet, both SKM and the AER determined that ElectraNet's estimates were reasonable given that the "new information clarifies the processes used by ElectraNet to formulate the scope of the opex projects, as well as indicating that there is only a limited likelihood of further errors in the estimates." Further, in its draft decision the AER noted that a number of maintenance projects could be more correctly classified as capital works. However, following additional information from ElectraNet, the AER and SKM accepted that the protection systems should not be capitalized.
What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal – 17 per cent reduction. Revised proposal – 10 per cent reduction.	Initial proposal – 8 per cent reduction. Revised proposal – 1 per cent reduction.

C.5 SP AusNet (Victoria) – January 2008

	SP AusNet Capex	SP AusNet Opex
Did the AER adopt a line-by-line approach to applying the 'reasonably reflects' criteria assessing expenditure?	Yes – the AER reviewed a number of specific forecast capex projects.	Yes – the AER reviewed a range of opex expense categories and subcategories.
Did the AER adopt a line-by-line approach to substituting expenditure?	Yes – the AER made adjustments to specific projects and cost categories.	Yes – the AER made adjustments to specific opex categories.
Did any AER substitute comprise *different* expenditure?	Yes – SP AusNet proposed to undertake transformer replacements in their initial and revised proposal. However, the AER and PB concluded that the transformer replacements could be deferred given the availability of spare units ready to be placed in service.	Yes – with regards to the power cables repair project forecast, the AER agreed with PB that it was not necessary to test each joint after they were removed. The AER removed the costs relating to these tests from the project's forecast.
Did the AER consider the deliverability of expenditure?	No.	No.
Was the reasonableness of **total** expenditure explicitly considered by the AER?	Yes – the AER stated that "[u]nder cl. 6A.6.7(d) of the NER the AER must not accept SP AusNet's total proposed forecast capex of $860.42m, as it is not satisfied that it reasonably reflects the capex criteria taking into account the capex factors" and that the AER's final decision "provides SP AusNet with sufficient allowance to meet the capex objectives over the forthcoming regulatory control period".	Yes – the AER stated that "is not satisfied that the total opex forecast proposed by SP AusNet reasonably reflects the efficient costs of achieving the opex objectives…" and that it "is satisfied that the [AER's] revised forecast of $979.29m ($2007-08) for the forthcoming period, reasonably reflects the opex criteria, taking into account the opex factors."
Did the AER discuss an expenditure range?	No.	Yes – in order to determine the annual self-insurance allowance for power transformers, the AER took the average of the forecast in SP AusNet's original proposal and its draft decision.
Did the AER adopt sampling, and apply the outcome expenditure adjustments to projects which were not explicitly reviewed?	No – PB concluded that "is not possible for it to extrapolate findings from the detailed project reviews to the balance of SP AusNet's forecast capex allowance without undertaking a detailed bottom-up review of individual projects."	No.

Did the AER (or its consultants) adopt benchmarking?	Yes – PB undertook benchmarking analysis with regards to 70 individual base unit costs of SP AusNet's.	Yes – the AER used benchmarking to determine the cost of management fees.
If so, were substituted values based on benchmark estimates?	Yes – PB determined that SP AusNet's control room costs exceeded the benchmark and the AER agreed with PB in its final decision that it should reject "the additional $0.69m of control building costs included in SP AusNet's revised cost estimate on the basis that it exceeds its benchmark control room costs".	No – it appears that the AER based its final decision on SP AusNet's actual management fee expenditure as opposed to a benchmarked estimate.
Did the AER adopt other in-house assessment approaches/models?	No.	Yes – in order to determine the savings in maintenance costs, the AER "implemented a methodology recommended by PB. This approach involved calculating the annual forecast capex as a portion of the RAB replacement cost, reducing this ratio by 30% to account for expected maintenance savings, and then applying this ratio in SP AusNet's opex model".
Did the AER employ consultants to review the NSP's forecasts?	Yes.	Yes.
Did the AER elicit further substantiating evidence from the NSP?	Yes – in its draft decision, the AER was not satisfied with the proposed replacements of the 220kV and 66kV switchyards for the redevelopment of Brooklyn Terminal Station project. SP AusNet provided "substantial amount of new supporting material" in its revised proposal and the AER accepted that SP AusNet had now justified the need to replace the 220kV circuit breakers and eight of the 18 66kV circuit breakers.	Yes – in its draft decision the AER did not accept SP AusNet's maintenance forecast. However, following the provision of further information in SP AusNet's revised proposal the AER "now satisfied that the NW contract savings assumed in SP AusNet's revised maintenance forecasts, and SP AusNet's forecast taxes reasonably reflect the opex criteria, taking into account the opex factors".
What was the total % adjustment made to expenditure forecasts by the AER? (ie, AER Final Decision compared with NSP's initial and revised proposals)	Initial proposal – 10 per cent reduction. Revised proposal – 10 per cent reduction.	Initial proposal – 5 per cent reduction. Revised proposal – 10 per cent reduction.

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Attachment D

Report

Gilbert + Tobin Lawyers

Assessment of proposed changes to the regulatory decision making process under the National Electricity Rules

GILBERT TOBIN

LAWYERS

Assessment of proposed changes to the regulatory decision making process under the National Electricity Rules

Report for the Energy Networks Association

8 December 2011

SYDNEY MELBOURNE PERTH

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Contents

1 Introduction

On 29 September 2011, the Australian Energy Regulator (**AER**) submitted a rule change proposal to the Australian Energy Markets Commission (**AEMC**) in respect of the National Electricity Rules (**NER**) and the National Gas Rules (**NGR**) (**AER Rule Change Proposal**).

The AER Rule Change Proposal covers a range of matters related to economic regulation of gas and electricity networks, including:

- the framework for assessment of capital and operating expenditure forecasts under the NER;
- capital expenditure incentive schemes applying to electricity network businesses;
- the rate of return framework applying to gas and electricity businesses; and
- the regulatory decision making processes under the NER.

The Energy Networks Association (**ENA**) has asked Gilbert + Tobin to review specific aspects of the AER Rule Change Proposal dealing with the decision making processes under the NER and prepare a report which addresses the following questions:

- whether the evidence from recent AER decision-making processes under the NER supports the AER's contentions as to the problems with the NER in this respect; and
- to the extent that there is evidence of problems with the existing provisions of the NER, whether the AER Rule Change Proposal properly addresses these problems.

The specific matters we have been asked to review are:

- submissions received during a determination process;
- changes to expenditure factors related to the decision-making process;
- identification and use of confidential information; and
- correcting for material errors.

The remainder of this report addresses the above questions in respect of these four process-related matters.

This report has been prepared by Catherine Dermody, a Partner in Gilbert + Tobin's Competition & Regulation group. Catherine provides advice in relation to electricity, gas and telecommunications regulation, and has advised both regulators and regulated entities in regulatory determination processes and merits reviews of those processes. Prior to working at Gilbert + Tobin, Catherine spent six years at the Australian Competition and Consumer Commission involved in infrastructure regulation and two years as a legal advisor at the Office of Gas and Electricity Markets in the United Kingdom.

In preparing this report Catherine has been assisted by Geoff Petersen and Samuel McSkimming, lawyers in the Competition & Regulation group at Gilbert + Tobin.

2 Submissions during the regulatory process

2.1 The current framework

The NER currently requires consultation on a regulatory proposal submitted by a network service provider (**NSP**) and on a draft decision by the AER.[1] As part of these consultation processes the AER must invite submissions from any person, including the NSP. The AER is to invite submissions on the regulatory proposal and draft decision within a specified timeframe, which must be no earlier than 30 business days from the date of the proposal or draft decision. The AER must have regard to any submissions received within the specified timeframe and may (but is not required to) have regard to late submissions.[2]

In addition to making written submissions, the NSP may (but is not required to) submit a revised proposal within 30 days of the AER's draft decision. In submitting a revised proposal the NSP is limited to making revisions required to address matters raised in the AER's draft decision. Clause 6.10.3 (and similarly clause 6A.12.3) relevantly states:

> (a) In addition to making written submissions, the Distribution Network Service Provider may, not more than 30 business days after the publication of the draft distribution determination, submit a revised regulatory proposal to the AER.
>
> (b) A Distribution Network Service Provider may only make the revisions referred to in paragraph (a) so as to incorporate the substance of any changes required to address matters raised by the draft distribution determination or the AER's reasons for it.

The AER may invite submissions on a revised proposal but is not required to.[3]

2.2 AER Rule Change Proposal

The AER Rule Change Proposal states that the existing rules have undermined the incentives for NSPs to provide complete proposals including their best available information. The AER submits that NSPs have been making substantial submissions subsequent to their proposal or revised proposal, containing information which otherwise should have formed part of their proposals.[4]

The AER considers that this creates two problems:[5]

- it denies the opportunity for other stakeholders to consider this further information when making submissions to the AER; and
- once all of the prescribed consultation requirements are adhered to, the AER is left with less (or arguably insufficient) time to assess any revised regulatory or revenue proposal, take into account submissions and make a final determination.

[1] NER, clauses 6.9.3, 6.10.2, 6A.11.3, and 6A.12.3.

[2] NER, clauses 6.10.1 and 6A.12.1.

[3] NER, clause 6.10.3(e).

[4] AER, *Economic Regulation of Transmission and Distribution Network Service Providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, September 2011, p 85.

[5] AER, *Economic Regulation of Transmission and Distribution Network Service Providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, September 2011, p 87.

The AER acknowledges that there are circumstances in which it is appropriate for an NSP to make a submission after lodging its revised proposal, including where there are common issues across several proposals that are being considered concurrently by the AER. In other circumstances however, the AER argues that NSPs should be precluded from making submissions after lodging their revised proposal.

The AER's proposed solution has two limbs:

- First it is proposed that submissions by NSPs be restricted to circumstances where there are concurrent proposals being assessed and an NSP wishes to address material differences between its own proposal and that of another NSP being considered concurrently.[6] All other submissions by an NSP that do not form part of its proposal or revised proposal must not be taken into account by the AER.

- Secondly it is proposed that the AER's discretion to consider late or out-of-scope submissions be removed.[7] Rather than retaining discretion to consider such submissions, the AER proposes that the NER be amended so that it must not consider any late or out-of-scope submission (this would include an NSP submission that does not form part of its proposal or revised proposal, as referred to in the first point).

2.3 Assessment of the AER Rule Change Proposal

The NER as currently drafted appears to contemplate at least four circumstances in which an NSP may need to make further submissions to the AER, after submission of its regulatory proposal:

- having reviewed a proposal lodged contemporaneously by another business, the NSP may need to make a submission on that proposal in order to contextualise differences between its proposal and that lodged by the other business (this is allowed by clauses 6.9.3 and 6A.11.3);

- following the AER's draft decision, the NSP may need to make revisions to its proposal in order to incorporate the substance of issues raised in the AER's draft decision (contemplated by clauses 6.10.3 and 6A.12.3);

- the NSP may need to otherwise respond to the AER's draft decision where it does not wish to incorporate the substance of issues raised by the AER (contemplated by clauses 6.10.2 and 6A.12.3); and

- the NSP may need to respond to further consultation initiated by the AER after the draft decision, where the AER has undertaken new analysis which it seeks to rely on in its final determination (this is currently contemplated by clauses 6.5.6(e)(3), 6.5.7(e)(3), 6A.6.6(e)(3) and 6A.6.7(e)(3), although the AER now proposes to remove these provisions – refer to section 3).

The AER's proposal would operate to foreclose NSP submissions in the third and potentially the last of these circumstances[8], while maintaining scope for submissions in the other two circumstances. The AER appears to consider that the only legitimate

[6] AER proposed clause 6.9.3(c) and 6.10.2(c).

[7] AER proposed clause 6.14.1.

[8] As noted in section 3 below, one effect of the AER's proposed amendments would be to remove the requirement to publish (and therefore consult on) new analysis that is to be relied on in making a final determination. Whilst the AER may potentially still do this it would not be required to (refer to section 3 below for further discussion of this issue).

reason for an NSP lodging a further submission (beyond its proposal and / or revised proposal) is where it is commenting on differences between its proposal and that lodged by another NSP.

(a) The experience so far with the existing rules

The experience so far indicates that NSPs may need to make further submissions in a range of circumstances, not limited to the one circumstance contemplated by the AER. A review of submissions by Distribution Network Service Providers (**DNSP**) made after lodgement of their revised proposal is presented in Table 1. This review indicates that:

- The most common reason for DNSPs making further submissions is to respond to matters raised in the draft decision that are not the subject of revisions to the DNSP's regulatory proposal. In many cases DNSPs do not incorporate all of the revisions proposed by the AER in its draft decision and wish to make further submissions in support of their original proposal in light of the AER's reasons for its draft decision. The AER's draft decision will often state reasons for rejecting the NSP's original proposal and include or refer to evidence which the AER considers supports its decision. DNSP submissions made subsequent to the draft decision will typically respond to the AER's reasons and supporting materials and set out why the DNSP has not revised its proposal in light of the AER's draft decision. This is an important part of the regulatory process as it allows the AER's evidence (including any expert evidence) and reasons for rejecting the NSP proposal to be properly tested. In a number of cases, this has exposed flaws in the AER's evidence and/or resulted in a change in AER approach between draft and final decisions.[9]

- While DNSPs appear to have generally endeavoured to provide further submissions at the same time as their revised proposal, this has proved difficult in many cases. For most DNSPs, the six-week timeframe for responding to the draft decision and revision of the regulatory proposal runs over the Christmas / New Year period.[10] This may create some obvious difficulties in collection of information and preparation of the revised proposal. Therefore it appears that as a practical matter DNSPs have often provided an initial submission with their revised proposal on the due date for the revised proposal, followed by a further supporting submission on the due date for submissions on the draft decision.

- Some DNSP submissions are to provide new information that has come to light after submission of the regulatory proposal. Examples of this include the submissions made by the Victorian DNSPs subsequent to submission of their revised proposals in relation to the outcomes of the Victorian Bushfire Royal Commission.[11] The royal commission had delivered its final report just ten days after the due date for revised proposals.

[9] For example in making distribution determinations for Victoria, the AER made substantial amendments to its energy sales forecasts between its draft and final decisions, in response to submissions made by NSPs. The NSPs accepted some of the adjustments made to their forecasts in the draft decision (specifically the moderation of presumed impacts of energy efficiency measures) but also pointed out flaws in the methodology relied on by the AER. A number of these flaws (in particular the AER's reliance on out of date VENCorp data) were acknowledged by the AER in its final decision, resulting in a substantial downward adjustment of its energy sales forecasts for Victoria (AER, *Final decision: Victorian electricity distribution network service providers distribution determination 2011–2015*, October 2010, p 147).

[10] For DNSPs in New South Wales, Queensland, South Australia and Tasmania, the AER's draft decision is published at the end of November and their revised proposal is due around the second week in January. Only in Victoria does this process occur in the middle of the calendar year.

[11] Citipower / Powercor, *Victorian Bushfire Royal Commission – Implications of Final Report for the EDPR*, 19 August 2010.

- Several submissions made subsequent to a revised proposal were to address matters raised in stakeholder submissions. In some cases stakeholders have raised significant new issues or proposed alternative methodologies for calculation of various inputs (e.g. the Energy Users Association of Australia have proposed alternative methodologies for determining the cost of debt and greater use of benchmarking in assessment of expenditure forecasts).[12] DNSPs have sought to respond to these submissions in order to address the matters put against their regulatory proposals.

- Some submissions have been made in response to new material or analysis introduced by the AER late in the process (i.e. after the draft decision). In some cases the AER has consulted formally on this new analysis, while in other cases it has not. Examples of where the AER has and has not consulted on new analysis are set out in section 3.

Table 1: Submissions by DNSPs made after submission of revised regulatory proposal

DNSP	Date	Content of submission	Permitted under AER proposal?
Energy Australia	16 Feb 2009	Response to draft decision and provision of further information in support of revised proposal. This included a submission and expert report in response to the AER's decision to withhold agreement to the proposed averaging period, a decision which the Tribunal ultimately found to be in error.[13]	No
Energy Australia	16 Feb 2009	Addressing differences between EA and other NSP submissions.	Yes
Energy Australia	6 March 2009	Responding to other stakeholder submissions.	No[14]
Country Energy	16 Feb 2009	Response to draft decision, including updating of forecasts that had not been updated in time for the revised proposal.	No
Integral	16 Feb 2009	Response to draft decision and provision of further information in support of revised proposal (including updates for impact of global financial crisis on WACC and sales forecasts).	No
ActewAGL	16 Feb 2009	Further detail on mechanism for recovery of direct costs associated with ACT feed-in tariff scheme.	No

[12] For example: Energy Users Association of Australia, *Submission to the Australian Energy Regulator on its Draft Decision on the Revenue and Price Proposals by the Victorian Electricity Distributors for the Period 2011-2015*, August 2010; Bruce Mountain, *Analysis of the Australian Energy Regulator's assessment of the Debt Risk Premium in its Draft Decision on price controls for the period 2010/11 to 2015/16 for the Victorian electricity distributors: A report to the Energy Users Association of Australia*, August 2010.

[13] *Application by EnergyAustralia and Others* [2009] ACompT 8.

[14] The AER notes that the proposed rules would not restrict NSPs' ability to make submissions on submissions from other stakeholders into the transmission or distribution determination process (AER, *Economic Regulation of Transmission and Distribution Network Service Providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, September 2011, p 89), however it is not clear that this would necessarily be permitted under the AER's proposed drafting.

DNSP	Date	Content of submission	Permitted under AER proposal?
Energex	15 Feb 2010	Response to draft decision and provision of further information in support of revised proposal.	No
ETSA Utilities	15 Feb 2010	Response to stakeholder submissions on ETSA's original proposal in relation to network utilisation.	No
ETSA Utilities	15 Feb 2010	Submission and expert report in relation to debt raising costs (foreshadowed in revised proposal that ETSA had engaged PwC to evaluate debt raising costs).	No
Citipower / Powercor	19 Aug 2010	Submission in relation to findings of the Victorian Bushfire Royal Commission, which delivered its final report on 31 July 2010, 10 days after the date for revised proposals.	No
Citipower / Powercor	6 Aug 2010	Expert report from PwC re close out of S factor scheme	No
Citipower / Powercor	19 Aug 2010	Submission and witness statement in relation to debt raising costs, including correction to figures in revised regulatory proposal.	No
Jemena	19 Aug 2010	New information on three issues: (i) bushfire pass through event (information from the Royal Commission report dated 31 July 2010); (ii) new electricity safety regulations developed in consultation with Energy Safe Victoria ; and (ii) the value of imputation credits (a new expert report on multicollinearity).	No
UED	20 Aug 2010	Expert reports in relation to sales forecasts and gamma (multicollinearity).	No
Citipower / Powercor / Jemena / UED / SPAusnet	24 Sep 2010	Response to expert report on DRP submitted by the Energy Users Association of Australia in response to the AER draft decision.	No
Jemena	24 Sep 2010	Response to submissions from other stakeholders (including submissions from the Minister for Energy and Resources and the Streetlight Group of Councils, both interveners in the subsequent merits review proceedings).	No
Citipower / Powercor / Jemena / UED / SPAusnet	11 Oct 2010	Response to AER consultation on new approach to determining the debt risk premium. AER ultimately changed its approach following this consultation, recognising some of the points made in submissions.	Only if AER chooses to consult (see section 3)

Under the AER Rule Change Proposal, almost all of the DNSP submissions listed in Table 1 would have been precluded (or at least the AER would likely have been precluded from given any consideration to them). The one exception to this would have been EnergyAustralia's submission addressing differences between its proposal and those of the other NSW DNSPs.

Additionally, the AER Rule Change Proposal would have precluded submissions at the time of the revised proposal, to the extent that those submissions supported positions in the original proposal (i.e. to the extent that the DNSP was not revising its proposal to incorporate the substance of matters raised in the AER draft decision). DNSPs would have been prevented from responding to any reasoning or evidence relied on by the AER in coming to its preliminary decision and would have been limited to revising their proposal in accordance with the decision.

(b) Restriction of circumstances in which submissions may be accepted by the AER

Given the range of circumstances in which submissions have been made (and may be made in future), the AER Rule Change Proposal would seem overly prescriptive and unduly restrictive in this regard.

The submissions listed above are entirely appropriate given the circumstances and would be likely to assist the AER in making its decision. Where new and relevant information comes to hand it is appropriate that the NSP have an opportunity to identify this and allow the AER to take it into account. Restricting the AER's ability to take into account new or updated information will reduce the quality of decision-making. In this regard it is noted that the AER often "updates" various inputs just prior to the making of its final decision, which we understand sometimes occurs without consultation with the relevant NSP or other stakeholders.

Moreover, as a matter of procedural fairness, an NSP should be entitled to respond to reasoning and evidence put against its proposal by other stakeholders. The determination to be made by the AER is based on the NSP's costs and other business information. To the extent that other stakeholders are making submissions as to the appropriate level of costs for the NSP, the NSP itself should have an opportunity to respond to these submissions. Exposing the AER's analysis and evidence to scrutiny by the NSP (and other stakeholders) allows its probative value to be properly tested, and ensures that only the most robust analysis and evidence is relied upon in making a determination. On the other hand opacity of analysis and evidence creates a risk that decisions will be based on flawed evidence and at the very least reduces confidence in the robustness of decision-making.

To the extent the AER perceives there are deficiencies in the NER that are resulting in less consultation and time for the AER to make its decision, reducing the opportunity for NSPs to put forward relevant information in the determination process is not the right response. Such an approach will almost certainly exclude submissions which are justified and prevent the AER from having regard to highly relevant and useful information.

If there is an issue with misuse of the opportunity to provide submissions on the draft to withhold information from the original submission, then the solution is to include a discretion to give less weight to late or out-of-scope submissions where there is no sufficient justification for their lateness. This would allow the AER to have regard to submissions where they are relevant but justifiably late or out-of-scope, while giving little

or no weight to late material that ought to have been included with the NSP's regulatory proposal.

The discretionary model currently applies under the NER[15], and therefore there appears to be no need for amendment. Nonetheless, in section 2.4 an alternative model is set out which could also operate to address the concerns raised by the AER with the current framework.

(c) Preclusion of NSP submissions on the draft decision (other than revisions)

As noted above, one effect of the AER Rule Change Proposal is to prevent NSPs from making submissions on the AER's draft decision. The NSP may revise its proposal to incorporate the substance of any changes required to address matters raised by the draft determination or the AER's reasons for it (as it can under the existing rules) but it would be precluded from making submissions on other matters.

The AER appears to consider that the existing framework which allows for submissions in response to the draft decision undermines NSP incentives for full upfront disclosure.[16] However NSPs cannot be expected to pre-empt or foresee what will be put against their proposal so in effect cannot be given an incentive to respond to the "unknown" in their original proposals. The opportunity for NSPs to respond to the draft decision is not simply another opportunity to put material in support of their original proposal, Rather, it is to allow NSPs to consider and assess the reasoning and evidence relied upon by the AER in its draft decision and identify any deficiencies or errors.

Moreover NSPs continue to face incentives to fully disclose all relevant information as early as possible in the process as this ensures that it will be given proper weight by the AER. As the AER has discretion to give less weight to late information, NSPs withholding information run the risk of this being given less weight (or no weight) by the AER in its decision-making. A further incentive is in the merits review provisions in the NEL. To the extent that an NSP conducts itself in a manner that results in the making of a decision of the AER being delayed, this is a ground on which the Tribunal may refuse to grant leave to apply for merits review.[17]

Once again, as a matter of procedural fairness, an NSP must be provided with an adequate opportunity to respond to matters put against its regulatory proposal. Allowing the NSP to respond provides for exposition of errors or deficiencies in the AER's reasoning and evidence and ensures that only the most probative analysis is relied on in making the final determination. It is in the AER's draft decision that the NSP will see for the first time the AER's reasons (and the material upon which those reasons are based) for not accepting any elements of the regulatory proposal. To ensure that the final decision is appropriate and properly considered, it is important that an NSP is provided with the opportunity to respond to the matters raised in the draft decision beyond those aspects where it revises its proposal.

[15] Currently, the AER may have regard to late submissions, but is not required to (NER, clauses 6.14(a), 6A.16(a)).

[16] AER, *Economic Regulation of Transmission and Distribution Network Service Providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, p 85.

[17] National Electricity Law, section 71H(2)(a)(ii).

Precluding any further submission by the NSP (other than revisions to its proposal) potentially diminishes the robustness of the regulatory process, a point that was recognised by the AEMC in its rule determination establishing Chapter 6A:[18]

> The Commission considers that well designed procedural requirements assist in compelling the regulator to administer the regulatory regime in an appropriate manner and for the business to put forward a complete and thorough Revenue Proposal. In this instance, an appropriate manner includes providing opportunities for regulated businesses and interested stakeholders to make submissions to the regulator, and provide an opportunity for full and thorough analysis of the submissions and the regulator's decision. This manner of transparent decision making is conducive to reducing regulatory risk, reducing the probability of error and decreasing the administrative costs of regulation.

The existing provisions of Chapter 6A (which allow for NSP submissions on the draft decision) were drafted with this in mind and also recognising the recommendations of the MCE Expert Panel on Energy Access Pricing.[19]

2.4 Alternative solutions to issues raised by the AER

The AER Rule Change Proposal seeks to address two problems that it says are created by NSPs making substantial submissions late in the process:

- the ability for other stakeholders to consider and make meaningful submissions is potentially compromised; and
- the timeframe for AER decision-making is compressed where substantial new information is provided subsequent to the regulatory proposal.

These are legitimate matters which warrant consideration. However for the reasons set out above what has been proposed by the AER may not be a proportionate solution and may in fact operate to reduce the efficacy and robustness of the decision-making process. An alternative process that would appear to address the AER's perceived concerns (if the AER's concerns are well founded) while promoting the robustness of decision-making would be to augment the consultation process and include greater scope for stakeholder participation and / or safeguards to ensure that the AER has sufficient time to consider all submissions.

An alternative means of promoting greater stakeholder involvement would be to introduce a process of submissions and cross-submissions on the draft decision and revised regulatory proposal. Under this model, provision for submissions on the draft decision and revised proposal by all stakeholders (including the NSP) would remain and there would additionally be an opportunity for cross-submissions shortly after this. Cross-submissions could be limited to responding to matters raised in primary submissions and could therefore be due a short time after primary submissions (say, two weeks afterwards). This model is used as a matter of practice by the New Zealand Commerce Commission.

Introducing a process of submissions and cross-submissions would potentially improve the robustness of the regulatory process by:

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[18] AEMC, *Rule Determination: National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18*, 16 November 2006, p 110.

[19] Expert Panel on Energy Access Pricing, *Report to the Ministerial Council on Energy*, April 2006, p 89.

- allowing all stakeholders (including the NSP) to consider and respond to the reasoning and evidence presented in the AER draft decision;

- allowing stakeholders to consider and comment on both the NSP's regulatory proposal and any further submissions made by the NSP in response to the draft decision; and

- allowing the NSP to respond to any submissions made by third parties on its regulatory proposal.

We note that this may require some adjustment to the decision-making timeframe, as an extra two weeks (or similar period) would be required for cross-submissions. However such an adjustment would be relatively minor, and would be justified given the benefits in terms of the robustness of the regulatory process.

Finally, it is important to note that augmenting the consultation process in this way would not alleviate the need for AER discretion in treatment of late submissions. There may still be circumstances in which further submissions are necessary, and the AER should maintain discretion to deal with such late submissions on a case-by-case basis. However, the fact that cross-submissions are available to respond to matters raised in other stakeholder submissions may potentially bear on the AER's exercise of its discretion, particularly if a late submission relates to matters that should have been dealt with in cross-submission.

3 Process-related changes to expenditure factors

3.1 The current framework

In each of clauses 6.5.6, 6.5.7, 6A.6.6 and 6A.6.7, certain factors are listed which the AER must have regard to in deciding whether forecast expenditure satisfies the relevant criteria. These expenditure factors include three matters that are referred to by the AER as "process factors".[20]

> (a) the information included in or accompanying the building block proposal;
>
> (b) submissions received in the course of consulting on the building block proposal;
>
> (c) analysis undertaken by or for the AER and published before the distribution determination is made in its final form.

A number of other expenditure factors appear in clauses 6.5.6, 6.5.7, 6A.6.6 and 6A.6.7 (referred to by the AER as "substantive factors"). These other factors and the AER's proposed changes to them are not considered as part of this report.

3.2 The AER Rule Change Proposal

The AER proposes that the "process factors" be moved from clauses 6.5.6 and 6.5.7, (6A.6.6 and 6A.6.7 for transmission) to Part E of Chapter 6 (6A) which deals with the decision-making process more generally. However, what the AER proposes is not a

[20] NER, clauses 6.5.6(e), 6.5.7(e), 6A.6.6(e) and 6A.6.7(e). These three factors are referred to as "process factors" in the AER Rule Change Proposal (AER, *Economic regulation of transmission and distribution network service providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, September 2011, p 34).

direct transposition of these process factors into Part E, but rather an augmentation and transposition.

It is proposed that the process factors be placed in clause 6.10.1 and 6.11.1 (6A.12.1 and 6A.13.1 for transmission) in the following amended form:

> Subject to the Law and rule 6.14, the AER must:
>
> (a) consider any written submissions made in accordance with rule 6.9;
>
> (b) consider any regulatory proposal submitted under rule 6.8 or 6.9;
>
> (c) have regard to analysis undertaken by or for the AER

The AER states that the movement of these factors removes the ambiguity that was created by co-location of procedural and substantive matters in the list of expenditure criteria.

Additionally, the AER considers that substantive amendment to the third process factor is required to remove the requirement for any AER analysis to be published prior to the distribution determination being made. The AER states that this requirement has the potential to make the decision making process unworkable within prescribed timeframes as it creates a cycle of publishing analysis which leads to further submissions and analysis.

3.3 Assessment of the AER Rule Change Proposal

When the "process factors" were drafted into the NER, the AEMC highlighted the importance of listing key inputs into the decision-making process and improving the transparency of the regime through prior publication of key AER analysis. The AEMC noted:[21]

> In relation to the comments on the specific criteria set out in the Proposed Rule, the Commission does not concur with the view that explicitly requiring the AER to consider the information contained in the Revenue Proposal and in submissions is unnecessary. Both the Revenue Proposal and submissions are key inputs into the regulator's assessment, and so should be referenced directly in the list of assessment criteria. The Commission also notes that the reference to 'published' analysis is intended to ensure that analysis conducted by, or on behalf of, the regulator is made available for public scrutiny, improving the transparency of the overall regime.

As was observed by the AEMC, transparency is a critical feature of good regulatory practice as it promotes confidence in the regime and provides for better quality decision making. Exposing analysis and reasoning to public scrutiny allows its probative value to be properly tested, and ensures that only the most robust analysis and evidence is relied upon in making a determination. On the other hand opacity of analysis and evidence creates a risk that decisions will be based on flawed evidence and at the very least reduces confidence in the robustness of decision-making. It follows from this that if transparency is to be removed from any part of the decision-making process, there would need to be substantial offsetting benefits to justify this.

[21] AEMC, *Draft Rule Determination: Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006*, 26 July 2006, p 55.

The AER suggests that the requirement to publish analysis prior to making a determination has the potential to make decision making processes unworkable. However, the AER does not refer to any specific problems encountered in recent processes, and our review of recent decisions does not reveal any problem with the requirement for publication and transparency of analysis.

In one case where the AER has been required to undertake further analysis, it has had sufficient time to publish and consult on this prior to making its determination. This was the case of the Victorian electricity distribution price review where the AER changed its approach to estimating the debt risk premium late in the process (after submission of revised proposals) in light of new information.[22] The AER was able to consult on its new approach and take into account submissions prior to making its distribution determinations for the Victorian DNSPs.[23] The AER ultimately changed its approach to determining the debt risk premium from that foreshadowed in its consultation, recognising some of the points made in submissions.

This can be contrasted with a situation where the AER has relied on new analysis and evidence in making a final determination, but has not published or consulted on this prior to issuing its determination. In making distribution determinations for South Australia and Queensland, the AER relied on two expert reports in relation to gamma (the assumed utilisation of imputation credits) which were not published or consulted on prior to the final decision being made. On review of the AER's gamma decision, the Tribunal ultimately found errors in the AER's interpretation of these expert reports.[24] Had the AER consulted prior to making its decision on the basis of these expert reports, these errors of interpretation may have been identified.

Thus, the experience so far demonstrates the benefits of transparency in terms of exposing errors or deficiencies in reasoning and ensuring that only the most probative evidence is relied on in decision-making. As the requirement for transparency does not appear to have caused difficulties so far (the AER only identifies *potential* for problems in future), it should be maintained in the NER.

4 Claims for confidentiality

4.1 The current framework

(a) Confidentiality claims in a regulatory proposal

In its regulatory proposal, a DNSP is required to provide an:

[22] Shortly after the Victorian DNSPs submitted their revised proposals, a number of events occurred which caused difficulties for the AER in applying its previously foreshadowed approach to determining the DRP. This included the cessation of publication of fair value curves by CBASpectrum (upon which the AER had previously relied as a source of data) the emergence of new information from recently issued bonds and the handing down of a decision on the debt risk premium by the Australian Competition Tribunal in the merits review proceedings brought by ActewAGL (*AER draft approach for measuring the debt risk premium for the Victorian Electricity Distribution Determinations*, 27 September 2010).

[23] It is apparent from the AER's final decision that it did take into account the submissions it received. Following consideration of these submissions, the AER materially changed its approach to determining the debt risk premium from that foreshadowed in its consultation (the AER decided that instead of placing equal weight on the Bloomberg fair value curve and the APT bond yield, it would place 75% weight on Bloomberg and 25% weight on the APT bond).

[24] *Application by Energex Limited (No 2)* [2010] ACompT 7, at [97]-[98]. The AER had relied on passages from one of these expert reports (a report by Professors McKenzie and Partington) to support its approach to determining the value of imputation credits. This approach involved averaging estimates from two different types of studies, an approach which the Tribunal concluded had no logic to it (*Application by Energex Limited (No 2)* [2010] ACompT 7, at [95]). The Tribunal stated that the passages relied on by the AER cannot underpin the its specific approach to the determination of theta.

> ...indication of the parts of the proposal (if any) the Distribution Network Service Provider claims to be confidential and wants suppressed from publication on that ground.[25]

Although there is not an equivalent provision for Transmission Network Service Providers (**TNSP**) in Chapter 6A or in relation to the submission of a revised proposal by a DNSP, to the extent a NSP does not want the AER to disclose information on the ground that it is confidential, as a matter of practicality, the NSP would need to identify this information.[26]

Once information is so identified, the AER must take all reasonable measures to protect that information from unauthorised use or disclosure.[27] The AER is however, permitted to disclose information to the Australian Competition and Consumer Commission (**ACCC**), the AEMC, the Australian Energy Market Operator (**AEMO**), or any consultant engaged by those bodies.[28] It is also authorised to disclose information in connection with the exercise of its statutory obligations,[29] where it has obtained written consent,[30] in connection with court or tribunal proceedings,[31] or to afford a party procedural fairness.[32]

Further, the AER has a power to disclose confidential information where it considers that the public benefit of so doing outweighs any detriment to the person that provided the information.[33] It is therefore open to the AER, where it considers that the integrity of a public consultation process may be undermined by confidentiality claims, and an NSP refuses to consent to disclosure, to release information on public benefit grounds. It is also open to the AER to disclose information that is not genuinely confidential, given the clear public interest in transparency.

(b) Confidentiality claims in consultation submissions

Under the NER, the AER is required to consult publicly on a NSP's regulatory proposal,[34] with any person being able to make a submission. It is open to a person making a submission to identify as confidential certain material in their submission, with the AER not being authorised to publish that material,[35] subject to the circumstances set out above where disclosure is authorised.[36] As with confidential information in a regulatory proposal, the AER is able to disclose confidential information in a submission on public benefit grounds or with written consent.

Further, where confidential information is received in a submission, the AER is explicitly authorised to:

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[25] NER clause 6.8.2(c)(6).

[26] Section 44AAF of the *Competition and Consumer Act 2010* (Cth) would then apply to this information (section 18 of the National Electricity Law).

[27] *Competition and Consumer Act 2010* (Cth), s 44AF(1); National Electricity Law, s 18

[28] *Competition and Consumer Act 2010* (Cth) s 44AF(3) ; National Electricity Law, s 18

[29] National Electricity Law, section 28W.

[30] National Electricity Law, section 28X.

[31] National Electricity Law, section 28Y.

[32] National Electricity Law, section 28Y.

[33] National Electricity Law, section 28ZB.

[34] NER clauses 6.9.3 and 6A.11.3.

[35] NER clauses 6.14(d), 6A.16(d) and section 44AAF of the *Competition and Consumer Act 2010* (Cth).

[36] NER clauses 6.14(f), 6A.16(f) and section 44AAF of the *Competition and Consumer Act 2010* (Cth).

> ... give such weight to [that] confidential information ... as it considers appropriate, having regard to the fact that such information has not been made publicly available.[37]

There is not an equivalent provision with respect to confidential information received in a regulatory proposal.

4.2 The AER Rule Change Proposal

The AER claims that it does not have the ability to determine the weight that should be afforded to information in a regulatory proposal in light of what it considers to be the opportunity for stakeholders to scrutinise and comment on the information.[38]

The AER further submits that the current rules do not permit the AER to determine the weight that should be given to information which is subject to a claim for confidentiality.

> ...the current rules do not provide for the AER to exercise its judgment determining the weight that is to be given to confidential information in a regulatory or revenue proposal.[39]

This, the AER claims, is inconsistent with the position with respect to submissions and that the Rules should therefore be amended in order to provide the AER with the same discretion to apply the weight that it considers to be appropriate to confidential information as it has under the NER in relation to confidential information in stakeholders' submissions.[40] The AER submits that such an amendment would improve the balance to be struck between confidentiality and transparency by providing an incentive on NSPs to restrict confidentiality claims.[41]

In its supporting materials the AER does not identify a particular instance where it would have exercised a power to determine the weight given to confidential information in a regulatory proposal. In lieu of that, we have reviewed the AER's electricity distribution and transmission determinations to identify examples where the AER has been referred to any restriction on its ability to test the veracity of confidential information due to confidentiality restrictions, and has considered itself "unable to determine the weight" that should be afforded to that information. More broadly, we have reviewed the AER's past decisions to determine whether the AER has previously found that an NSP has made excessive confidentiality claims.

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[37] NER clauses 6.14(e) and 6A.16(e).

[38] AER, *Economic regulation of transmission and distribution network service providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, p 18.

[39] AER, *Economic regulation of transmission and distribution network service providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, p 90.

[40] AER, *Economic regulation of transmission and distribution network service providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, p 91.

[41] AER, *Economic regulation of transmission and distribution network service providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, p 18.

(a) The AER can already determine the weight that should be afforded to information in a regulatory proposal

A review of regulatory determinations has not revealed any instances where the AER has lacked *"the ability to determine the weight that should be afforded to ... information [in a regulatory proposal]"*.[42]

This is unsurprising, as the AER, being a decision-maker whose role includes assessing the relative weight to be given to a whole range of material and evidence, is able to determine the weight that it will give to that information submitted to it in a regulatory process. While the AER lacks an explicit statutory power to determine the appropriate weight to be given to information that is subject to a claim for confidentiality, it is clearly open to the AER to weight that information (regardless of its source) by reference to whether it is satisfied that the information has been thoroughly tested and is thus reliable.

It follows that where an obligation of confidence prevents the AER being able to test evidence provided to it in a regulatory proposal, it is open to the AER, subject to the dictates of procedural fairness and reasonableness, to give that evidence less weight or to reject it. This is not something that requires legislative authority, but is an obvious and necessary part of any decision-making process where the veracity of information needs to be established.[43] In short, if the AER cannot be satisfied that certain information is accurate or relevant due to restrictions on its use, it is clearly open to the AER to give it less probative value. This is apparent in the AER's past practice and in certain of its decision-making guidelines.

For example, in at least two prior revenue determinations, NSPs have sought to rely on energy demand forecasts prepared by the National Institute of Economic and Industry Research (**NIEIR**). On both occasions, the AER found that, due to its inability to assess the proprietary NIEIR methodology, it could not be satisfied that the model was probative.[44] The AER did not suggest in either case that this approach was not open to the AER. By way of further example, in a number of decision-making guidelines, the AER indicates as a matter of general principle that as the AER may be restricted from testing the veracity of information that is subject to a claim for confidentiality "*it may be necessary to give less weight to the information in making its decision"*.[45]

The ability of the AER to appropriately weight information that is subject to a claim for confidentiality and that the AER considers it is unable to test is not equivalent to what is now proposed in the AER Rule Change Proposal. For the reasons given below, the AER's proposed change will substantially alter the calculus it applies when assessing confidential information.

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[42] AER, *Economic regulation of transmission and distribution network service providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, p 18.

[43] It is a requirement that the AER make its decision on the basis of probative material; that is, upon material that tends logically to show the existence or non-existence of facts relevant to the issue to be determined. Failure to comply with this requirement may amount to a judicially reviewable error of law: *Australian Broadcasting Tribunal v Bond* (1990) 170 CLR 321 at 358. There is not, nor there could be, a requirement for the AER to make its decision on the basis of unreliable (and therefore, not probative) material. Further, where the material on which the AER proposes to base its decision has *any* probative value, the relative weight to be placed on that material is a matter for it: *R v Deputy Industrial Injuries Commissioner; Ex parte Moore* [1965] 1 QB 456 at 488 (per Diplock LJ); *Sloane v Minister for Immigration Local Government & Ethnic Affairs* (1992) 37 FCR 429 (per French J). It would therefore appear to be open for the AER to appropriately weight information where it was unable to satisfy itself as to the veracity of the information.

[44] AER, *Queensland Distribution Determination 2010 – 11 to 2014-15: Final Decision*, May 2010, p 61; SA decision, p.58 AER, *South Australia Distribution Determination 2010 -11 to 2014-15: Final Decision*, May 2010, pp 58, 66.

[45] AER. *Regulatory Test Dispute Resolution Guidelines*, November 2007, pp 21 – 22; see also, AER, *Access Arrangement Guideline*, March 2009, p 35.

(b) There is no evidence that excessive claims of confidentiality are undermining the regulatory process

We have not been able to identify a (public) example of the AER indicating that confidentiality claims were excessive, and exercising its powers to require the disclosure of that material.[46]

Indeed, the sole instance where we have identified the AER voicing concerns as regards the provision of confidential information (and then, not in a regulatory proposal) was with respect to a confidential dataset that the AER erroneously made public. In the course of the NSW Distribution Determination, EnergyAustralia provided information to the AER in response to certain information requests, from which the AER derived a schedule of prices that was disclosed in a draft supplementary decision.[47] EnergyAustralia claimed, and the AER accepted, that this material was confidential and its disclosure had breached the provisions of the National Electricity Law, and it was subsequently removed from the public record.[48] There does not seem to have been any question that the relevant information was reliable, given that the AER had sought to rely on it, and equally, no question that the material was in fact confidential, given that the AER accepted EnergyAustralia's request for confidentiality.

Nevertheless, the AER indicated that:

> The AER considers that in the absence of competitive pressures, the NSW DNSPs should give greater consideration to their customers in an effort to ensure that they understand the basis on which their prices have been developed and to allow them to make informed submissions to the AER.
>
> In the absence of full disclosure of information, the AER considers that the next best option is ensuring regulatory accountability through transparency of its own regulatory processes. The AER is hopeful that this will provide customers a degree of comfort that the information the AER has relied upon is both credible and consistent.[49]

There is no question that confidentiality claims ought not to undermine the integrity of a public and transparent decision-making process. However, in this instance, it is notable that the AER did not invoke its power to require EnergyAustralia to disclose the information, nor did it indicate that confidentiality claims limited its ability to assess the data provided.

4.3 Assessment of the AER Rule Change Proposal

There is a clear difference between a person voluntarily making a submission to a regulator which is required by law to conduct a public consultation process, and a person being compelled by statute to disclose business information to a public authority. In the former case, the expectation of confidentiality is attenuated by the voluntary nature of the disclosure, whereas in the latter it is naturally heightened by the increased commercial risks and sensitivities associated with compelling the production of business records.

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[46] It is possible that the AER has privately indicated that NSPs that it would so were confidentiality claims not withdrawn.

[47] AER, *New South Wales Distribution Determination 2009-10 to 2013-14: Final Decision*, 28 April 2009, p 336.

[48] AER, *New South Wales Distribution Determination 2009-10 to 2013-14: Final Decision*, 28 April 2009, p 336.

[49] AER, *New South Wales Distribution Determination 2009-10 to 2013-14: Final Decision*, 28 April 2009, p 336.

Such risks are particularly acute in the context of revenue determinations, given the requirement that regulatory proposals contain sensitive, forward-looking cost and revenue data. It is for this reason that the regulatory framework contains strong protections with respect to information that is compulsorily provided to the AER, which necessarily differ from the position with respect to information that is volunteered to the AER by a third party.

It follows that the Rule Change Proposal cannot be described as an uncomplicated amendment to make the NER internally consistent. There are important and necessary differences in the NER between the treatment of information that is voluntarily disclosed and information that is compulsorily disclosed.

(a) The AER Rule Change Proposal would undermine the quality of decision-making

As stated above, the AER has an ability to appropriately weight information where it forms a view that the information is not reliable or relevant. That particular ability is an inherent part of fact-finding and regulatory decision-making, and does not require explicit authorisation in the NER. A clear basis on which the AER might find that information is unreliable is that it is not been able to thoroughly test it by way of market inquires due to confidentiality restrictions.

The AER Rule Change Proposal goes beyond this particular ability however, by permitting the AER to give information less weight even where it has not formed a view that the information is unreliable. In particular, the proposed amendment to the Rules reads:

> The AER may give such weight to confidential information ... in a regulatory proposal or ... in a revised regulatory proposal, as it considers appropriate, having regard to the fact that such information has not been made publicly available.

This provision would appear to give the AER an unconfined discretion to assign weight to confidential information in a regulatory proposal. The power would potentially be extremely broad, and would go beyond the AER giving weight to information in the context of assessing whether the material is reliable and other circumstances concomitant with good decision-making. It would be open to the AER, for example, to rely on this provision to disregard relevant considerations due to their status as confidential, not because the AER had reason to believe they lacked relevance, reliability or probity.

Such a broad discretion to give less weight to information for the sole reason that it was subject to a claim for confidentiality would be undesirable and has the potential to undermine the integrity of the AER's decision-making processes. It ought reasonably to be expected that the AER would have regard to all relevant information provided to it by an NSP, and would give weight to that information on the basis of its probative value. It is not desirable that the AER would give weight to relevant information based on other considerations, including broader considerations about the public interest in transparency. It would, in our view, compromise the ability of the AER to reach a correct and preferable decision under the NER for it to disregard or give less weight to probative information, regardless of the merit of its reasons for doing so.

(b) The AER Rule Change Proposal is disproportionate to deal with perceived concerns that there are excessive claims for confidentiality

That we are cautious about supporting a Rule Change Proposal that would allow the AER to disregard relevant, reliable or probative data, is not to say that we do not share the AER's view that there is a clear public interest in transparent decision-making. Rather, our point is simply that allowing the AER to disregard valuable information and thereby

potentially compromise the quality of the relevant decision cannot be the least cost way to maximise transparent decision-making.

It is first worth noting, as above, that on a review of the AER's decisions, we have not found any support for the view that excessive confidentiality claims are undermining transparency.

That said, to the extent that there is a problem, facilitating greater reliance by the AER on its existing powers to compel the disclosure of confidential information would clearly be a superior alternative to the AER Rule Change Proposal. Those powers allow the AER to disclose information when it is in the public interest for it to do so. This directly addresses the relevant problem (that is, transparency), unlike the AER Rule Change Proposal that only indirectly encourages disclosure and only then by altering in uncertain ways the character of the AER's substantive decision-making processes.

Further options open to the AER would include developing systems for limited disclosure to third parties, including greater use of confidentiality rings and/or third party non-disclosure agreements. Such limited disclosure regimes are commonly used by regulators in other industries, including the ACCC. For example in telecommunications, the ACCC typically negotiates with carriers for limited release of confidential information to third parties, subject to those third parties executing appropriate confidentiality undertakings.[50] To our knowledge, the AER has never approached electricity NSPs and sought to implement such a solution.

The above position is consistent with previous public statements by the AER. The AER has previously recognised that it is inappropriate to apply a fixed rule to the weighting of information that is subject to a claim for confidentiality and that it is possible to put in place regimes for the limited disclosure of such information where that is appropriate. Referring to an earlier decision of the ACCC in respect of TransGrid, the AER noted:[51]

> As a general rule, the AER does seek to disclose submissions relating to a regulatory decision to interested parties. However, the AER cannot adopt an inflexible rule of rejecting (or accepting) confidential submissions in every case. It must consider the merits and the consequences of each claim of confidentiality. In its not unknown for parties to submit information to a regulator on a confidential basis, or for the regulator to accept information on that basis where a claim for confidentiality is properly made. While procedural fairness will usually require that other interested parties are given a reasonable opportunity to comment on the substance of the confidential submission, this is usually managed through negotiation with the party making the confidential submission on an appropriate mechanism for consultation.
>
> While there may be cases where confidential material can be accepted without any form of disclosure to interested parties, these are relatively rare. Equally, there may be rare instances where a regulator simply cannot accept material submitted in confidence. However, this was not such a case. There was a failure to properly pursue options for accepting TransGrid's submissions on a confidential basis and establishing an appropriate mechanism for consultation. Had this been done, it is likely that a regime could have been put in place to enable an appropriate degree of

[50] For example in its recent review of access pricing principles to apply to Telstra's declared fixed line services, the ACCC agreed a confidentiality regime with Telstra which allowed for limited release of Telstra's confidential information. Under the regime, third parties (including other carriers) who wished to gain access to Telstra's confidential information were required to provide confidentiality undertakings in favour of Telstra (<http://www.accc.gov.au/content/index.phtml/itemId/904344>).

[51] AER, *TransGrid 2004/05 – 2008/09 Revenue Cap: Application by TransGrid for Revocation and Substitution*, 13 February 2007, [5.4] – [5.5].

> disclosure to affected parties. Instead the ACCC declined to accept TransGrid's submissions and did not consider them in making its decision. This was an error...

As the AER correctly observes in the above quote, treatment of confidential information necessarily involves balancing the interests of the party submitting the confidential information, the interests of other stakeholders in being able to interrogate this information and the robustness of the decision-making process. In these circumstances it would seem appropriate for the AER to consider alternatives to simply discounting the probative value of information submitted to it, to the extent that it perceives any problem with the current arrangements for treatment of confidential information.

5 Correcting for material errors

5.1 The current framework

(a) Chapter 6

Under Chapter 6, the AER may (but is not required to) revoke a distribution determination during a regulatory control period if it appears to the AER that the determination is affected by a material error or deficiency of one or more of the following kinds:

- a clerical mistake or an accidental slip or omission;
- a miscalculation or misdescription;
- a defect in form;
- a deficiency resulting from the provision of false or materially misleading information to the AER.[52]

If the AER revokes a distribution determination because the AER considers that the determination is affected by a material error or deficiency, the AER is then required to make a new distribution determination in substitution for the revoked determination, which then applies for the remainder of the regulatory control period.[53] The substituted determination must only vary from the revoked determination to the extent necessary to correct the relevant error or deficiency.[54]

(b) Chapter 6A

Under Chapter 6A the AER may only revoke a revenue determination during a regulatory control period where it appears to the AER that:

- the total revenue cap was set on the basis of information provided by or on behalf of the relevant TNSP to the AER that was false or misleading in a material particular; or
- there was a material error in the total revenue cap.[55]

[52] NER clause 6.13(a).
[53] NER clause 6.13(b).
[54] NER clause 6.13(c).
[55] NER clause 6A.15(a).

If the AER revokes a revenue determination because it appears to the AER that the total revenue cap was set on the basis of information that was false or misleading in a material particular, the AER must make a new determination in substitution for the revoked revenue determination to apply for the remainder of the regulatory control period.[56]

If the AER revokes a revenue determination because it appears to the AER that there was a material error in the total revenue cap, the substituted revenue determination must only vary from the revoked revenue determination to the extent necessary to correct the relevant error.[57]

In drafting the provisions in Chapter 6A relating to the circumstances in which a transmission determination could be revoked by the AER, the AEMC was cognisant of the need to clearly set out the circumstances in which the AER could revoke and remake the determination:[58]

> The Commission has maintained the view that the circumstances under which the AER may revoke and remake a revenue cap determination should be clearly set out in the Rules in order to increase the certainty and transparency associated with the regulatory framework, and to maintain the incentives built into that framework.

The AEMC also explains the approach it has taken to the drafting of the provision that sets out to the limitation on the AER in remaking the determination where the determination has been revoked on the ground that it appears to the AER that the determination was made on the basis of false or misleading information:[59]

> The Rule Proposal also clarifies that, where a revenue cap determination is revoked as a result of a material error, the new revenue cap determination made by the AER can only vary from the original determination by the amount necessary to correct the error. In contrast, where the revocation is as a result of the provision of misleading information by the TNSP, the new revenue cap determination is not limited to solely adjusting for the impact of the misleading information. The Commission considers the broader scope of the re-determination to be appropriate in these circumstances, as it provides additional incentives on the TNSP to ensure that they do not provide misleading information.

5.2 The AER Rule Change Proposal

The AER identifies what it considers to be three issues with the NER provisions dealing with the correction of material errors. These are:

- that it is conceivable that a material error may arise from errors outside the scope of the prescribed list of errors in Chapter 6;
- the ability in Chapter 6A for the final decision to be changed more than the extent necessary to correct an error, where that error is caused by the provision of false and misleading information, has the potential to undermine the finality of the decision making process by reopening matters not necessary for the correction of the error; and

[56] NER clause 6A.15(b).

[57] NER clause 6A.15(c).

[58] AEMC, *National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18: Rule Determination*, 16 November 2006, p 122.

[59] AEMC, *Review of the Electricity Transmission Revenue and Pricing Rules – Transmission Revenue: Rule Proposal Report, Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006*, February 2006, p 51.

- in the event an error is to be corrected, the AER is not afforded a power to 'amend' a distribution determination or transmission determination, it is conceivable there may be circumstances where it is more appropriate or preferable to do so rather than to 'revoke and substitute' the entire distribution or transmission determination.[60]

In light of the perceived deficiencies the AER has identified with the NER provisions dealing with the correction of material errors, the AER proposes changes that:

- remove the matters listed in Chapter 6 from which a material error may arise;
- provide for the AER to amend, in addition to revoke and substitute, distribution and transmission determinations;
- require that all material errors only be corrected to the extent necessary.[61]

The AER submits that the proposed changes address the perceived deficiencies by allowing the AER to deal consistently with the correction of material errors in Chapter 6 and Chapter 6A as well as:

- not limiting the matters a material error may arise from;
- requiring all material errors to be only corrected to the extent necessary;
- providing the AER with the flexibility to amend, instead of revoking and substituting, a distribution or transmission determination, in circumstances where that is all that is required to correct for the material error.[62]

5.3 Assessment of the AER Rule Change Proposal

(a) Balance between finality and "correct" decisions

The NER must strike an appropriate balance between finality of the distribution or transmission determination that is intended to apply for the length of the regulatory control period and for those determinations to be "correct" at the time they are made.

The AER has previously commented: [63]

> It is clear that a revenue cap in not to be re-opened lightly. The need for certainty is recognised in clauses 6.2.2(j), 6.2.3(d)(5)(iii) and 6.2.4(d). Once a revenue cap is established, it should not be subject to continued revision or re-agitation of issues. A revenue cap is established through an extensive investigation of relevant issues and a high degree of interaction with the TNSP. Numerous opportunities are provided to make submissions to the regulator in a process that generally draws out the relevant material. Once this process is completed, a revenue cap should not be re-opened on the basis of further submissions or a re-stating of earlier arguments.

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[60] AER, *Economic Regulation of Transmission and Distribution Network Service Providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, September 2011, pp 95 – 96.

[61] AER, *Economic Regulation of Transmission and Distribution Network Service Providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, September 2011, p 96.

[62] AER, *Economic Regulation of Transmission and Distribution Network Service Providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, September 2011, p 97.

[63] AER, *TransGrid 2004/05 – 2008/09 Revenue Cap: Application by TransGrid for Revocation and Substitution*, 13 February 2007, [5.10].

(b) Other avenues for the correction of error

In assessing the AER Rule Change Proposal it is also important to recognise the other aspects of the framework that provide avenues through which errors or defects in determinations (or the processes conducted in making those determinations) may be addressed. These avenues include judicial review and merits review.

Merits review is available of AER network revenue or pricing determinations. Affected or interested persons or bodies may apply to the Australian Competition Tribunal (**Tribunal**) for review of a distribution or transmission determination on one or more of the following grounds:

- the AER made an error of fact in its findings of facts, and that error of fact was material to the making of the decision;
- the AER made more than one error of fact in its findings of facts, and that those errors of fact, in combination, were material to the making of the decision;
- the exercise of the AER's discretion was incorrect, having regard to all the circumstances;
- the AER's decision was unreasonable, having regard to all the circumstances.[64]

Judicial review is also available of a distribution or transmission determination made by the AER.[65] The grounds for judicial review include:

- that a breach of the rules of natural justice occurred in connection with the making of the decision;
- that procedures that were required by law to be observed in connection with the making of the decision were not observed;
- that the person who purported to make the decision did not have jurisdiction to make the decision;
- that the decision was not authorized by the enactment in pursuance of which it was purported to be made;
- that the making of the decision was an improper exercise of the power conferred by the enactment in pursuant of which it was purported to be made;
- that the decision involved an error of law;
- that the decision was induced or affected by fraud;
- that there was no evidence or other material to justify the making of the decision;
- that the decision was otherwise contrary to law.

The provisions in the NER that provide for correction of error, merits review and judicial review are not substitutable and it will be obvious from the above that they are directed at

[64] National Electricity Law sections 71B and 71C.

[65] Schedule 3, *Administrative Decisions (Judicial Review) Act 1977* (Cth).

the correction of different things. That said, parties may seek for the correction of the same error through one or more of these avenues.

It is not clear from the AER Rule Change Proposal that the existing drafting in the NER is deficient in that the AER does not identify any "error" in a distribution or transmission determination that it considers it would have been appropriate to correct, but that it did not have the power to do so.

The AER has exercised the power to revoke and remake a transmission determination on numerous occasions under the relevant provision in the National Electricity Code. That provision was expressed in terms that are similar to those in the current Chapter 6A.[66] A summary of the occasions on which the ACCC / AER exercised the power to revoke and remake a transmission determination is set out below.

- **TransGrid**: On 2 February 2007 the AER revoked and substitute TransGrid's 2004/05 to 2008/09 revenue cap on the basis that it appeared to the ACCC that there was a material error in the setting of the revenue cap. TransGrid had submitted to the AER that material errors were made in the setting of its revenue cap, in particular that the ACCC failed to consider a number of TransGrid's submissions in relation to the use of data from the CBASpectrum service in order to determine the debt margin applicable to TransGrid. The AER determined that it had made an error in declining to accept TransGrid's submissions and in not considering them in making its decision.[67] The AER considered that it should consider TransGrid's submissions, and in so doing found that if it had considered those submissions at the time of making the revenue cap this would have lead to TransGrid's debt margin being established on the basis of data from the Bloomberg service.[68]

- **EnergyAustralia**: On 13 February 2007 the AER decided to revoke and substitute EnergyAustralia's 2004/05 to 2008/09 revenue cap. EnergyAustralia had requested revocation of the revenue cap on a similar basis to that of TransGrid described above. The TransGrid and EnergyAustralia revenue cap determinations had in effect been conducted by the ACCC through a single process. The ACCC determined that TransGrid's submissions relating to the use of CBASpectrum were relevant to the cost of debt for both TransGrid and EnergyAustralia and that the ACCC's failure to have regard to these submissions was a material error in both decisions.[69] For the same reasons set out in the AER's decision to revoke TransGrid's revenue cap, the AER determined that EnergyAustralia's revenue cap should be re-opened and the debt margin set on the basis of estimates taken from the Bloomberg service.[70]

- **Powerlink**: As part of the process of reviewing a contingent project application lodged by Powerlink in 2008, the AER identified an input error made in the post-tax revenue model (**PTRM**) used to determining Powerlink's expected maximum allowed revenue. The AER considered that the revenue cap set for Powerlink on

[66] The differences include: that the ACCC required the prior written consent of the parties affected by any proposed subsequent re-opening of the revenue cap, and also that the ACCC had the ability to revoke the revenue cap where there was a substantial change in ownership of network assets within the business of the transmission network owner and / or transmission network service provider following that change in ownership.

[67] AER, *TransGrid 2004/05 – 2008/09 Revenue Cap: Application by TransGrid for Revocation and Substitution*, 13 February 2007, [5.5].

[68] AER, *TransGrid 2004/05 – 2008/09 Revenue Cap: Application by TransGrid for Revocation and Substitution*, 13 February 2007, [5.8].

[69] AER, *Application by EnergyAustralia to Re-Open its 2004/05 – 2008/09 Revenue Cap: Decision*, 21 December 2007, [4.12].

[70] AER, *Application by EnergyAustralia to Re-Open its 2004/05 – 2008/09 Revenue Cap: Decision*, 21 December 2007, [5.1].

14 June 2007 for the regulatory period 2007-08 to 2011-12 should be revoked and a new revenue cap made for Powerlink for the remainder of the regulatory period.[71]

- **Murraylink Transmission Company**: In 2004 Murraylink Transmission Company (**MTC**) applied to the ACCC for the revocation and substitution of its revenue cap. The ACCC decided to revoke MTC's revenue cap and to make a new revenue cap in the form proposed by MTC, including because the ACCC: had made errors in the determination such as deducting the allowance for spare static VAr compensator equipment twice and misunderstanding (and therefore misapplying) a contingency allowance provision; and had made errors in calculating the interest during construction allowance.[72]

A review of the history of the application of the power to revoke and substitute for material error under Chapter 6A and its predecessor provision in the National Electricity Code does not indicate that there have been circumstances in which the ACCC / AER considered that it would have been desirable to revoke and substitute a determination, but it did not have the power to do so.

Similarly, a review of the distribution determinations made by the AER does not indicate that there have been circumstances where the AER thought that a determination should be revoked and substituted, but it did not have the power to do this. In this regard it may be noted that there have been examples of where service providers have requested the AER to exercise the power to revoke and substitute, but where the AER has declined to do so. For example, in its October 2010 distribution determinations for the Victorian distributors, the AER made a calculation error that was material to its decision on the debt risk premium. Shortly after the AER published its final decision the distributors requested that the AER correct the error pursuant to Rule 6.13. The AER declined to do this and the relevant distributors ultimately sought merits review of this error. The AER made submissions to the Tribunal that it accepted the distributors have established a ground of review in relation to the calculation of the debt risk premium. The matter is yet to be determined.

(c) Potential implications of the AER's Rule change proposal if accepted

The AER Rule Change Proposal would appear to significantly expand the possible matters that the AER could choose to correct through revocation and substitution of a distribution or transmission determination. The AER Rule Change Proposal also removes a number of safeguards around the power to revoke and substitute.

First, in relation to Chapter 6, the AER's proposal to remove the kinds of material errors or deficiencies that may be corrected through revocation and substitution obviously expands the circumstances in which the AER may select to address through revocation and substitution. The extent of these circumstances is unknown. It is also not limited to material errors, but extends to "deficiencies", and the precise nature of what may or may not be considered a "deficiency" is not clear. The potential breadth of what may constitute a "deficiency" is currently constrained in the existing provision because of the list of the kind of deficiencies that may be corrected. The AER's proposal, if accepted, would remove that constraint and introduce significant uncertainty as to the potential operation of the revocation and substitution power.

[71] Letter from the AER (Mike Buckley, General Manager, Network Regulation North Branch) to Powerlink (Gordon Jardine, Chief Executive), 8 July 2008.

[72] Letter from the ACCC (Sebastian Roberts, General Manager, Regulatory Affairs – Electricity) to Murraylink Transmission Company (Stephane Mailhot), 7 April 2004.

Second, in relation to both Chapter 6 and Chapter 6A, the AER's proposal to introduce the ability to "amend" a distribution or transmission determination where it appears to the AER that it has been made on the basis of false or misleading information or there was a material error or deficiency in the determination, this could have the effect of removing safeguards that exist in the current provisions. In particular, the making of the new distribution determination or transmission determination to apply for the remainder of the regulatory control period would appear to be capable of merits review, whereas "amendment" would not.

In terms of whether the AER requires "flexibility to amend"[73], instead of revoking and substituting a determination, it would appear from the examples given above that where the AER has revoked and substituted determinations under the provisions that existed in the National Electricity Code, the requirement to remake has not practically operated as a significant barrier. Given the potentially significant consequences of the AER amending a determination, it would seem appropriate that the correcting of that part of the determination affected by error be subject to the same type of process that was involved in the making of the original determination.

Finally, the AER proposes an amendment to Rule 6A.15 which would provide that to the extent the AER revokes and substitutes a determination because the total revenue cap was set on the basis of information provided by or on behalf of the relevant TNSP to the AER that was false or misleading in a material particular, the substituted revenue determination must only vary from the revoked determination to the extent necessary to correct the relevant error. Under the existing provision of the NER, this explicit restriction only applies to where the revocation and substitution was on the basis that there was a material error or deficiency in the determination. As noted above, the AEMC viewed the absence of the explicit restriction where the revocation and substitution was on the basis of false or misleading information as part of the incentive framework in Chapter 6A designed to encourage TNSPs to provide accurate information to the AER as part of the determination process.

Even in the absence of an explicit provision restricting the AER to only varying the revoked determination to the extent necessary to correct for issues arising from reliance on false or misleading information, it is likely that the AER would be impliedly restricted in this way given the broader national electricity objective and the revenue and pricing principles. Relative to the other issues raised by the AER's proposed amendments to the revocation and substitution provisions in the NER, this issue does not appear to be of particular importance.

[73] AER, *Economic Regulation of Transmission and Distribution Network Service Providers: AER's Proposed Changes to the National Electricity Rules – Rule Change Proposal*, September 2011, p 97.